



Body as a Process versus Body as an Object: The Consequences of How Larger-Bodied Women Are Portrayed in Health-Related Advertising

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ABSTRACT

This research investigates how health-related brands can benefit from the inclusion of larger-bodied women in advertising. Given that larger-bodied women are more representative of the average American consumer than the thin-bodied women typically featured in advertisements, these results have important implications for marketers. Across eight studies, our results show that framing the body as a process rather than as an object in health-related product advertisements that include images of larger-bodied women increases women consumers' purchase intentions for the advertised product. This effect occurs because women consumers' perceptions of their own humanness increase after exposure to body as a process versus body as an object messaging. Furthermore, we identify a key boundary condition of this finding at the intersection of gender identity and sexual orientation. Specifically, we find that our results hold among women and gay men, but not among straight men. Our findings support calls for the inclusion of larger-bodied women in health-related advertising, provide practitioners with clear guidelines on how to portray larger-bodied women in health-related advertising, and underscore the importance of featuring diverse individuals who have historically been excluded from advertising in a way that does not negatively impact consumers' health and welfare or product purchases.

“We got it wrong. We lost relevance with the modern woman. And she told us very clearly to change our focus from how people look to how people feel.”

Martin Waters, Chief Executive Officer of
Victoria's Secret

The American standard of beauty emphasizes thinness, and consequently advertisements have traditionally, and almost exclusively, featured thin-bodied models. However, this practice is changing in response to consumer demand for more diverse and realistic representations of women in advertising. The average American woman is larger-bodied and wears clothing in the range of size 16 to 18; sizes 16 and over are considered plus-size (Christel and Dunn 2017). Consequently, the use of larger-bodied women in advertising provides a more accurate reflection of consumers than thin, waif-like women. Several firms have responded to consumers' recent calls for the inclusion of larger-bodied individuals in brand promotions. For example, Old Navy recently launched its

BodEquality campaign which emphasizes size-inclusivity in all aspects of the business and brand, including the women featured in its advertising (Thompson 2021). Aerie's *Real* campaign, which boasts that it does not airbrush images of its diverse-bodied models, increased sales by 20% in 2019 and helped the brand achieve double-digit growth for 21 straight quarters (Kohan 2020).

The inclusion of larger-bodied individuals in advertising and other promotional activities is not limited to the fashion industry; health and wellness brands have also joined the movement. For example, Blink Fitness, a gym with locations throughout the United States, launched its *#EveryBodyHappy* advertising campaign, which features fitness center members who vary in body size. The campaign emphasizes that “exercise isn't just about how it makes you look, but also how it makes you feel” (Blink Fitness 2022). Similarly, Sport England's *This Girl Can* campaign showcases women of different body sizes actively

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engaging in various sports “to inspire women to become more active” (Sports England 2021; Stampler 2015). Athletic wear companies such as Athleta and Nike offer products in a wide array of sizes, feature larger-bodied models in their advertising, and display plus-sized mannequins in their stores (Garcia 2021; Taylor 2019). Love Wellness, a wellness and personal care product brand, also utilizes larger-bodied individuals in its advertising and other promotional materials (Love Wellness 2023).

Despite the increasing use of larger-bodied women in advertising, the strategic implications of these body size-inclusive appeals are unclear. Specifically, findings from prior research that investigated the effects of larger-bodied individuals in marketing contexts are inconsistent, especially for health-related behaviors (Campbell and Mohr 2011; Huneke et al. 2015; Lin and McFerran 2016; McFerran et al. 2010a, 2010b; Otterbring and Shams 2019). Some research suggests that the presence of a larger-bodied individual may encourage consumers to adopt unhealthy consumption behaviors (Campbell and Mohr 2011; Lin and McFerran 2016; McFerran et al. 2010b), whereas other research suggests that the presence of a larger-bodied individual encourages the adoption of healthy behaviors (Huneke et al. 2015; McFerran et al. 2010a; Otterbring and Shams 2019).

When creating inclusive advertising, which we define as advertising that features individuals who have historically been excluded from mainstream advertising, including larger-bodied individuals, marketers need to respectfully appeal to diverse segments of consumers. Marketers who fail to do so are likely to harm their brands, their consumers, and the community at large (Henderson and Rank-Christman 2016; Licsandru and Cui 2018). Some prior research findings suggest that marketers should be wary of including larger-bodied individuals in their marketing materials because this strategy can elicit negative consumer responses (Campbell and Mohr 2011; Cinelli and Yang 2016; Lin and McFerran 2016). However, this suggestion conflicts with the current marketing environment in which consumers are actively supporting brands that portray diverse-bodied individuals in their advertising and avoiding brands that promote unrealistic, idealized body sizes (Bhattarai 2020; Cheng 2018). Even though many marketers are becoming increasingly body size-inclusive, as evidenced by the use of larger-bodied individuals in their promotional materials and branding activities, the theoretical and strategic implications of such initiatives are not well understood. We suggest that it is

especially important for brand managers of health-related products to understand the potential factors that may influence consumer response to advertising that includes larger-bodied individuals so unhealthy consumption behaviors are not encouraged and product purchases are not negatively influenced. Thus, the question remains: When are consumers more inclined to purchase a health-related product promoted by larger-bodied individuals? The objective of this research is to provide insight into this timely and important issue. Consequently, our findings have important implications for both brand managers and consumer health and welfare.

The literature on social comparison, body conceptualization, and dehumanization serves as the theoretical foundation of this research. Consistent with the opening quote from Victoria Secret’s Chief Executive Officer Martin Waters (Thomas 2021), we argue that shifting the focus of the marketing message away from *how the body looks* will have a significant impact on consumers’ responses to health-related product advertising that feature larger-bodied individuals. Specifically, we propose that pairing images of larger-bodied women with a marketing message that emphasizes the body’s functionality rather than the body’s appearance (Franzoi 1995) will have a positive effect on women’s purchase intentions. Further, we posit that the positive effect on purchase intentions resulting from an emphasis on the body’s functionality rather than the body’s appearance is mediated by women consumers’ perceptions of their own humanness. That is, drawing attention to how one’s body functions rather than how it looks is expected to make consumers feel more human and less objectified (Franzoi 1995). In turn, enhanced perceptions of one’s own humanness are expected to have a positive effect on intentions to purchase health-related products. In sum, there is a gap in the current literature regarding how the portrayal of a larger woman’s body in terms of its function versus its appearance in advertising influences consumers’ intentions to purchase beneficial health products. The mechanisms associated with this potential effect are not clear.

This research contributes to the marketing literature in three significant ways. First, we add to the recent literature focused on understanding how the human body’s portrayal in advertising influences consumers’ health and well-being (Lin and McFerran 2016; Weihrauch and Huang 2021). Second, we investigate the effects of dehumanization, which has traditionally been explored in intergroup settings (Haslam and Stratemeyer 2016), at the individual level. We

also extend work on the downstream consequences of dehumanization by examining its impact on consumers' intentions to purchase health-related products. Finally, we introduce body conceptualization theory (Franzoi 1995) into the marketing literature.

In sum, the current research investigates how the inclusion of larger-bodied women in health-related advertising influences consumers' purchase intentions for the advertised product. We also explore factors that influence the effectiveness of including larger-bodied women in health-related advertising, identify a key boundary condition for our findings, and develop a recommendation for how practitioners should portray larger-bodied individuals in order to appeal to consumers of all body sizes. The following studies demonstrate that when larger-bodied women are featured in advertisements for health-related products, whether the human body is conceptualized in terms of its function or its appearance influences women consumers' purchase intentions.

Conceptual Background

The current research draws from the marketing and social psychology literatures to investigate how marketing messages that accompany images of larger-bodied individuals in advertisements for health-related products impact purchase intentions. Specifically, findings from prior research studies that test theories related to social comparison, body conceptualization, and dehumanization serve as the theoretical foundation of this research. This foundation is used to develop hypotheses that are tested across eight experimental studies.

Social Comparison

Social comparison theory (Festinger 1954) suggests that consumers assimilate toward individuals they want to be like and contrast against those that they do not want to emulate. Relevant to the current research, extant findings (Campbell and Mohr 2011; Huneke et al. 2015; McFerran et al. 2010a, 2010b; Otterbring and Shams 2019) report conflicting evidence regarding whether the presence of larger-bodied individuals in health-related consumption settings leads consumers to assimilate toward or contrast away from that larger-bodied individual. On the one hand, consumers may adopt unhealthy behaviors if they assimilate toward large-bodied individuals present in a consumption situation. For example, consumers exposed to larger-bodied individuals are more likely

to eat larger quantities of food (Campbell and Mohr 2011) and make adverse health decisions (Lin and McFerran 2016). Similarly, consumers who identify as dieters eat more food in the presence of a larger-bodied waitress (McFerran et al. 2010b).

