

# The face of the brand: Spokesperson facial width-to-height ratio predicts brand personality judgments

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## Abstract

Brands often employ spokespersons to serve as the face of their organization and spokespersons characteristics can influence consumer behavior. We examined whether a subtle, appearance-based aspect—*facial width-to-height ratio* (fWHR)—affects brand judgments. Specifically, we demonstrate that high (low) fWHR spokespersons are more effective for rugged (sincere) brands leading to more positive ad evaluations, greater brand liking, and higher purchase intentions. Across four experiments, we used across-target and within-individual manipulations of spokesperson fWHR to test our hypotheses and investigate the downstream implications for consumer preferences and purchasing intentions. We find that spokesperson fWHR influenced judgments of spokesperson effectiveness for different kinds of brands (Study 1); spokesperson fWHR impacts a brand's perceived personality (Study 2); and that congruency between spokespersons' faces and brands' personalities influence how much consumers like brands, their advertisements, and how willing they are to purchase advertised products (Studies 3–4). This study has implications for marketers and contributes to the brand personality and person perception literatures by demonstrating how subtle variations in spokespersons' face structure can influence consumer judgments.

## KEY WORDS

advertising, brand personality, endorser, faces, facial width-to-height ratio, fwhr, spokesperson

## 1 | INTRODUCTION

A substantial body of research demonstrates that people imbue brands with personality traits in much the same way as humans (Aaker, 1997; D. H. Kim & Sung, 2013; Sung & Kim, 2010). The resulting set of human characteristics associated with brands, referred to as brand personality, is one of the fundamental aspects by which consumers evaluate brand attractiveness (Aaker, 1997, Davies et al., 2018). For the companies managing brands, brand personality leads to many favorable outcomes, such as strong positive perceptions of brand quality (Clemenz et al., 2012), positive

brand attitudes (Chaudhuri & Holbrook, 2001), and greater brand satisfaction and loyalty (Brakus et al., 2009). Furthermore, by impacting the quantity and quality of brand associations that consumers develop, brand personality has broad psychological implications (Freling & Forbes, 2005). For consumers, anthropomorphizing brands allows them to play a more symbolic role in consumers' lives (Keller, 1993). For example, consumers may purchase brands with specific personalities to signal desirable aspects of themselves to others (Aaker, 1997) or simply to enjoy the feeling of finding a brand that is consistent with their self-image (Aaker, 1999; Swaminathan et al., 2007).

Theorists argue that brand personality emerges through consumers' direct and indirect contact with brands (Aaker, 1997; Shank & Langmeyer, 1994). For example, a spokesperson would impart their personality traits to the brand directly, whereas indirect personality transference occurs when the personality traits associated with nonhuman associative objects are transferred to the brand such as believing a brand is sincere because it makes greeting cards or is sophisticated because it is sold in Saks Fifth Avenue stores. (Aaker, 1997). Experiences with brands lead to the development of associations that shape how consumers perceive the brand's personality. Consumer perceptions of a brand's personality are influenced by a variety of branding elements including the brand's logo (Grohmann, 2008), packaging (Bajaj & Bond, 2018), innovativeness (Coelho et al., 2020), and the attire and behaviors of the brand's frontline employees (Wentzel, 2009). Perhaps the most researched marketing activity associated with brand personality formation is advertising (S. H. Ang & Lim, 2006; Delbaere et al., 2011), with the specific effect of spokesperson on brand personality receiving considerable attention. However, beyond work examining the roles of demographic variables like gender (Debevec & Iyer, 1986; Grohmann, 2009), age (Huber et al., 2013), and broad physical traits like attractiveness (Bower & Landreth, 2001; Kahle & Homer, 1985), little is known about how specific aspects of a spokesperson's *appearance* might affect consumers' perceptions of a brand's personality. The current work aims to address this gap in the brand personality literature by identifying a new aspect of a spokesperson's appearance that influences brand personality, namely facial width-to-height ratio (hereafter referred to as fWHR). We focus on fWHR because it is a seemingly subtle, yet surprisingly robust facial cue, known to drive theoretically important trait inferences related to trustworthiness and dominance (e.g., Geniole et al., 2015; Stirrat & Perrett, 2010). Across four studies, we demonstrate that fWHR predictably affects spokesperson effectiveness (i.e., how well a spokesperson fits a desired brand image), perceived brand personality, and brand preferences. Our research contributes to the brand literature by showing that brand personality perceptions are not only impacted by overt attributes such as age and physical attractiveness, but also by more subtle features such as fWHR. Furthermore, our work offers practical implications for brand managers. Primarily, our findings suggest that strategic inclusion of a high- or low-fWHR spokesperson in advertisement campaigns can shape brand personality perceptions and lead to greater brand liking, ad liking, and purchase intentions. Thus, this study offers managers an additional means by which to tailor spokesperson selection to their existing or desired brand personality.

## 2 | CONCEPTUAL DEVELOPMENT

### 2.1 | Brand personality

Aaker (1997) authored what is viewed as the seminal work on brand personality. Since Aaker's (1997) conceptualization and scale

development, the brand personality construct has become one of the most important concepts in research on how consumers evaluate brands (Japutra & Molinillo, 2019). Research on brand personality focuses on one or more of three aspects of the construct. First, researchers have explored a variety of outcomes of brand personality. Such research demonstrates the positive implications of developing a strong brand personality in terms of consumer perceptions and resulting market outcomes. Second, researchers have explored the factors leading to brand personality formation. Third, researchers have assessed the properties of the brand personality construct itself. We focus on the latter two aspects of brand personality research.