On the other hand, prior research also suggests that the presence of larger-bodied individuals creates a contrast effect as evidenced by consumers' adoption of healthy behaviors. For example, the presence of a larger-bodied woman on a restaurant menu leads consumers to make healthier food choices (Otterbring and Shams 2019) and the presence of a larger-bodied diner influences consumers to take smaller portions of food (McFerran et al. 2010a). Moreover, Huneke et al. (2015) highlight the difference between *overweight* individuals and *unhealthy* individuals and find that the presence of an overweight server does not influence unhealthy food choice, but the presence of an unhealthy-looking server does. Given that prior research provides conflicting evidence on how the presence of larger-bodied individuals in consumption settings influences consumers' health-related behaviors, marketers lack guidance regarding the types of marketing messages that should be used in advertising that feature larger-bodied women. Thus, the current research seeks to identify when advertising that features larger-bodied women is more likely to increase, rather than decrease, consumers' intentions to purchase health-related products.

Conceptualizations of the Corporeal Body

Prior research suggests that the body can either be conceptualized as an *object* (BAO) or as a *process* (BAP; Franzoi 1995). When the body is portrayed as an object, the focus is on its aesthetics and how conventionally attractive it is. However, when the body is portrayed as a process, the focus is on its functionality, specifically its muscular strength, stamina, and agility (Franzoi 1995). By definition, body functionality is not concerned with how the body looks. As such, there is not an ideal appearance (e.g., athletic, lean, toned) associated with the functionality of the body (Alleva and Tylka 2021). Historically, consumer research on the body has focused on the esthetic aspects of the body (Argo, Dahl, and Morales 2008; Argo and White 2012; Dahl, Argo, and Morales 2012; Lin and McFerran 2016; McFerran et al. 2010a, 2010b; Nichols and Raska 2020; Smeester and Mandel 2006; Vallen et al. 2019). We suggest that the historical focus on the BAO versus the BAP in consumer research is because the objectified body is subject to

considerably more public scrutiny than the functional body (Franzoi 1995).

Since many consumers hold more negative attitudes toward how their bodies look rather than how their bodies function (Franzoi 1995), focusing on the BAP (versus the BAO) fosters a positive body image (Alleva, Diedrichs, Halliwell, Martijn, et al. 2018a, 2018b; Alleva, Veldhuis, and Martijn 2016; Alleva et al. 2014, 2015). Similarly, priming individuals to think about the functionality of their body has been shown to buffer the negative effects of exposure to appearance-ideal images in the media (Alleva, Veldhuis, and Martijn 2016). Together, these findings provide insight regarding how altering marketing messaging can impact consumers' well-being. However, extant research has yet to specifically evaluate how using BAP (versus BAO) marketing messages influences consumption behavior in health-related contexts.

Women are typically the target of body-centric advertising and, compared to men, media portrayals of women focus more on their bodies than on their faces (Archer et al. 1983). This attention suggests that a woman is better represented by her body than by her face (Fredrickson and Roberts 1997). Moreover, women's bodies are "looked at, evaluated, and always potentially objectified" (Fredrickson and Roberts 1997, 177), which leads women to self-objectify and adapt an outsider's perspective of themselves (Fredrickson and Roberts 1997). One consequence of objectification is dehumanization.

Dehumanization and Body Objectification

Dehumanization occurs when individuals are either perceived to be, or are treated as, less human than others (Haslam 2006; Haslam and Stratemeyer 2016). Dehumanization can be broken into two categories: animalistic dehumanization and mechanistic dehumanization. Animalistic dehumanization occurs when uniquely human traits, such as high-level cognition, are denied to individuals, whereas mechanistic dehumanization occurs when individuals are deprived of human nature traits, such as emotions, and are likened to objects and machines (Haslam 2006). Previous consumer research has studied the consequences of attributing uniquely human traits to products and brands through anthropomorphization (Aggarwal and McGill 2012; Epley 2018) and denying humans of human nature traits by conceptualizing them as machines (Castelo, Schmitt, and Savary 2019; Weihrauch and Huang 2021). However, consumer

research has yet to investigate the effects of making consumers feel *more* human.

When women are objectified, the focus is on their aesthetic appearance and not the functionality of their body or their humanness. Haslam (2006) argues that human nature traits are innate to humanity. As such, individuals who are denied human nature traits "should be represented in ways that emphasize relatively superficial attributes" (Haslam 2006; pg. 258), which includes how they look. Extant research (Heflick and Goldenberg 2009; Nussbaum 1999) provides evidence that individuals perceive objectified women to be less human due to a lack of human nature traits. These findings shine light on how objectified women are viewed by others, but do not provide insight on how portrayals of the body in advertising can make women self-objectify and, as a result, feel less human. When women self-objectify, they consider themselves to be an object first and a human being second (Arroyo, Segrin, and Harwood 2014). Furthermore, self-objectification takes focus away from women consumers' internal states and capabilities, which has negative implications for their mental health (Moradi and Huang 2008).

Based on these prior research findings, we propose that women consumers exposed to an advertisement that features a larger-bodied woman paired with a BAO marketing message, which emphasizes how the body looks, will perceive themselves to possess fewer human-nature traits and consequently to be less human and more objectified. Women consumers exposed to an advertisement that features a larger-bodied woman accompanied by a BAP marketing message, on the other hand, will perceive themselves to possess more human-nature traits and consequently to be more human and less objectified. In the current research, we use human-nature traits as a proxy for consumers' own perceived humanness, which represents the extent to which consumers feel more human (versus more object-like). Stated formally:

Hypothesis 1: Using body as a process (versus body as an object) marketing messages with a larger-bodied woman in health-related advertising increases women consumers' perceptions of their own humanness.

Most dehumanization research has focused on intergroup dehumanization (Haslam and Stratemeyer 2016). However, both humanization and dehumanization processes can occur at the individual level. Consumers can self-humanize by assigning more human nature traits, such as warmth and agency, to themselves than to others (Haslam et al. 2005; Haslam and Bain 2007). Conversely, in some situations,

consumers self-dehumanize (Bastian, Jetten, and Radke 2012; Bastian et al. 2013), which can lead to harmful behaviors (Haslam and Loughnan 2016). That is, self-dehumanization is often associated with self-destructive behaviors. This dehumanization is predicted to increase potentially harmful behaviors, which we operationalize as lower intentions to purchase the advertised health-related product. Conversely, an advertisement that presents a larger-bodied woman with a BAP marketing message should increase consumers' perceptions of their own humanness (versus feelings of dehumanization) and, in turn, increase healthful behaviors. That is, increased feelings of humanness are expected to increase intentions to purchase products with positive health implications.

Hypothesis 2a: A marketing message that emphasizes the BAP (versus BAO) has a positive (negative) effect on women consumers' intentions to purchase the advertised health-related product.

Hypothesis 2b: Increased perceptions of one's own humanness mediates the effects of the BAP versus BAO message on women consumers' intentions to purchase the advertised health-related product. Specifically, the BAP (BAO) message has a positive (negative) effect on purchase intentions through its effect on perceptions of one's own humanness.

Fredrickson and Roberts (1997) suggest that many women self-objectify and view themselves from an outsider's perspective, leading them to be more concerned with their appearance. Extant research suggests that a subset of men—gay men—do the same. Gay men are more likely than straight men to self-objectify (Martins, Tiggemann, and Kirkbride 2007; Michaels, Parent, and Moradi 2013). Additionally, while straight men are less likely to care about their appearance compared to women, gay men are similar to women in their concern for their appearance (Siever 1994). Further, compared to straight men, gay men are more likely to engage in appearance-related conversations (Jankowski, Diedrichs, and Halliwell 2014) and consider physical appearance to be important to their sense of self (Silberstein et al. 1989). Given that previous research suggests that gay men are more concerned about their physical appearance than straight men (Siever 1994), we expect that gay men exposed to advertisements that pair a larger-bodied individual with BAO (versus BAP) marketing messages to self-objectify and thus perceive themselves to be less human. However, we do not expect this effect to occur among straight men, who tend to be less concerned about their physical appearance (Siever 1994). Stated formally:

Hypothesis 3: The intersection of gender identity and sexual orientation moderates the mediating effects of consumers' own perceived humanness. The positive influence of BAP messaging on purchase intentions through perceptions of one's own humanness are attenuated when consumers identify as straight men but hold among women and gay men.