Consumers use a variety of cues when generating impressions of brands (S. H. Ang & Lim, 2006; Orth & Malkewitz, 2008). Here, we focus on the person the brand employs to communicate brand messages, or to be the "face of" the brand. Many advertisements feature endorsers who serve a variety of roles. Famous or attractive spokespeople align brands with the aspirational goals of consumers (Dwivedi et al., 2014). Product category experts lend credibility to brand claims (Till & Busler, 2000). In addition, noncelebrity models and actors help brands communicate to prospective customers via roles in advertisements. In these roles, spokespeople communicate brand attributes and benefits, and signify that the brand is intended for the targeted consumer demographic. The present work builds most directly on research indicating that an endorser's traits influences consumers' perceptions of a brand's personality (Huber et al., 2013; Ilicic et al., 2015, 2018). For example, endorser age influences the perceived age of the brand (Huber et al., 2013), spokesperson gender affects perceptions of brand masculinity and femininity (Debevec & Iyer, 1986; Grohmann, 2009), and the personality traits of celebrity endorsers transfer to the brand to make the brand appear, for instance, more charming, daring, or wholesome (L. Ang et al., 2007). Further, Xiao and Ding (2014) used the novel eigenface method to specifically show that the facial appearance of a spokesperson affects ad liking, brand liking, and purchase intentions. The eigenface method creates an average face from which variants are formed by morphing key features as identified by facial recognition technology and principle components analysis. Xiao and Ding (2014) detail a face by product category interaction in which some faces are better suited for advertising products in a category given (e.g., beer) than (a) other faces and (b) the face is suited to represent a brand in another product category (e.g., cologne). Although informative, as noted by the authors Xiao and Ding (2014, p. 351) "the eigenface method suffers from the limitation that it is hard to interpret and quite nonintuitive... (and) looking at the eigenfaces, it is very hard to tell exactly how each eigenface is different from the others." In the current work, we focus on the effects of endorser fWHR to advance the understanding of endorser effects by considering a subtle, but identifiable, aspect of endorsers that may have important effects on brand perceptions.

Building on research on consumers' connections to products (e.g., Belk, 1988) and brands (e.g., Fournier, 1994), as well as research on the five-factor model of human personality (Norman, 1963), Aaker

(1997) arrived at the five-dimension brand personality scale comprised of sincerity, excitement, competence, sophistication, and ruggedness. Since, a number of researchers have tested the measurement and dimensionality of brand personality. Various dimensions of brand personality have been forwarded including masculinity and femininity (Grohmann, 2009), malignancy and peacefulness (Kaplan et al., 2010), chaos and conspicuousness (Willems et al., 2011), and the Big 5 personality factors (Caprara et al., 2001; Geuens et al., 2009). Nonetheless, Aaker's original scale remains the most predominantly applied measure of brand personality (Eisend & Stokburger-Sauer, 2013; Japutra & Molinillo, 2019). Thus, the present work focuses on the effects of spokesperson fWHR on brand personality as operationalized by Aaker's (1997) perspective of the construct.

Specifically, we investigate the effect of spokesperson fWHR on the perceived sincerity and ruggedness of a brand. This approach is consistent with much of the extant research on brand personality in which the focus is on the subset of the most theoretically relevant aspects of brand personality. For instance, Bajaj and Bond (2018) consider the effects of asymmetry in brand communication elements such as logos and advertising on the single brand personality trait of brand excitement. Likewise, P. Kim et al. (2018) consider the effects of brand partnerships on brand sophistication, sincerity, and ruggedness. Herein, we examine if a subtle, appearance-related attribute, fWHR, influences the perceived sincerity and ruggedness of a spokesperson and brand. As detailed below, the dimensions of sincerity and ruggedness are investigated as research on fWHR has detailed effects related to personal traits of trustworthiness and dominance; traits akin to sincerity and ruggedness. Conversely, to the authors knowledge, extant research on fWHR has not detailed relationships that would hold implications for brand excitement, competence, or sophistication.

## 2.2 | fWHR

fWHR is a static structural feature of all faces. Unlike labile facial cues such as facial expressions or eye gaze direction, fWHR exists independently of facial musculature. It is commonly measured as the ratio between bizygomatic width (i.e., distance from left to right cheekbone) and upper face height (i.e., distance from midbrow to upper lip; Hehman et al., 2015). Although research is mixed on the biological basis for variations in fWHR (Lefevre et al., 2013; Weston et al., 2007) there is evidence indicating that there are robust judgmental biases associated with it. As targets' fWHR increase (i.e., their faces become wider and shorter), perceivers believe that targets are more dominant and tough (Geniole et al., 2015; Hehman et al., 2015). These judgments manifest in the corporate world such that perceivers reliably judge CEOs with relatively greater fWHR as being more dominant (Alrajih & Ward, 2014), and their robustness is meta-analytically validated (Geniole et al., 2015).

This stereotype of dominance may contain a kernel of truth. People with relatively high fWHR self-report as being more behaviorally dominant than do people with relatively low fWHR

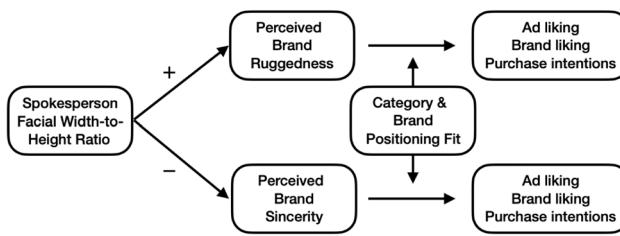
(Lefevre et al., 2014), and some evidence indicates that hockey players with relatively greater fWHR exhibit more behavioral dominance on the ice than their lower fWHR counterparts (Carré & McCormick, 2008). Research indicates that men with greater fWHR are both estimated to be, and actually are, more dominant when engaged in competitive tasks (Carré et al., 2009).

Where high fWHR individuals are seen as more dominant, low fWHR individuals are seen as more trustworthy. Several studies find a negative association between fWHR and perceived trustworthiness (Deska et al., 2018; Lee et al., 2017; Ormiston et al., 2017; Stirrat & Perrett, 2010). Furthermore, there is evidence suggesting an association between fWHR and actual behavior, such that men with low fWHR were less likely to exploit the trust of other players in a collaborative trust game (Stirrat & Perrett, 2010).

These associations between fWHR, dominance, and trustworthiness make the brand personality dimensions of ruggedness and sincerity particularly relevant when considering endorser fWHR. At the heart of Aaker's (1997) measure of brand ruggedness are facets assessing the extent to which a brand is outdoorsy and tough. As such, this brand personality trait aligns with dominance. Conversely, the Aaker's (1997) measure of brand sincerity includes facets gauging the extent to which the brand is down-to-earth, honest, and wholesome; characteristics that are closely associated with trustworthiness. The fWHR literature does not seem to suggest that endorser fWHR should impact any of Aaker's (1997) other brand personality dimensions (excitement, competence, and sophistication) in any particular direction. Therefore, the current work focuses solely on how endorser fWHR influences consumer perceptions of ruggedness and sincerity.

## 2.3 | Current research and hypotheses

The extant literature indicates that people generally judge individuals with relatively greater fWHR as more dominant and untrustworthy. We build on these findings by examining how the fWHR of spokespeople might influence brand perceptions. In particular, we begin with the prediction that spokesperson fWHR will impact consumers' judgments regarding the relationship between the spokesperson and different kinds of brands, with participants believing that the spokesperson would more effectively represent the brand to the extent that their fWHR corresponds with brand personality. We specifically emphasized that it is important for a spokesperson to match a brand's image and fit with the brand. Thus, effectiveness judgments reflect the degree to which participants intuitively believed that the spokesperson matched and fit the brand. Specifically, we predict that because high fWHR targets are viewed as being masculine and tough (Deska et al., 2018) as well as dominant (Geniole et al., 2015), consumers will associate high fWHR spokespeople with rugged brands. Conversely, we predict that because low fWHR targets are viewed as being more trustworthy (Ormiston et al., 2017; Stirrat & Perrett, 2010), consumers will associate low fWHR spokespeople with sincere brands. Stated formally,



**FIGURE 1** Visual representation of our theoretical model

**H1:** Consumers will perceive a high (vs. low) fWHR spokesperson as more effective for a rugged brand personality and a low (vs. high) fWHR spokesperson as more effective for with a sincere brand personality.

If consumers draw on a spokesperson's fWHR when making brand related inferences, this may have implications for how the brand is perceived. Based on the notion that a spokesperson's traits can influence the brand's perceived personality (Aaker, 1997; Huber et al., 2013), spokesperson fWHR should impact inferences about the brand's personality. Specifically,

**H2:** Brands associated with a high (vs. low) fWHR spokesperson will be perceived as more rugged, whereas brands associated with a low (vs. high) fWHR spokesperson will be perceived as more sincere (see Figure 1 for a visual representation of our theoretical model).

Prior research demonstrates that the degree of congruence between a spokesperson and the brand impacts consumer attitudes and preferences (Kahle & Homer, 1985; M. A. Kamins & Gupta, 1994). In particular, high congruence elicits positive responses to the advertisement (M. A. Kamins & Gupta, 1994). For instance, M. A. Kamins and Gupta (1994) find that the use of an endorser in an ad leads to greater perceived ad believability and more favorable product attitudes when there is greater overall perceptual fit between the spokesperson and the advertised product. Similar effects occur when congruence is considered specifically with respect to similarity of spokesperson personality and brand personality. Across Aaker's (1997) five brand personality dimensions, Malodia et al. (2017) find that congruence between a celebrity endorser and the endorsed brand's personality positively impacts brand recall and brand associations. Thus, a highly rugged, moderately sincere, highly unsophisticated, moderately competent, and moderately exciting celebrity will most aid a brand that falls generally at the same point in this five-dimensional space. Using a similar survey methodology, and also considering all five of Aaker's (1997) brand personality dimensions, Arora and colleagues (2021) find celebrity endorser personality congruency with existing brand personality to heighten brand reputation and purchase intentions. Extending brand-spokesperson congruence to fWHR leads to the expectation of more positive brand outcomes when a spokesperson with a high (low) fWHR endorses a rugged (sincere) brand. The generalized form of this expectation is forwarded as H3.

**H3:** Advertisement liking, brand liking, and purchase intentions will be greater when a spokesperson's fWHR is aligned with other brand personality cues.

### 3 | STUDY 1

Study 1 served as an initial test of our hypothesis that consumers would associate high fWHR targets with rugged brands and low fWHR targets with sincere brands (H1). We tested whether a potential endorser's fWHR influences how effective participants believed the target would be as the spokesperson for various brands. Furthermore, we employed a within-identity manipulation of endorser fWHR. In other words, we took the same initial face and manipulated it to have either a high or low fWHR. Using a within-identity manipulation of fWHR affords a strong initial test of our hypothesis by holding all aspects of the stimuli—even identity—constant, only manipulating endorser fWHR.

#### 3.1 | Method

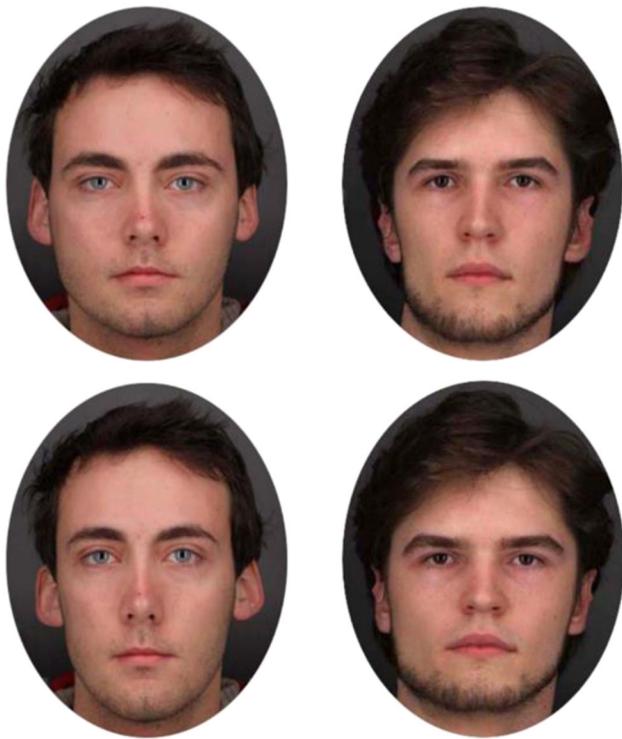
##### 3.1.1 | Participants

Participants were 199 Prolific Academic workers who were US residents ( $M_{age} = 33.73$ ,  $SD = 12.50$ ; 49.5% female).

##### 3.1.2 | Procedures

Participants learned that we were interested in their perceptions of who makes an effective spokesperson for different types of brands. Participants were told that companies often market brands differently depending on the target audience, and that it is important to have a spokesperson who matches the brand image. Participants were also presented with the traits associated with different brand personalities so that they could make more informed judgments. Consistent with Aaker (1997), we told participants that sincere brands are down-to-earth, honest, wholesome, and cheerful; and rugged brands are outdoorsy and tough. To control for facial aspects other than fWHR, the spokesperson stimuli consisted of two emotionally neutral male facial images (from Stirrat & Perrett, 2012) that were manipulated to alter fWHR. Images were manipulated in shape as in previous studies (Rowland & Perrett, 1995; Stirrat & Perrett, 2010), both to increase and to decrease fWHR (see Figure 2). The facial shape of the images was warped by 50% of the linear shape differences between low and high fWHR image groups taken from Stirrat and Perrett (2010).