Eight experimental studies test the hypotheses and demonstrate that pairing images of larger-bodied women with BAP (versus BAO) marketing messages in health-related advertising increases women consumers' own perceived humanness and purchase intentions for the advertised health-related product. Study 1 investigates how the interaction of the gender of the larger-bodied model, messaging type, and gender of the participant influences purchase intentions. The results reveal that featuring a larger-bodied woman model with BAP messaging (versus BAO) messaging increases women consumers' purchase intentions for the advertised health-related product, but this finding does not hold among men consumers or when a larger-bodied man model is portrayed. The results of study 2a pretest 1 demonstrate that the body size of the woman featured in an advertisement has no impact on women consumers' perceptions of their own humanness. Study 2a pretest 2 shows that when a marketing message that emphasizes the BAP rather than the BAO is presented, women consumers feel more human and less objectified. That is, women consumers' perceptions of their own humanness increase. In study 2a, we examine how pairing an image of a larger-bodied individual with either a BAP or BAO message influences women's perceptions of their own humanness and purchase intentions for the advertised health-related product. We find that when an image of a larger-bodied woman is paired with BAP messaging, women consumers feel more human, which in turn increases their intentions to purchase the advertised health-related product. In study 2b, we demonstrate that the findings of study 2a do not replicate in a sample of men. Study 3 generalizes the findings of study 2a using a women-only sample and a second health-related product. Next, study 4 generalizes the findings of studies 2a and 3 using a women-only sample, a third health-related product, and a behavioral dependent variable. In study 5, we identify a key boundary condition for these effects. Specifically, we find that the pattern of results from the prior studies hold among both women and gay men, but not among straight men. Figure 1 depicts our full conceptual model and Table 1 summarizes the main finding of each of these studies.

Study 1: The Influence of Gender of the Model, Messaging Type, and Gender of the Participant on Consumers' Purchase Intentions for the Advertised Health-Related Product

Study 1 was designed to understand how the gender of the model featured in the advertisement, messaging type, and gender of the participant influence consumers' purchase intentions for the advertised health-related product.

Participants and Procedures

Study 1 employed a 2 (gender of the model: man versus woman) \times 2 (messaging type: BAO versus BAP) \times 2 (gender of the participant: man versus woman) design. We recruited 500 participants (49.9% men; $M_{age} = 39.59$, $SD = 14.02$) from Prolific Academic to participate in this online study. Participants were randomly assigned to one of the four advertising conditions (see [Supplemental Online Appendix A](#) for full stimuli). This study and all subsequent studies were designed on Qualtrics, an online survey software. This software package randomly assigns participants to conditions to ensure that cell sizes are approximately equal.

After viewing the advertisement, participants filled out measures of purchase intentions ($\alpha = .88$) and perceived effectiveness of the product ($\alpha = .96$; see [Supplemental Online Appendix A](#) for the full set of measures). Additionally, participants completed Tylka and Wood-Barcalow (2015) body appreciation scale which measures individuals' feelings toward their bodies, particularly their "acceptance of, favorable opinions toward, and respect for their bodies" (Tylka and Wood-Barcalow 2015, pg. 53). The measure has been found to be positively related to body esteem (Avalos, Tylka, and Wood-Barcalow 2005) and

negatively related to body dissatisfaction (Avalos, Tylka, and Wood-Barcalow 2005). We chose to focus on body appreciation rather than on other constructs such as self-esteem, because of its emphasis on valuing and protecting the body (Tylka and Wood-Barcalow 2015). Note that although this measure was collected in each of the studies, results consistently show that body appreciation was not influenced by the experimental manipulations nor did it moderate any outcome effects. Additionally, controlling for body appreciation does not significantly impact our results. As such, we do not discuss this construct in subsequent studies. At the end of the survey, participants provided their demographic information, including their height and weight, which we used to calculate participants' body mass index (BMI). Controlling for BMI in this study did not significantly influence our results.

Results

Purchase Intentions

The results of a $2 \times 2 \times 2$ analysis of variance (ANOVA) reveal a significant main effect of messaging type on purchase intentions ($F(1, 493) = 4.08$, $p = .04$) and a marginally significant effect of gender of the participant on purchase intentions ($F(1, 493) = 3.44$, $p = .064$). The main effect of the gender of the model on purchase intentions was not significant ($F(1, 493) = 0.25$, $p = .62$). However, the three-way interaction among the gender of the model, the messaging type, and the gender of the participant was significant ($F(1, 493) = 16.36$, $p = .01$).

Post hoc analyses reveal that there was only a significant difference in purchase intentions between the larger-bodied woman model \times BAO \times woman participant ($M = 3.42$, $SD = 1.60$) and the larger-bodied woman model \times BAP \times woman participant ($M = 4.36$,

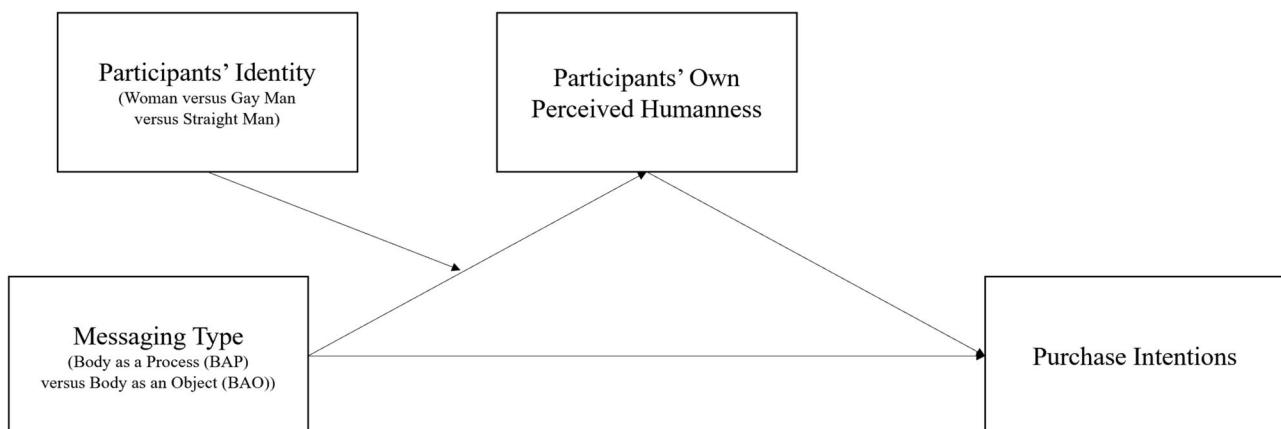


Figure 1. Conceptual model.

Table 1. Overview of studies.

Study	Study Type	Sample	Gender of Participants	Target Product	Dependent Variable	Findings	Hypotheses Supported
1	Online experiment	Prolific Academic (<i>n</i> = 500)	Men and women (balanced sample)	Multivitamin dietary supplement	Purchase intentions	Using an image of a larger-bodied woman with BAP (versus BAO) marketing messages increases women consumers' purchase intentions for the advertised product but does not significantly influence men consumers' purchase intentions. Additionally, using an image of a larger-bodied man with either of the messaging types does not significantly influence consumers' purchase intentions for the product, regardless of the consumers' gender.	2a
2a Pretest 1	Online experiment	Prolific Academic (<i>n</i> = 189)	Women	Gym	Perceived humanness	The body type (larger-bodied versus thin-bodied) of the woman featured does not influence women consumers' own perceived humanness.	—
2a Pretest 2	Online experiment	Prolific Academic (<i>n</i> = 202)	Women	Gym	Perceived humanness	The messaging type (BAO versus BAP) influences women consumers' own perceived humanness.	—
2a	Online experiment	Prolific Academic (<i>n</i> = 130)	Women	Gym	Perceived humanness; purchase intentions	Using BAP messaging alongside images of a larger-bodied woman increases women consumers' own perceived humanness and purchase intentions for the advertised health-related product. Participants' own perceived humanness mediates the relationship between messaging type and purchase intentions.	1 2a 2b
2b	Online experiment	Prolific Academic (<i>n</i> = 150)	Men	Gym	Perceived humanness; purchase intentions	Using BAP (versus BAO) messaging alongside images of larger-bodied men does not influence men consumers' own perceived humanness or purchase intentions.	None
3	Online experiment	Prolific Academic (<i>n</i> = 200)	Women	Fitness tracker	Perceived humanness; purchase intentions	The findings of study 2a generalize to a different target health-related product.	1 2b
4	Online experiment	Prolific Academic (<i>n</i> = 160)	Women	Multivitamin dietary supplement	Perceived humanness; purchase intentions; raffle entry	The findings of study 2a and 3 generalize to a different target health-related product. When given the chance to enter a raffle for the target product, participants exposed to the larger-bodied individual paired with BAP (versus BAO) messaging are more likely to enter the raffle.	1 2a 2b
5	Online experiment	Prolific Academic (<i>n</i> = 300)	Women, straight men, and gay men (balanced sample)	Gym	Purchase intentions	The previously observed findings hold among women and gay men but not straight men.	3

Note. BAO = body as an object; BAP = body as a process.

$SD = 1.53$, $p = .03$) conditions. Women participants exposed to the larger-bodied woman with the BAP (versus BAO) messaging reported higher intentions to purchase the advertised health-related product. Interestingly, using a larger-bodied women model with either of the messaging types did not significantly impact purchase intentions among men. Furthermore, using a larger-bodied man model with the different messaging types did not significantly impact purchase intentions among both men and women participants.

Perceived Effectiveness of the Health-Related Product

We conducted another $2 \times 2 \times 2$ ANOVA to examine whether participants' perceived effectiveness of the health-related product varied as a function of the gender of the model, messaging type, and gender of the participants. The results reveal a significant main effect of messaging type ($F(1, 493) = 8.40, p = .004$) and a marginally significant three-way interaction of the gender of the model, the messaging type, and the gender of the participant ($F(1, 493) = 3.12, p = .078$).

Post hoc analyses reveal that there was only a significant difference between the larger-bodied woman model \times BAO \times woman participant ($M = 4.07, SD = 1.38$) and the larger-bodied woman model \times BAP \times woman participant ($M = 4.85, SD = 1.38, p = .05$) conditions. Women participants who saw a larger-bodied woman model alongside BAP (versus BAO) messaging perceived the product to be more effective; however, using a larger-bodied women model with either of the messaging types did not significantly influence men participants' perceived effectiveness of the health-related product. Additionally, portraying a larger-bodied man model with the different messaging types did not significantly impact participants' perceived effectiveness of the health-related product regardless of the gender of the participant.

Discussion

Study 1 provides initial evidence that pairing images of larger-bodied women with different types of marketing messages influences women participants' purchase intentions for the advertised health-related product. Particularly, we find that using BAP messaging (versus BAO messaging) alongside an image of larger-bodied woman model increases women consumers' purchase intentions for the advertised health-related product, providing initial evidence for hypothesis 2a. However, we do not find evidence that

pairing images of larger-bodied women with different messaging types influences men participants' purchase intentions for the advertised health-related product. The results also suggest that using a larger-bodied man model does not influence men or women consumers' purchase intentions for the advertised health-related product. Given these results, we focus our subsequent studies on how women consumers respond to images of larger-bodied women models paired with either BAP or BAO marketing messages in health-related advertising (see study 2b and 5 for exceptions).

In addition, study 1 suggests that women consumers perceive health-related products advertised with a larger-bodied woman model and BAP (versus BAO) marketing messaging to be more effective. We did not find any significant differences for any of the other gender of the model, messaging type, and gender of the participant combinations. While this finding has interesting implications for practitioners, it is outside the scope of the current paper and should be further investigated in future research.

Study 2a Pretest 1: The Influence of Body Size on Consumers' Own Perceived Humanness

Study 2a pretest 1 was designed to test whether the presence of a larger-bodied (versus a thin-bodied) woman in health-related advertising influences consumers' own perceived humanness (i.e., humanness perceptions). Given that hypothesis 1 states that messaging type influences perceived humanness, we did not expect consumers' own perceived humanness to differ after exposure to an advertisement that features either a larger- or thin-bodied individual. Additionally, we included a control condition that did not have an individual featured to determine whether including an individual of any body size impacts consumers' own perceived humanness.

Participants and Procedures

We recruited 189 women participants ($M_{age} = 30.76, SD = 11.89$) from Prolific Academic to participate in this online study. Participants were randomly assigned to either the larger-bodied, thin-bodied, or control condition. In the larger-bodied condition, participants saw an advertisement for a fictitious gym that featured an image of a larger-bodied individual. In the thin-bodied condition, participants saw a visually identical advertisement for the same fictitious gym, but the image of the larger-bodied individual was professionally edited to make the model thin. Participants in the control

condition saw an advertisement for the same fictitious gym that replaced the image of the person with an image of gym equipment. The images used in the larger- and thin-bodied conditions were pretested to ensure that participants perceived the larger-bodied individual to be larger-bodied and the thin-bodied individual to be thin-bodied (see *Supplemental Online Appendix B* for full pretest information). The messaging in the three advertising conditions was identical and provided participants with standard information about the gym's offerings (see *Supplemental Online Appendix C* for full stimuli).

After viewing the advertisement, participants filled out the human nature subscale of the dehumanization scale (Haslam 2006; $\alpha = .77$; see *Supplemental Online Appendix D* for items), which served as a proxy for the participants' own perceived humanness. The human nature subscale (Haslam 2006) is a robust measure that has previously been used to study how a variety of experiences, such as social ostracization (Bastian et al. 2013; Bastian and Haslam 2010) and interpersonal harm (Vaes, Bastian et al. 2021), can make individuals feel more or less human. Finally, participants reported their demographic information.

Results

Participants' Own Perceived Humanness

The three items of the human nature subscale (Haslam 2006) of the dehumanization scale that represent more object- and machine-like perceptions were reverse coded to create a measure of *participants' own perceived humanness*. A one-way ANOVA demonstrates a significant effect of body size (larger-bodied versus thin-bodied versus control) on participants' own perceived humanness as the dependent variable was significant ($F(2, 186) = 11.14, p < .001$). Post hoc analysis revealed that participants in the control condition ($M_{Control} = 4.21, SD = 1.25$) perceived themselves to be less human, that is, more object- or machine-like, than those in the larger-bodied ($M_{Larger} = 5.07, SD = 0.96; p < .001$) and thin-bodied ($M_{Thin} = 4.86, SD = 0.95; p = .002$) conditions. Most importantly, participants' own perceived humanness did not significantly differ between the larger- and thin-bodied conditions ($p = .52$). See *Figure 2* for results.

Discussion

Study 2a pretest 1 investigated whether featuring a larger- or thin-bodied individual in advertising influences participants' own perceived humanness after

exposure to the advertisement. The findings suggest that while the presence of both larger- and thin-bodied individuals in the advertisement increased participants' own perceived humanness compared to the control condition, participants' own perceived humanness did not differ between the two body size conditions. As predicted in hypothesis 1, we expect that the messaging type (BAO versus BAP) and not the body size of the individual featured will influence participants' own perceived humanness. The results support the notion that body size does not influence participants' own perceived humanness. As previously mentioned, in response to consumer demands for more inclusive advertising, many health-related brands are featuring larger-bodied individuals in their advertising despite inconclusive evidence on how including larger-bodied individuals in advertising influences consumers. Additionally, recent research highlights the consumer subversion of idealized bodies in advertising (Middleton et al. 2022). As such, the question is no longer *whether* marketers should portray larger-bodied individuals in advertisements but *how* larger-bodied individuals should be portrayed in advertising. Thus, all subsequent studies will focus on how the messaging type that accompanies images of larger-bodied individuals influences participants' own perceived humanness and intentions to purchase the advertised health-related product.

Study 2a Pretest 2: The Influence of Messaging Type on Consumers' Own Perceived Humanness

Study 2a pretest 2 was designed to test whether shifting the focus of a health-related advertisement's marketing message from how the body looks (BAO) to how the body functions (BAP) influences participants' own perceived humanness.

Participants and Procedures

Two hundred two women participants ($M_{age} = 27.18, SD = 9.75$) were recruited from Prolific Academic to participate in this online study. Participants were randomly assigned to either the BAO messaging or BAP messaging condition. Participants in both conditions saw visually identical advertisements for a new fictitious gym without any individual featured. In the BAO messaging condition, the marketing message focused on how working out at the gym would help the consumer's body look its best, while the marketing message in the BAP messaging condition was changed

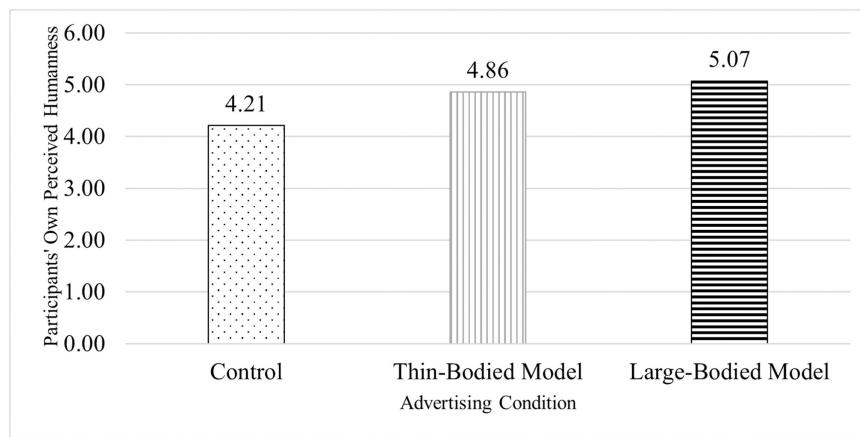


Figure 2. Study 2a pretest 1 results.

to emphasize how working out at the gym would help the consumer's body function at its best (see *Supplemental Online Appendix E* for full stimuli). After viewing the advertisement, participants completed an adapted version of the Body Surveillance Scale (McKinley and Hyde 1996; see *Supplemental Online Appendix D* for items), which served as the manipulation check, and then completed the same measure of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .85$) that was used in study 2a pretest 1. Finally, participants reported their demographic information.