Study 1 adopted a  $2(\text{Spokesperson: Spokesperson 1 vs. Spokesperson 2}) \times 2(\text{Set: Set 1 vs. Set 2})$  mixed design with Spokesperson as a within-subjects variable and Set as a between-subjects variable. Specifically, participants were randomly assigned to either Set 1 or Set 2. In Set 1, Spokesperson 1 had high fWHR and Spokesperson 2 had low fWHR. Conversely, in Set 2, Spokesperson 1 had low fWHR and Spokesperson 2 had high fWHR. Thus, each participant evaluated two different faces, one with a high fWHR and one with a low fWHR, while only evaluating a single spokesperson's



**FIGURE 2** Stimuli from Study 1. Participants saw either the top two faces (Set 1) or the bottom two faces (Set 2).

face once. This study design allowed us to test whether consumers perceive a high (vs. low) fWHR spokesperson as more effective for a rugged brand personality and a low (vs. high) fWHR spokesperson as more effective for with a sincere brand personality by testing whether effectiveness judgments vary for the same spokesperson across sets.

Participants rated how effective they believed the depicted person would be as a spokesperson for sincere and rugged brands on scales ranging from 1 (*extremely ineffective*) to 7 (*extremely effective*). Before these evaluations, participants were informed that “we are interested in two different kinds of brands” and that sincere brands are “down-to-earth, honest, wholesome, and cheerful,” whereas rugged brands are “outdoorsy and tough” where descriptions were based on Aaker’s (1997) conceptualization of these brand personalities. Specifically, we told participants, “In this survey, you will be shown two people. Your task will be to judge how effective they would be as the spokesperson for different sorts of brands. In particular, we ask that you consider how well they appear to fit the different brands (sincere vs. rugged) that they might be chosen to help market. Then we would like to know what you think about them.” Thus, effectiveness judgments reflect the degree to which participants believed that the spokesperson fit sincere and rugged brands. Participants responded to the items for one target at a time and the targets were presented in a randomized order. Finally, participants provided demographic information and were debriefed.

### 3.2 | Results and discussion

We conducted a 2(Spokesperson: Spokesperson 1 vs. Spokesperson 2)  $\times$  2(Set: Set 1 vs. Set 2) mixed model analysis of variance (ANOVA) with Spokesperson as a within-subjects variable and Set as a between-subjects variable. For the rugged brand, the ANOVA revealed a significant main effect such that Spokesperson 2 was viewed as more effective as a spokesperson ( $M = 5.32$ ,  $SD = 1.36$ ) compared to Spokesperson 1 ( $M = 3.35$ ,  $SD = 1.51$ ),  $F(1, 195) = 221.39$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.53$ . Critical to the expected effect that fWHR affect perceptions of spokesperson fit with a rugged brand is the emergence of a significant Spokesperson by Set interaction in which the Spokesperson 1 better fits the brand in Set 1 and Spokesperson 2 better fit the brand in Set 2 (i.e., when they are high in fWHR); a result that does arise (Spokesperson  $\times$  Set interaction,  $F(1, 195) = 21.42$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.10$ ). As predicted, simple effects revealed that Spokesperson 1 was viewed as being a more effective spokesperson for a rugged brand when presented with high ( $M = 3.72$ ,  $SD = 1.55$ ) versus low fWHR ( $M = 2.99$ ,  $SD = 1.38$ ),  $F(1, 195) = 12.22$ , 95% CI: [0.32, 1.14],  $p = 0.001$ ,  $\eta_p^2 = .06$ . The same effect emerged for Spokesperson 2 such that they were viewed as a more effective spokesperson for a rugged brand when presented with high ( $M = 5.56$ ,  $SD = 1.22$ ) versus low fWHR ( $M = 5.07$ ,  $SD = 1.47$ ),  $F(1, 195) = 6.47$ , 95% CI: [-0.87, -0.11],  $p = 0.012$ ,  $\eta_p^2 = 0.03$ .

For the sincere brand, the ANOVA revealed a significant main effect such that Spokesperson 2 was viewed as less effective as a spokesperson ( $M = 3.48$ ,  $SD = 1.34$ ) compared to Spokesperson 1 ( $M = 4.67$ ,  $SD = 1.49$ ),  $F(1, 196) = 87.37$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.31$ . Again, this main effect was qualified by a significant Spokesperson  $\times$  Set interaction,  $F(1, 196) = 21.74$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.10$ . Simple effects revealed that Spokesperson 1 was viewed as being a more effective spokesperson for a sincere brand when presented with low ( $M = 5.07$ ,  $SD = 1.27$ ) versus high fWHR ( $M = 4.27$ ,  $SD = 1.58$ ),  $F(1, 196) = 15.56$ , 95% CI: [-1.21, -0.40],  $p < 0.001$ ,  $\eta_p^2 = 0.07$ . The same effect emerged for Spokesperson 2 such that they were viewed as a more effective spokesperson for a sincere brand when presented with low ( $M = 3.67$ ,  $SD = 1.34$ ) versus high fWHR ( $M = 3.30$ ,  $SD = 1.33$ ),  $F(1, 196) = 3.88$ , 95% CI: [0.00, 0.75],  $p = 0.050$ ,  $\eta_p^2 = 0.02$ .

These results provide initial support for the hypothesis that spokesperson effectiveness for different brand personalities varies by spokesperson fWHR (H1). Specifically, participants perceived low fWHR spokespersons as better fits for sincere brands compared to a high fWHR spokespersons who, in turn, were deemed better fits for rugged brands than a low fWHR spokespersons. By manipulating the fWHR of the spokesperson’s face, we offered a strong test of our effect, showing that perceivers view the same face as being more effective for a rugged [sincere] brand when presented with high [low] fWHR. Although we observed main effects of the target, these main effects were always qualified by an interaction such that the target’s effectiveness as a spokesperson varied by fWHR in a manner consistent with our predictions.

## 4 | STUDY 2

Study 2 was designed to expand upon our initial findings by testing whether the facial structure of a spokesperson can influence the perceived personality of a brand. In other words, might perceptions of the brand depend on who is representing it? We hypothesized that a brand would seem relatively more rugged if it was represented by a high fWHR spokesperson whereas the same brand would seem relatively more sincere when represented by a low fWHR spokesperson (H2).