Results

Manipulation Check

Two participants failed the attention check (see *Supplemental Online Appendix A* for additional details regarding the attention check) and were removed from the analysis, leaving a final sample of 200 participants. The adapted version of the Body Surveillance Scale (McKinley and Hyde 1996) measured participants' perceptions of how appearance- or function-focused the advertisement was on a 1 (strongly disagree) to 7 (strongly agree) scale. The manipulation check revealed that the manipulation was successful. Participants perceived the BAO advertisement to be more appearance-focused than the BAP advertisement ($M_{BAO} = 4.83$, $SD = 0.97$ versus $M_{BAP} = 3.19$, $SD = 1.20$; $F(1, 198) = 112.59$, $p < .001$). Similarly, the BAP advertisement was perceived to be more function-focused than the BAO advertisement ($M_{BAP} = 5.75$, $SD = 0.85$ versus $M_{BAO} = 3.05$, $SD = 1.68$; $F(1, 198) = 205.44$, $p < .001$).

Participants' Own Perceived Humanness

Next, the results of an independent-samples t -test with messaging type (BAO versus BAP) as the

independent variable and participants' own perceived humanness as the dependent variable revealed a significant effect ($t(198) = -6.69$, $p < .001$). Participants who viewed the BAP messaging advertisement ($M_{BAP} = 4.13$; $SD = 1.32$) perceived themselves to be more human (versus object- or machine-like) than those who saw the BAO messaging advertisement ($M_{BAO} = 2.90$; $SD = 1.29$). See *Figure 3* for results.

Discussion

The results of study 2a pretest 2 suggest that by changing the marketing message from a BAO emphasis to a BAP emphasis, marketers can increase participants' own perceived humanness. Given this preliminary finding, we conducted study 2a to see how this increased perception of humanness influences consumers' purchase intentions for the advertised health-related product. We propose that pairing images of larger-bodied women with BAP (versus BAO) messaging will increase women consumers' own perceived humanness, which in turn will increase their purchase intentions for the advertised health-related product. That is, perceived humanness is expected to mediate the effect of message type on purchase intentions.

Study 2a: The Influence of Message Type on Women's Gym Membership Purchase Intentions

Study 2a tested whether the marketing message that accompanies images of larger-bodied women in health-related advertising influences women consumers' purchase intentions for the advertised health-related product. As predicted in hypothesis 2a, presenting an image of a larger-bodied woman with BAP (versus

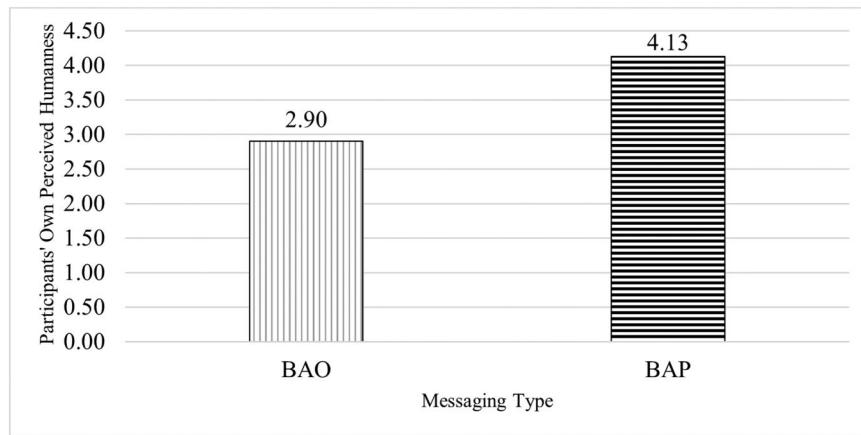


Figure 3. Study 2a pretest 2 results.

BAO) messaging is expected to increase purchase intentions for the advertised health-related product.

Participants and Procedures

We recruited 130 women participants ($M_{\text{age}} = 34.63$, $SD = 12.09$) from Prolific Academic to participate in this online study. Participants were randomly assigned to one of the two conditions: BAP messaging versus BAO messaging. As in the previous studies, participants saw an advertisement for a new fictitious gym. However, in this study, the marketing message was paired with an image of a larger-bodied woman (see *Supplemental Online Appendix F* for full stimuli). After viewing the advertisement, participants completed the same measure of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .78$) that was used in the pretests. In addition, participants indicated how likely they were to sign up for a gym membership at the advertised gym using Jiang et al.'s (2010) purchase intention scale ($\alpha = .96$). Finally, participants provided their demographic information, including their height and weight, which we used to calculate participants' BMI. Note that BMI did not differ among groups or influence results when included as a covariate.

Results

Participants' Own Perceived Humanness and Purchase Intentions

The results of an independent-sample t -test revealed that, as predicted in hypothesis 1, participants' own perceived humanness was higher in the BAP messaging condition ($M_{\text{BAP}} = 5.31$; $SD = 0.95$) than in the BAO messaging condition ($M_{\text{BAO}} = 4.83$, $SD = 1.19$;

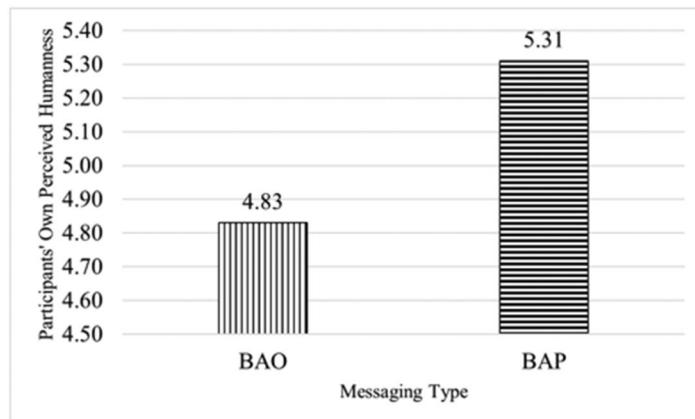
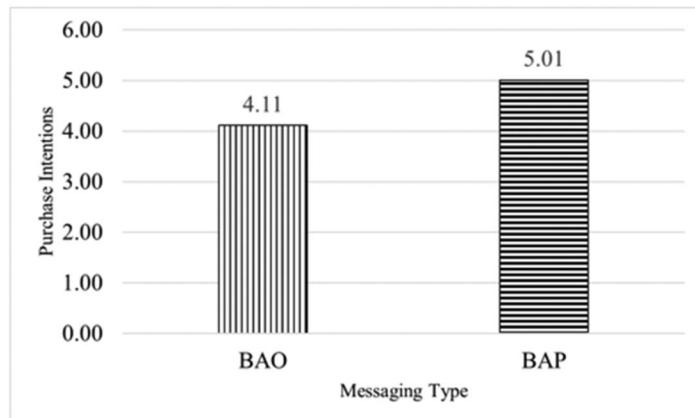
$t(128) = -2.51$, $p < .001$). See *Figure 4* Panel A for results. Most importantly, the results of an additional independent-samples t -test revealed that, as predicted by hypothesis 2a, participants in the BAP messaging condition reported higher intentions to purchase the target gym membership ($M_{\text{BAP}} = 5.01$, $SD = 2.20$) than those in the BAO messaging condition ($M_{\text{BAO}} = 4.11$, $SD = 2.33$; $t(128) = -2.27$, $p = .03$). See *Figure 4* Panel B for results.

Mediation Analysis

Hypothesis 2b predicted that participants' perceptions of their own humanness would mediate the positive effect of the BAP messaging on intentions to purchase the advertised health-related product. We ran a mediation analysis using PROCESS Model 4 (Hayes 2017) to test this hypothesis. The results suggest that the effect of messaging type on purchase intentions occurs through participants' own perceived humanness (indirect effect = 0.31, 95% CI [0.07, 0.56]), providing support for hypothesis 2b.

Discussion

The results of study 2a provide support for hypothesis 1 and suggest that shifting the marketing message from a BAO focus to a BAP focus increases women participants' own perceived humanness when a larger-bodied woman is featured in the health-related advertisement. Study 2a also finds that pairing images of a larger-bodied woman with a BAP (versus BAO) messaging in health-related advertising increases women consumers' purchase intentions for the advertised health-related product, providing support for hypothesis 2a. Furthermore, we find that consumers' own perceived humanness mediates the relationship

Panel A: The Influence of Messaging Type on Participants' Own Perceived Humanness**Panel B: The Influence of Messaging Type on Purchase Intentions****Figure 4.** Study 2a results.

between messaging type and purchase intentions, in support of hypothesis 2b.

Study 2b: The Influence of Messaging Type on Men's Gym Membership Purchase Intentions

Study 2b was designed to test whether the findings of study 2a hold among men.

Participants and Procedures

One hundred fifty men ($M_{age} = 35.07$, $SD = 11.85$) were recruited from Prolific Academic to participate in this online study. Like study 2a, study 2b had two conditions: BAP messaging versus BAO messaging. Participants were randomly assigned to one of the two conditions. In this study, participants saw an advertisement for a fictitious gym that featured a larger-bodied man. Between the two conditions, the marketing message was manipulated to either be BAP- or BAO-

oriented (see [Supplemental Online Appendix G](#) for full stimuli). After viewing the advertisement, participants completed the same measures of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .80$) and purchase intentions (Jiang et al. 2010; $\alpha = .96$) scales from the previous studies. Next, participants provided their demographic information, including their height and weight, which was used to calculate participants' BMI. Note that controlling for BMI again did not significantly impact our results.

Results

Participants' Own Perceived Humanness and Purchase Intentions

Hypothesis 1 predicted that participants exposed to the BAP messaging condition would report higher own perceived humanness than those in the BAO messaging condition. However, the results of an

independent-samples *t*-test reveal that among men, there is no significant difference in participants' own perceived humanness between the BAP messaging ($M_{BAP} = 4.48$, $SD = 1.02$) and BAO messaging ($M_{BAO} = 4.58$, $SD = 1.37$) conditions ($t(148) = 0.47$, $p = .64$). Additionally, hypothesis 2a predicted that participants in the BAP messaging condition would report higher intentions of purchasing a gym membership from the advertised gym. The results of an independent-samples *t* test suggest that this effect does not hold among men. The reported purchase intentions among participants in the BAP messaging condition ($M_{BAP} = 2.93$, $SD = 2.09$) did not significantly differ from participants in the BAO messaging condition ($M_{BAO} = 3.30$, $SD = 2.27$; $t(148) = 1.03$, $p = .31$). See Figure 5 for results.

Mediation Analysis

To test hypothesis 2b and explore whether perceived humanness increases purchase intentions for the advertised health-related product among men, we ran a mediation analysis using PROCESS Model 4 (Hayes 2017). The results revealed that perceived humanness did not mediate the effect of messaging type on purchase intentions (indirect effect = -0.04 , 95% CI $[-0.23, 0.14]$).

Discussion

The results of study 2b suggest that the effect of pairing images of larger-bodied individuals with BAP messaging (versus BAO messaging) only hold among women. Men did not report significantly different perceptions of perceived humanness or purchase intentions after exposure to advertisements featuring a larger-bodied man paired with BAP (versus BAO) messaging. Moreover, perceived humanness did not mediate the relationship between messaging type and purchase intentions. These findings are consistent with previous research, which suggests that women are more likely than men to adapt an outsider's perspective of themselves and self-objectify (Fredrickson and Roberts 1997). Thus, the remainder of our studies focus on how women consumers respond to health-related advertisements that feature larger-bodied individuals and utilize BAP (versus BAO) marketing messages (with the exception of study 5).

Study 3: The Influence of Messaging Type on Fitness Tracker Purchase Intentions

Study 3 was designed to generalize the findings of study 2a to an additional health-related product. As in

study 2a, we only recruited women to participate in this study.

Participants and Procedures

Two hundred women participants ($M_{age} = 37.30$, $SD = 14.82$) were recruited from Prolific Academic to participate in this online study. Study 3 had two conditions: BAP messaging versus BAO messaging. Participants were randomly assigned to one of the two conditions. In this study, participants saw an advertisement for a fictitious fitness tracker that featured a larger-bodied woman; however, the marketing message was manipulated between conditions to either focus on the BAP or the BAO (see Supplemental Online Appendix H for full stimuli). After viewing the advertisement, participants filled out the same measures of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .82$), and purchase intentions (Jiang et al. 2010; $\alpha = .96$) used in the previous studies. Finally, participants provided their demographic information, including their height and weight, which was used to calculate participants' BMI. Note that as in previous studies, BMI did not differ between groups or influence results when included as a covariate.

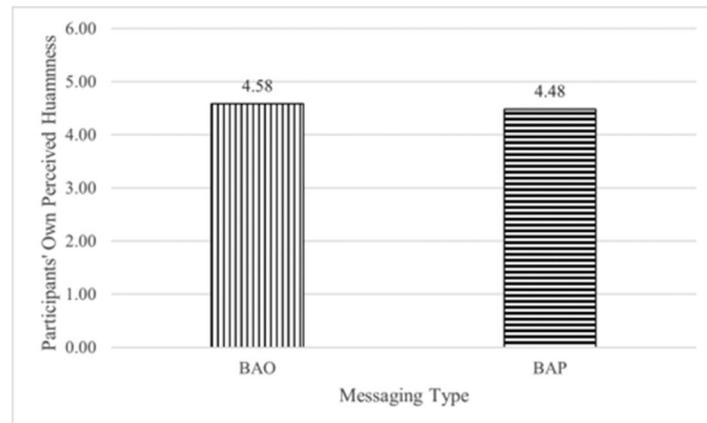
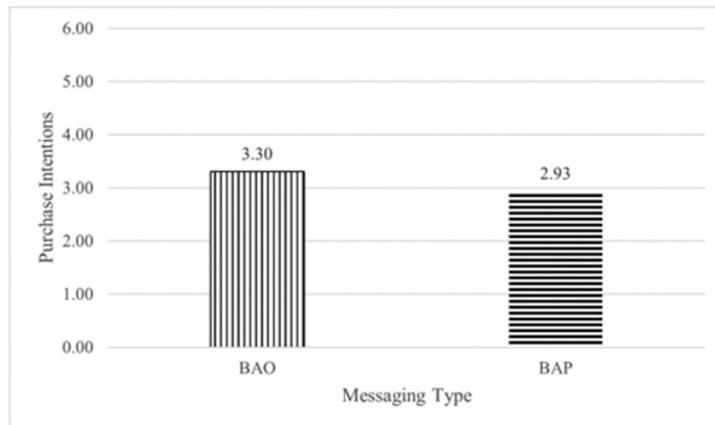
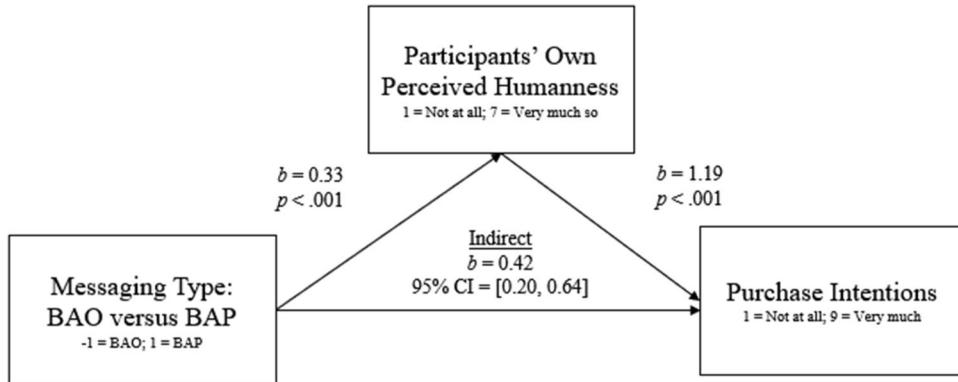
Results

Mediation Analysis

We conducted a mediation analysis using PROCESS Model 4 (Hayes 2017). The results revealed that participants' own perceived humanness mediated the effect of messaging type on purchase intentions (indirect effect = 0.42 , 95% CI $[0.20, 0.64]$). Specifically, pairing an image of a larger-bodied woman with BAP (versus BAO) messaging increased participants' own perceived humanness ($b = 0.33$, $SE = 0.09$, $t(198) = 3.75$, $p < .001$), in support of hypothesis 1. The results of the mediation analysis also support hypothesis 2b and suggest that perceived humanness mediates the effect of message type on consumers' intentions to purchase for the advertised fitness tracker ($b = 1.19$, $SE = 0.11$; $t(197) = 11.68$, $p < .001$). See Figure 6 for results.

Discussion

Study 3 generalizes the findings of study 2a to another health-related product. The results suggest that pairing images of larger-bodied women

Panel A: The Influence of Messaging Type on Men's Own Perceived Humanness**Panel B: The Influence of Messaging Type on Purchase Intentions****Figure 5.** Study 2b results.**Figure 6.** Study 3 results.

with BAP (versus BAO) marketing messages in health-related advertising increases women consumers' own perceived humanness, which in turn increases their purchase intentions for the advertised health-related product. Study 4 was conducted to test whether our findings generalize to a non-fitness health-related product.

Study 4: The Influence of Messaging Type on Multivitamin Dietary Supplement Purchase and Interest in the Product

In study 4, we used a multivitamin dietary supplement as our target health-related product. Additionally, in this study, participants were given the opportunity to enter a raffle for the advertised multivitamin dietary

supplements, which we used as a behavioral measure of consumers' interest in the advertised health-related product.