### 4.1 | Method

#### 4.1.1 | Participants

Participants were 280 undergraduate students at a midsized mid-western university. The study took place at the end of the semester so we implemented a time-based check to exclude participants who did not adequately read the study instructions. We doubled the high end of the range of average silent reading speed for adults in English, yielding a conservative cutoff of 10 words per second (Brysbaert, 2019). Given that the study instructions consisted of 135 words, we only included participants who spent at least 13 s reading the instructions ( $N = 121$ ;  $M_{age} = 21.03$ ,  $SD = 3.76$ ; 66.7% female).

#### 4.1.2 | Procedure

Participants learned that we were interested in how the spokesperson of an advertisement influences a brands' perceived sincerity and ruggedness. We asked participants to let us know what they would think of the brand if the advertising agency were to use this person as a spokesperson. As in Study 1, we provided participants with the traits associated with each brand personality so that they could make informed judgments.

Participants were randomly assigned to view either a high or low fWHR version of a single spokesperson in a between-subjects main effect design. This study used the same morphed stimuli from Study 1. In the first part of the study, participants viewed two faces side by side: one with high fWHR and one with low fWHR and were asked to take a moment to look at these two potential brand spokespeople. Participants then proceeded to view a single advertisement for the fictitious *Rowe Soups* brand featuring either the high or low fWHR spokesperson (see Figure 3).

Participants rated how sincere and rugged the brand seemed given the advertisement on scales ranging from 1 (*Not at all*) to 7 (*Very much*). Finally, participants provided demographic information and were debriefed.

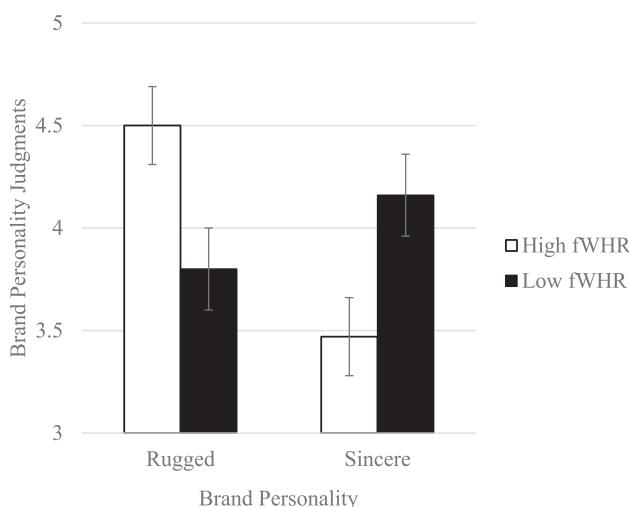
### 4.2 | Results and discussion

We conducted a 2(fWHR: Low vs. High)  $\times$  2(Brand Personality Dimension: Sincerity vs. Ruggedness) mixed model ANOVA with

### Rowe Soups. From our kitchen to yours.



**FIGURE 3** Example stimuli from Study 2 showing a relatively high fWHR spokesperson paired with an advertisement for Rowe Soups



**FIGURE 4** Ratings of how rugged and sincere brands seemed to participants as a function of spokesperson facial width-to-height ratio in Study 2

fWHR as the between-subjects variable and brand personality dimension as the within-subjects variable. Results yielded only a significant interaction  $F(1, 115) = 8.66$ ,  $p = 0.004$ ,  $\eta_p^2 = 0.07$  (see Figure 4). Simple effects revealed that the brand seemed more sincere when represented by a low fWHR spokesperson ( $M = 4.16$ ,  $SD = 1.46$ ) compared to a high fWHR spokesperson ( $M = 3.47$ ,  $SD = 1.52$ ),  $F(1, 115) = 7.35$ , 95% CI: [0.196, 1.292],  $p = 0.008$ ,  $\eta_p^2 = 0.059$ . Conversely, the brand seemed more rugged when represented by a high fWHR spokesperson ( $M = 4.50$ ,  $SD = 1.46$ ) compared to a low fWHR spokesperson ( $M = 3.80$ ,  $SD = 1.66$ ),  $F(1, 115) = 6.20$ , 95% CI: [0.147, 1.290],  $p = 0.014$ ,  $\eta_p^2 = 0.051$ .<sup>1</sup>

Results from Study 2 support H2. When a face is present among other relevant information in an advertisement context, fWHR influences the brand's perceived personality. Specifically, participants

<sup>1</sup>Although our hypotheses predicted differences across faces of different fWHRs, it is worth noting that whereas ruggedness and sincerity perceptions were different for the high fWHR spokesperson,  $F(1, 115) = 10.06$ ,  $p = 0.002$ , they did not differ for the low fWHR spokesperson,  $F(1, 115) = 1.11$ ,  $p = 0.29$ .

viewed the brand as more sincere when the advertisement contained an image of a low fWHR spokesperson compared to a high fWHR spokesperson. Conversely, they viewed the brand as more rugged when the advertisement contained an image of a high fWHR spokesperson compared to a low fWHR spokesperson. These results build upon and extend prior research by demonstrating that in addition to demographic and broad physical traits (Bower & Landreth, 2001; Huber et al., 2013), even a subtle facial feature (i.e., fWHR) can influence perceived brand personality. Study 2 also extended Study 1 by placing the endorsers within advertisements rather than having participants evaluate the would-be-spokespeople in isolation. As such, the task is similar to a consumer viewing a billboard advertisement or print advertisement. Thus, Study 2's design allows for these results to be more readily applicable to advertisements that consumers might encounter in their daily lives. Indeed, this study indicates that even on a simple flyer-style ad, the presence of a spokesperson's face can influence how a brand's personality is perceived.

## 5 | STUDY 3

We conducted two final studies to test possible downstream consequences of the effect of spokesperson fWHR on brand personality. Specifically, we tested whether the fWHR of an individual in an advertisement for a brand influences the extent to which people report liking the advertisement, liking the brand, and being willing to purchase the advertised product. Drawing on research demonstrating that congruence between a brand and a spokesperson elicits positive responses from consumers (M. A. Kamins & Gupta, 1994), we predicted that a congruency effect would emerge such that liking and purchase intentions would increase when the spokesperson's fWHR aligned with the brand personality (H3).