Participants and Procedures

One hundred sixty women ($M_{\text{age}} = 36.89$, $SD = 13.85$) were recruited from Prolific Academic to participate in this online study. Like previous studies, study 4 had two conditions: BAP messaging versus BAO messaging. Participants were randomly assigned to one of the two conditions. In this study, participants saw an advertisement for a fictitious multivitamin dietary supplement that featured a larger-bodied woman; however, between the two conditions, the marketing message was manipulated to either be BAP- or BAO-oriented (see [Supplemental Online Appendix I](#) for full stimuli). After viewing the advertisement, participants completed the same measures of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .80$), and purchase intentions (Jiang et al. 2010; $\alpha = .97$) from the previous studies. Next, participants provided their demographic information, including their height and weight, which we used to calculate participants' BMI. As in all previous studies, controlling for BMI did not significantly influence our results.

At the end of the study, participants were told that to thank them for participating in the study, the researchers were raffling off a bottle of the multivitamin dietary supplements that were featured in the advertisement they saw earlier. Participants were then asked whether they would like to be entered into the raffle, which we used as a proxy for consumers' interest in the advertised product in this study. Since we used a fictitious product and brand in our stimuli, participants who chose to enter the raffle were entered into a raffle for a \$10 Prolific bonus, which is equivalent to the price of multivitamin dietary supplements currently available on the market.

Results

Participants' Own Perceived Humanness and Purchase Intentions

Four participants failed either the attention check (see [Supplemental Online Appendix A](#) for additional details regarding the attention check) or the human verification questions and were excluded from our analyses, leaving a final sample of 156 participants. As in previous studies and as predicted in hypothesis 1, the results of an independent-samples t -test revealed

that participants reported higher own perceived humanness in the BAP messaging condition ($M_{\text{BAP}} = 4.81$; $SD = 1.03$) than in the BAO messaging condition ($M_{\text{BAO}} = 4.28$, $SD = 1.35$; $t(154) = -2.76$, $p = .006$). See [Figure 7](#) Panel A for results. Most importantly, as predicted by hypothesis 2a, the results of an independent-samples t -test suggested that participants in the BAP messaging condition reported higher intentions to purchase a bottle of the advertised multivitamin dietary supplements ($M_{\text{BAP}} = 3.44$, $SD = 2.06$) than those in the BAO messaging condition did ($M_{\text{BAO}} = 2.69$, $SD = 2.06$; $t(154) = -2.27$, $p = .03$). See [Figure 7](#) Panel B for results.

Purchase Intentions Mediation Analysis

PROCESS Model 4 (Hayes 2017) was run to test whether participants' own perceived humanness mediated the effect of message type on consumers' purchase intentions for the advertised health-related product. The results revealed that the effect of message type on purchase intentions was mediated by participants' own perceived humanness (indirect effect = 0.27, 95% CI [0.08, 0.47]), which supports hypothesis 2b.

Raffle Entry Mediation Analysis

We conducted an additional mediation analysis using PROCESS Model 4 (Hayes 2017) to investigate whether the effect of messaging type on the likelihood that participants opt to enter the raffle is mediated by participants' own perceived humanness. The indirect effect was significant (indirect effect = 0.21, 95% CI [0.05, 0.43]). The results suggest that pairing an image of a larger-bodied individual with BAP messaging increased participants' own perceived humanness ($b = 0.27$, $SE = 0.10$; $t(154) = 2.76$, $p = .001$) which increased the likelihood that participants entered the raffle for the advertised multivitamin dietary supplements ($b = 0.79$, $SE = 0.18$, $z = 4.41$, $p < .001$), in support of hypothesis 2b.

Discussion

Study 4 extends the findings of studies 2a and 3 to a different health-related product that is unrelated to fitness. Additionally, study 4 included an opportunity for participants to enter a raffle to win the advertised multivitamin dietary supplements, which we used as a proxy for consumers' interest in the advertised product. Using this behavioral dependent variable, we find that exposure to BAP messaging increases women consumers' perceived humanness, which in turn

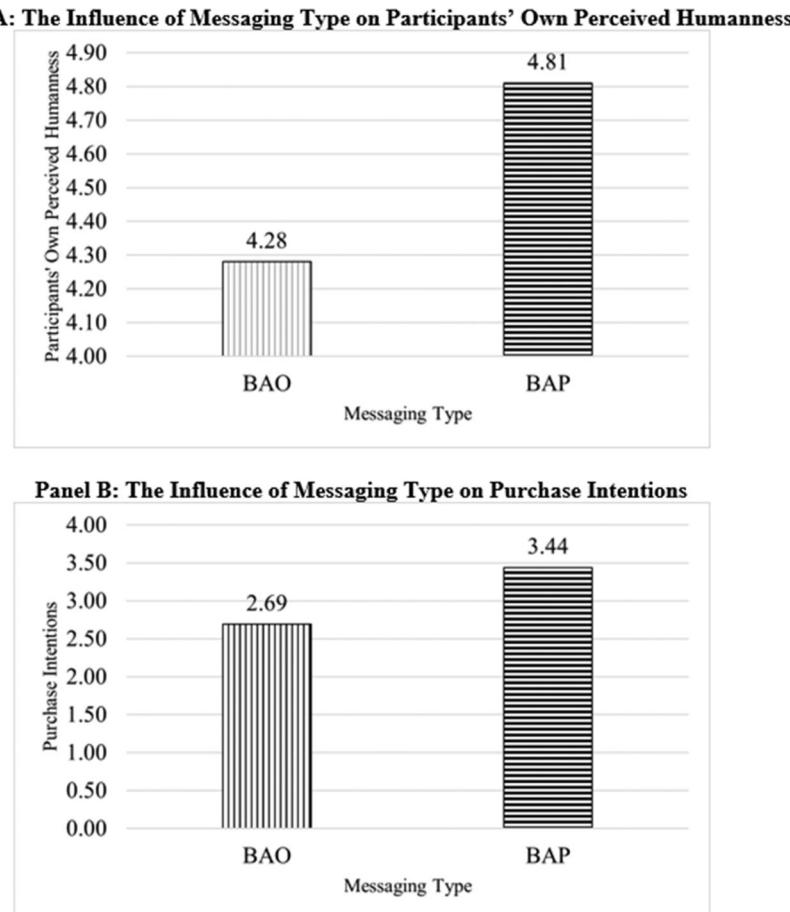


Figure 7. Study 4 results.

makes them more likely to enter the raffle for the advertised product. Overall, study 4 provides additional evidence for our hypotheses.

Study 5: The Role of Participants' Identity on the Effect of Perceived Humanness and Purchase Intentions

Study 5 was designed to test hypothesis 3 and explore how the intersection of participants' gender and sexual orientation influence our previously observed effects.

Participants and Procedures

We recruited 300 participants (100 women, 100 straight men, and 100 gay men; $M_{age} = 39.07$, $SD = 13.13$) from Prolific Academic to participate in this online study. Study 5 had a 2 (messaging type: BAP messaging versus BAO messaging) \times 3 (participant identity: woman versus straight man versus gay man) between-subjects design. Participants in study 5 were randomly assigned to one of the two

messaging conditions and saw one of the two advertisements that were used in study 2a (see *Supplemental Online Appendix F* for full stimuli). After viewing the advertisement, participants filled out the same measures of participants' own perceived humanness (human nature subscale; Haslam 2006; $\alpha = .75$) and purchase intentions (Jiang et al. 2010; $\alpha = .95$) from previous studies. Finally, participants provided their demographic information, including their age, gender, height, weight, and sexual orientation. Controlling for BMI did not significantly influence our results.

Results

We conducted a moderated mediation analysis using PROCESS Model 7 (Hayes 2017). Given that participant identity was a multi-categorical variable (woman, straight man, gay man), we specified for PROCESS to recode the moderator into two dummy-coded variables. The women category served as the reference

against which the straight men and gay men categories were compared to (STRAIGHT MEN = 1 and 0 otherwise; GAY MEN = 1 and 0 otherwise).

In support of hypothesis 3, the results of the moderated mediation analysis revealed that the index of moderated mediation was significant for straight men ($b = -0.37$, $SE = 0.46$, 95% CI = [-0.69, -0.06]), suggesting that the mediating effect of participants' own perceived humanness on the relationship between messaging type and purchase intentions is attenuated among straight men. Furthermore, the index of moderated mediation was not significant for gay men ($b = -0.17$, $SE = .18$, 95% CI = [-0.53, 0.19]), which suggests that the effect of messaging type on purchase intentions occurs via participants' own perceived humanness for both women and gay men.