### 5.1 | Method

#### 5.1.1 | Participants

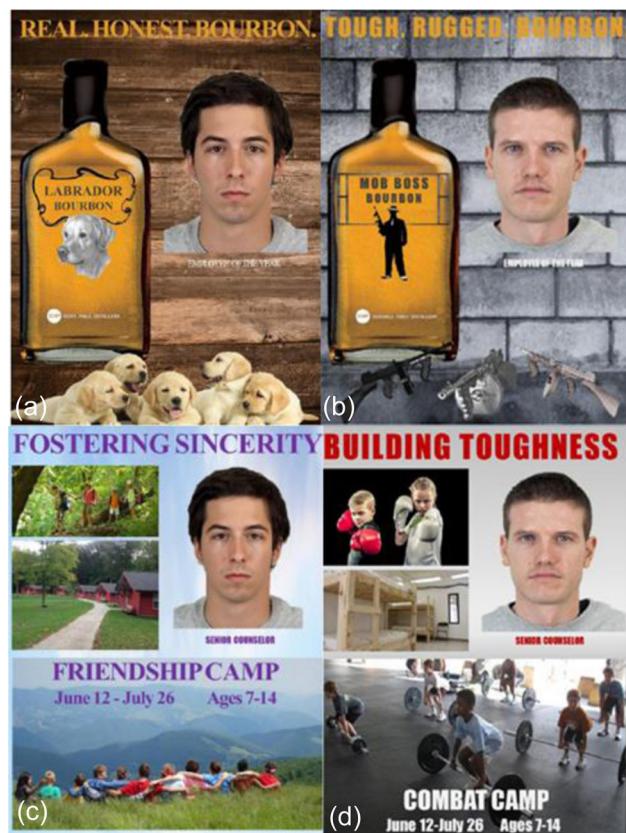
Participants of Study 3 were 230 MTurk workers who were US residents ( $M_{age} = 34.99$ ,  $SD = 11.70$ ; 47.3% female). Because the legal drinking age in the United States is 21, and thus only people who are at least 21 years of age can purchase bourbon (a focal product in the current study), we restricted analyses to participants who reported being at least 21 years old ( $N = 221$ ;  $M_{age} = 35.48$ ,  $SD = 11.55$ ; 49.3% female). Our results do not change significantly if we include all 230 participants in our analyses.

#### 5.1.2 | Procedure

Participants were informed that the study was designed to assist an advertising agency in gathering consumer opinions about ad campaigns they are developing for a bourbon company. We informed

participants they would examine 10 different versions of an advertisement and tell us what they thought about each one. We told participants each ad would have a different spokesperson and that they should carefully examine the spokesperson for each ad and give their honest opinions about each ad and brand. Stimuli were obtained from the Chicago Face Database (Ma et al., 2015).

We created 20 different versions of two advertisements (see Figure 5). Each advertisement was for one of two fictitious brands, *Labrador Bourbon* (sincere) and *Mob Boss Bourbon* (rugged). A pretest ( $N = 49$  MTurk workers) confirmed the effectiveness of the brand personality manipulation. To evaluate ad elements other than the spokesperson, participants in the pretest were asked to evaluate an ad "that is still in the design phase" and informed that there will be an image added to the final ad that is not yet available. The pretest ads included an oval in the place of the spokesperson with a message indicating that a headshot photo was to be inserted. Participants indicated the extent to which they agreed that the ad makes the brand seem rugged and sincere on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). As intended, people deemed *Mob Boss* bourbon



**FIGURE 5** Example stimuli from Studies 3 and 4. (a) A relatively low fWHR spokesperson paired advertisement for a sincere bourbon, whereas (b) shows a relatively high fWHR spokesperson paired advertisement for a rugged bourbon. (c) A relatively low fWHR spokesperson paired advertisement for a sincere summer camp, whereas (a) shows a relatively high fWHR spokesperson paired advertisement for a rugged summer camp. fWHR, facial width-to-height ratio

more rugged ( $M_{Mob\ Boss} = 4.84$ ,  $SD_{Mob\ Boss} = 1.84$  vs.  $M_{Labrador} = 3.67$ ,  $SD_{Labrador} = 1.93$ ;  $t(47) = 2.18$ ,  $p = 0.034$ ) and less sincere ( $M_{Mob\ Boss} = 3.44$ ,  $SD_{Mob\ Boss} = 1.50$  vs.  $M_{Labrador} = 4.88$ ,  $SD_{Labrador} = 1.33$ ;  $t(47) = 3.54$ ,  $p = 0.001$ ) than Labrador Bourbon.

The final version of each advertisement included a picture of one high or low fWHR person, resulting in 40 advertisements (i.e., 10 rugged high fWHR, 10 rugged low fWHR, 10 sincere high fWHR, 10 sincere low fWHR). We randomly assigned participants to view ads for either the rugged (Mob Boss) or sincere (Labrador) brand. Each participant was then randomly assigned to 10 of the 20 total ads (five featuring a high fWHR face and five featuring a low fWHR face).

Participants evaluated the ad on two items that used 9-point scales ranging from 1 (*negative, dislike*) to 9 (*positive, like*). Using the same scales, participants then reported their overall evaluation of the Labrador [Mob Boss] Bourbon brand. Next, participants reported how likely they would be to purchase Labrador [Mob Boss] Bourbon. Participants made ratings for this final item on a 9-point scale ranging from 1 (*unlikely*) to 9 (*likely*). Finally, participants provided demographic information and were debriefed.

## 5.2 | Results and discussion

To investigate the extent to which spokesperson's fWHR interacted with brand personality to predict ad liking, brand liking, and purchase intentions, we ran a 2 (fWHR: low vs. high)  $\times$  2 (brand personality: rugged vs. sincere) mixed model ANOVA. Target fWHR was a repeated factor and brand personality was a between-subjects factor.

### 5.2.1 | Ad liking

This analysis did not produce a main effect of fWHR,  $F(1, 219) = 3.19$ ,  $p = 0.076$ , 95% CI:  $[-0.009, 0.184]$ ,  $\eta_p^2 = 0.014$ . However, it produced a significant main effect of brand personality,  $F(1, 219) = 7.81$ ,  $p = 0.006$ , 95% CI:  $[0.187, 1.082]$ ,  $\eta_p^2 = 0.034$ . Participants liked the sincere ad ( $M = 3.18$ ,  $SD = 1.69$ ) more than the rugged ad ( $M = 2.55$ ,  $SD = 1.68$ ). Critically, this was qualified by a significant interaction,  $F(1, 219) = 7.60$ ,  $p = 0.006$ ,  $\eta_p^2 = 0.034$ . When the brand was rugged, participants liked the ad containing a high fWHR spokesperson ( $M = 2.66$ ,  $SD = 1.59$ ) more than the ad containing a low fWHR spokesperson ( $M = 2.44$ ,  $SD = 1.39$ ),  $t(114) = 3.04$ ,  $p = 0.003$ , 95% CI:  $[-0.37, -0.08]$ ,  $d = 0.29$ . However, when the brand was sincere, there were no significant effects of fWHR on ad liking  $t(105) = 0.74$ ,  $p = 0.461$ , 95% CI:  $[-0.08, 0.017]$ ,  $d = 0.07$ . Participants reported liking the ad equally regardless of whether it contained a low fWHR spokesperson ( $M = 3.21$ ;  $SD = 1.95$ ) or a high fWHR spokesperson ( $M = 3.16$ ,  $SD = 1.95$ ).

### 5.2.2 | Brand liking

This analysis did not produce a main effect of fWHR,  $F(1, 219) = 3.74$ ,  $p = 0.054$ , 95% CI:  $[-0.002, 0.183]$ ,  $\eta_p^2 = 0.017$ . It did, however,

produce a significant main effect of brand personality,  $F(1, 219) = 11.76$ ,  $p < 0.001$ , 95% CI:  $[0.340, 1.258]$ ,  $\eta_p^2 = 0.051$ . Participants liked the sincere brand ( $M = 3.33$ ,  $SD = 1.73$ ) more than the rugged brand ( $M = 2.53$ ,  $SD = 1.73$ ). As predicted, this was qualified by a significant interaction,  $F(1, 219) = 7.75$ ,  $p = 0.006$ ,  $\eta_p^2 = 0.034$ . When the brand was rugged, participants liked the brand more when the ad contained a high fWHR spokesperson ( $M = 2.65$ ,  $SD = 1.63$ ) compared to when the ad contained a low fWHR spokesperson ( $M = 2.43$ ,  $SD = 1.43$ ),  $t(114) = 3.32$ ,  $p = 0.001$ , 95% CI:  $[-0.35, -0.09]$ ,  $d = 0.32$ . However, when the brand was sincere, there were no significant effects of fWHR on brand liking,  $t(105) = 0.61$ ,  $p = 0.546$ , 95% CI:  $[-0.09, 0.17]$ ,  $d = 0.06$ . Participants reported liking the brand equally regardless of whether it contained a low fWHR spokesperson ( $M = 3.35$ ,  $SD = 1.99$ ) or a high fWHR spokesperson ( $M = 3.31$ ,  $SD = 1.98$ ).

### 5.2.3 | Purchase intention

The results for purchase intention paralleled those for ad liking and brand liking. Specifically, there was no main effect of fWHR,  $F(1, 217) = 1.90$ ,  $p = 0.170$ , 95% CI:  $[-0.029, 0.164]$ ,  $\eta_p^2 = 0.009$ . However, there was a significant main effect of brand personality,  $F(1, 217) = 6.62$ ,  $p = 0.011$ , 95% CI:  $[0.143, 1.079]$ ,  $\eta_p^2 = 0.029$ . Participants reported being more willing to purchase the sincere brand ( $M = 2.89$ ,  $SD = 1.76$ ) than the rugged brand ( $M = 2.28$ ,  $SD = 1.77$ ). Finally, this was qualified by a significant interaction,  $F(1, 219) = 5.49$ ,  $p = 0.020$ ,  $\eta_p^2 = 0.024$ . When the brand was rugged, participants were more likely to purchase the product when the ad contained a high fWHR spokesperson ( $M = 2.37$ ,  $SD = 1.68$ ) than when the ad contained a low fWHR spokesperson ( $M = 2.19$ ,  $SD = 1.53$ ),  $t(113) = 2.64$ ,  $p = 0.009$ , 95% CI:  $[-0.32, -0.05]$ ,  $d = 0.25$ . However, when the brand was sincere, there were no significant effects of fWHR on brand preference  $t(105) = 0.68$ ,  $p = 0.496$ , 95% CI:  $[-0.09, 0.18]$ ,  $d = 0.07$ . Participants reported equivalent purchase intentions regardless of whether the ad contained a low fWHR spokesperson ( $M = 2.92$ ;  $SD = 1.99$ ) or a high fWHR spokesperson ( $M = 2.87$ ,  $SD = 1.99$ ).

Study 3 indicates that the facial structure of a spokesperson has implications for both ad and brand liking as well as purchase intentions. Consistent with H3, when a bourbon advertisement described a brand as rugged, people liked the advertisement more, liked the brand more, and were more willing to purchase the product when the advertisement contained a high fWHR spokesperson compared to a low fWHR spokesperson. This is consistent with prior research demonstrating that consumers respond positively to congruence between a brand and its spokesperson (M. A. Kamins & Gupta, 1994). However, when a bourbon advertisement described the brand as sincere, spokesperson fWHR did not influence advertisement liking, brand liking, or purchase intentions. It is worth briefly noting that although the main effects of fWHR on ad liking ( $p = 0.076$ ) and brand liking ( $p = 0.054$ ) were nonsignificant, they both approached our  $\alpha = 0.05$  cutoff, suggesting an avenue for future, more directly targeted research.

## 6 | STUDY 4

Although Study 3 demonstrated that high fWHR targets amplify preference for a bourbon brand when it is described as rugged, we did not observe these effects when we described the same brand as sincere. One possibility is that bourbon is a product that is stereotypically rugged as opposed to sincere. Thus, we may have been relatively more able to shift participants' perceptions of the brand when we described it consistently, but not inconsistently, with preconceived notions of the product category in which the brand competes. To further explore this possibility, Study 4 served as a conceptual replication of Study 3 but with a product that people see as stereotypically sincere (i.e., summer camp). Hence, we predicted that a low fWHR spokesperson would increase preference for the summer camp with a sincere brand personality whereas spokesperson fWHR should not impact preference for the summer camp with a rugged brand personality.

### 6.1 | Method

#### 6.1.1 | Participants

We were primarily interested in sampling participants who reported having at least one child between 5 and 12 years of age so that summer camps would be a relevant product category to them as consumers. We used TurkPrime (now known as CloudResearch; Litman et al., 2017) to recruit participants who had at least one child aged 0–19 (the most precise age bracket that was available). We estimated that about half of those with at least one child aged 0–19 would have a child aged 5–12, so we requested 420 participants. Ultimately, 425 participants completed the survey items, and 227 ( $M_{age} = 36.20$ ,  $SD = 6.90$ ; 64.3% female) of them self-reported having at least one child aged 5–12 years. Results are similar if we run our analyses on the entire sample.