Discussion

Study 5 identifies a key boundary condition of our findings at the intersection of participants' gender identity and sexual orientation. In previous studies, we found that exposure to health-related advertisements featuring larger-bodied women with BAP (versus BAO) marketing messages increase women's perceived humanness and intentions to purchase the advertised product. However, in studies 1 and 2b we find that, in general, this effect does not hold among men. In study 5, we collected participants' sexual orientation data and found that our proposed effects hold among women and gay men, but not among straight men. While we designed studies 3 and 4 to explore the effect of BAP message framing on purchase intention only for women due to the reported null effect for men that we found in studies 1 and 2b, the question of whether gay men might exhibit the same behaviors as women in this context became relevant after discussion with a colleague who examines the effects of required consumption due to societal expectations across different genders and sexual orientations (Harrold 2021). Specifically, Harrold (2021) finds that, analogous to our research, gay men's consumption closely mirrors that of women when examining the purchase of products used to maintain external identity cues required by existing social norms. In light of this extant research, and our own findings in study 5, it is clear that research examining the intersection of gender identity and sexual orientation is woefully lacking and needed in order to understand how these two components of consumers' identities influence their responses to advertisements.

General Discussion

The current research helps reconcile the conflicting previous findings on the influence of larger-bodied individuals in consumption settings (Campbell and Mohr 2011; Huneke et al. 2015; Lin and McFerran 2016; McFerran et al. 2010a, 2010b; Otterbring and Shams 2019). Further, we bridge the gap between research and practice. In general, the academic literature suggests that marketers should not feature larger-bodied individuals in their product advertising. This recommendation is in direct opposition to the increasingly common promotional practice of including larger-bodied individuals in health-related advertising. The findings from this research have important managerial implications as they provide insight into the types of marketing messages that may be most effective when larger-bodied individuals are featured in health-related advertising. More specifically, the results suggest that the marketing message that accompanies images of larger-bodied women in health-related advertising has an important influence on women's product-related responses.

When the marketing message focuses on the body as a *process* (BAP; compared to the body as an *object*, BAO), women consumers exposed to that marketing message not only feel more human but are also more likely to report increased intentions to purchase and interest in the advertised product. We propose that this effect occurs because when women consumers see an image of a larger-bodied woman in a health-related advertisement with BAO messaging, they contrast away from the larger-bodied woman because they do not want to be associated with how that person looks, which subsequently reduces their purchase intentions for the advertised health-related product; however, when women consumers see an image of a larger-bodied woman in a health-related advertisement with BAP messaging, which focuses on the functionality of the body and does not have to do with how the person in the advertisement looks, they assimilate toward that person, which increases their purchase intentions for the advertised health-related product. To our knowledge, our research is the first to not question *whether* larger-bodied individuals should be included in advertising but instead investigate *how* larger-bodied individuals should be portrayed in advertising. In doing so, we believe we are the first to advocate for the inclusion of larger-bodied individuals in advertising.

From a theoretical perspective, our research makes several key contributions to the literature. First, our research draws from body conceptualization theory

(Franzoi 1995) and introduces body as a process and body as an object framing to the marketing literature. Second, our research contributes to the timely and practically relevant existing research focused on understanding the effect of body diversity in advertising (Cinelli and Yang 2016; Connors et al. 2021; Lou, Tse, and Lwin 2019). Previous research suggests that pairing images of larger-bodied individuals with unhealthy products increases advertisement evaluations among larger-bodied consumers (Connors et al. 2021). Similarly, several individual difference variables have been found to influence consumers' responses to the presence of larger-bodied individuals in advertising (Cinelli and Yang 2016; Lou, Tse, and Lwin 2019). The current research identifies a way to include larger-bodied women in advertising for health-related products in a way that appeals to women (and gay men; see study 5) consumers regardless of their individual differences.

Furthermore, our findings expand upon existing research on dehumanization (Haslam 2006). Most existing dehumanization research examines intergroup dehumanization (Haslam and Stratemeyer 2016); however, our research looks at dehumanization at the individual consumer level and investigates how different marketing messages can make consumers feel more or less human. Moreover, our research explores the downstream consequences of how feeling more or less human influences consumers' purchase intentions for the advertised health-related product. Further, extant research suggests that when women perceive themselves to be less human, that is, objectified, they experience sinful feelings (Chen, Teng, and Zhang 2013), perform worse on cognitive tasks (Gay and Castano 2010), and narrow their presence during social interactions (Saguy et al. 2010). The current research adds to these findings and shows that when the marketing message of an advertisement emphasizes how a woman's body looks (BAO) instead of how her body functions (BAP), women consumers perceive themselves to be more object-like (versus human-like), which lowers their purchase intentions for the advertised product.

Additionally, this research highlights the need to move away from appearance-centric language, which most advertisements featuring larger-bodied individuals currently use. Instead, practitioners should pivot toward functionality-centric language. This finding is further supported by existing body image research (Alleva et al. 2014; Alleva, Veldhuis, and Martjin 2016) that suggests that focusing on the functionality (versus the appearance) of the body can benefit consumers.

Making this shift can help marketers positively contribute to society and move away from a practice that may be hurting both firms and consumers. Our research provides practitioners with clear guidelines on how to portray larger-bodied individuals, who are more representative of the average woman consumer, in health-related advertising in a way that not only increases purchase intentions but also nudges consumers toward healthier lifestyles through the purchase of the advertised health-related product.

The results of this research also indicate that practitioners can create more inclusive advertising without harming their health-related brand. Study 1 suggests portraying a larger-bodied woman with BAP (versus BAO) messaging only increases purchase intentions among women consumers. Furthermore, the results indicate that portraying a larger-bodied man with either BAP or BAO messaging does not significantly influence both men and women consumers' purchase intentions. Additionally, study 2a pretest 1 found that featuring either a thin- or larger-bodied individual in a health-related advertisement did not influence consumers' own perceived humanness; however, given that the average woman in the United States is between sizes 16 and 18 (Christel and Dunn 2017), a larger-bodied woman is perceived to be more similar to many brands' target markets than a thin-bodied woman. While marketers have already started to portray larger-bodied women in advertisements for health-related products, our research highlights the importance of pairing images of larger-bodied women in health-related advertising with messaging that focuses on the body's functionality (versus its appearance). Moreover, our research underscores the importance of not just featuring diverse individuals who have historically been excluded from advertising but doing so in a way that does not negatively impact consumers' intentions to purchase the advertised product.

Limitations and Future Directions

The current research is not without limitations. First, the current research only considers advertisements for health-related products. Additional research should investigate how the presence of larger-bodied individuals in advertisements across other product categories, such as beauty and apparel, home goods, and automobiles, influences consumers' behaviors. The results of this research may not be generalizable across all product categories. For example, the effects of BAP versus BAO framing may be smaller if product category involvement is low or consumers have prior

experience with the advertised product. Differences in the effects of framing the body as an object rather than as a process may also be smaller when brand loyalty is strong.

Second, it is important for researchers to build upon the findings of the current research. For example, there may be additional boundary conditions, such as perceived authenticity of the brand, that influence consumers' responses. Furthermore, the current research focuses solely on the inclusion of larger-bodied individuals in health-related advertising because current health-related advertising in the marketplace is increasingly featuring larger-bodied women. Prior research has extensively investigated how portraying thin and underweight individuals influences consumers (Andersen and Paas 2014; Dittmar and Howard 2004; Halliwell and Dittmar 2004; Yu, Damhorst, and Russell 2011). However, to our knowledge, the literature has yet to study how including several people of varying body sizes in a single advertisement influences consumers. As such, future research should examine whether the presence of multiple body sizes in an advertisement acts as a boundary condition for our results. Additionally, future research should explore whether our results hold with additional dependent variables, such as attitude toward the advertisement.

Third, as we described above, the results of study 5 suggest that our observed effects hold for women and gay men, but not for straight men. While the current research primarily examines the effect of BAO versus BAP message framing on women, the results of study 5 suggest that future research should explore analogous effects among gay men. Furthermore, given that we did not find a significant difference between gay and straight women, we did not differentiate between the two groups; however, future research should investigate whether there are certain conditions in which advertisements featuring larger-bodied individuals differentially influence gay and straight consumers.

Fourth, these studies were conducted with participants based in the United States. As suggested by Lou, Tse, and Lwin (2019), consumer responses to different body sizes are culturally dependent. Consequently, future research should explore whether pairing images of larger-bodied individuals with BAP (versus BAO) marketing messages can mitigate previously reported cross-cultural differences in consumer responses to advertisements featuring larger-bodied individuals. Finally, future research should investigate the downstream consequences of portraying larger-bodied

individuals in advertising. While the current research looks at how the messaging type that accompanies images of larger-bodied individuals in advertising influences consumers' purchase intentions for the advertised product, future research can explore how exposure to a larger-bodied individual paired with one of the two marketing messages in advertising influences consumers' health-related behaviors in subsequent consumption situations.

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