#### 6.1.2 | Procedure

The procedure for Study 4 was similar to that of Study 3. However, instead of viewing and rating advertisements for bourbon, participants ( $N = 78$  MTurk workers,  $M_{age} = 33.51$ ,  $SD = 10.53$ ; 39.7% female) were asked the extent to which they agreed that summer camp or bourbon brands are sincere or rugged in general on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The results confirmed that bourbon brands are more rugged ( $M = 5.19$ ,  $SD = 1.51$ ) than sincere ( $M = 3.87$ ,  $SD = 1.59$ ),  $t(77) = 4.84$ ,  $p < 0.001$ ) while summer camp brands are viewed as more sincere ( $M = 5.23$ ,  $SD = 1.32$ ) than rugged ( $M = 4.17$ ,  $SD = 1.72$ ),  $t(76) = 3.76$ ,  $p < 0.001$ ). Further, bourbon is more rugged than summer camp,  $t(77) = 3.93$ ,  $p < 0.001$  and summer camp is more sincere than bourbon,  $t(76) = 6.10$ ,  $p < 0.001$ . Thus, we chose summer camp to test whether a complementary effect to that observed in Study 3 would emerge

(i.e., a low fWHR spokesperson would increase preference for the summer camp with a sincere brand personality).

We created 20 different versions of two advertisements (see Figure 5). Each advertisement was for one of two novel brands—*Friendship Camp* and *Combat Camp*. This resulted in 40 advertisements (i.e., 10 rugged high fWHR, 10 rugged low fWHR, 10 sincere high fWHR, 10 sincere low fWHR). A second pretest verified that the brand personality manipulation worked as intended, such that combat camp was perceived to be more rugged and less sincere.

Other than the change in stimuli, the procedure was identical to that employed in Study 3 and used the same advertisement and brand liking measures. Subsequently, we asked participants how likely they would be to send their child to *Friendship* [*Combat*] camp, on a 9-point scale ranging from 1 (*unlikely*) to 9 (*likely*). Finally, participants provided demographic information and were debriefed.

### 6.2 | Results and discussion

To investigate the extent to which the spokesperson's (i.e., the camp counsellor) fWHR interacted with brand personality to predict ad liking, brand liking, and purchase intentions, we ran a 2 (fWHR: low vs. high)  $\times$  2 (brand personality: rugged vs. sincere) mixed model ANOVA. Target fWHR was a repeated factor and brand personality was a between-subjects factor.

#### 6.2.1 | Ad liking

This analysis produced a main effect of fWHR,  $F(1, 225) = 8.40$ ,  $p = 0.004$ , 95% CI: [0.052, 0.271],  $\eta_p^2 = 0.036$ . Participants liked the ad containing a low fWHR spokesperson ( $M = 3.54$ ,  $SD = 1.75$ ) more than the ad containing a high fWHR spokesperson ( $M = 3.38$ ,  $SD = 1.69$ ). It also produced a significant main effect of brand personality,  $F(1, 225) = 11.48$ ,  $p < 0.001$ , 95% CI: [0.307, 1.161],  $\eta_p^2 = 0.049$ . Participants liked the sincere ad ( $M = 3.85$ ,  $SD = 1.63$ ) more than the rugged ad ( $M = 3.11$ ,  $SD = 1.63$ ). Critically, these lower order effects were qualified by a significant interaction,  $F(1, 225) = 6.61$ ,  $p = 0.011$ ,  $\eta_p^2 = 0.029$ . When the brand was sincere, participants liked the ad containing a low fWHR spokesperson ( $M = 4.00$ ,  $SD = 1.75$ ) more than the ad containing a high fWHR spokesperson ( $M = 3.70$ ,  $SD = 1.71$ ),  $t(108) = 4.16$ ,  $p < 0.001$ , 95% CI: [0.16, 0.45],  $d = 0.40$ . However, when the brand was rugged, there were no significant effects of fWHR on ad liking  $t(117) = 0.22$ ,  $p = 0.826$ , 95% CI: [-0.15, 0.18],  $d = 0.02$ . Participants reported liking the ad equally regardless of whether it contained a low fWHR spokesperson ( $M = 3.12$ ;  $SD = 1.66$ ) or a high fWHR spokesperson ( $M = 3.10$ ,  $SD = 1.62$ ).

#### 6.2.2 | Brand liking

This analysis produced a main effect of fWHR,  $F(1, 225) = 8.53$ ,  $p = 0.004$ , 95% CI: [0.050, 0.259],  $\eta_p^2 = 0.037$ . Participants liked the

brand with a low fWHR spokesperson ( $M = 3.52$ ,  $SD = 1.83$ ) more than the brand with a high fWHR spokesperson ( $M = 3.37$ ,  $SD = 1.72$ ). It also produced a significant main effect of brand personality,  $F(1, 225) = 12.87$ ,  $p < 0.001$ , 95% CI: [0.362, 1.244],  $\eta_p^2 = 0.054$ . Participants liked the sincere brand ( $M = 3.86$ ,  $SD = 1.68$ ) more than the rugged brand ( $M = 3.06$ ,  $SD = 1.68$ ). As predicted, these lower order effects were qualified by a significant interaction,  $F(1, 225) = 11.75$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.050$ . When the brand was sincere, participants liked the brand containing a low fWHR spokesperson ( $M = 4.03$ ,  $SD = 1.81$ ) more than the brand with an ad containing a high fWHR spokesperson ( $M = 3.69$ ,  $SD = 1.74$ ),  $t(108) = 3.73$ ,  $p < 0.001$ , 95% CI: [0.142, 0.463],  $d = 0.43$ . However, when the brand was rugged, there were no significant effects of fWHR on brand liking,  $t(117) = 0.36$ ,  $p = 0.719$ , 95% CI: [-0.18, 0.12],  $d = 0.03$ . Participants reported liking the brand equally regardless of whether it contained a low fWHR spokesperson ( $M = 3.05$ ;  $SD = 1.73$ ) or a high fWHR spokesperson ( $M = 3.07$ ,  $SD = 1.65$ ).

### 6.2.3 | Purchase intention

This analysis produced a main effect of fWHR,  $F(1, 225) = 8.79$ ,  $p = 0.003$ , 95% CI: [0.050, 0.259],  $\eta_p^2 = 0.038$ . Participants reported being more likely to send their child to the camp with a low fWHR spokesperson ( $M = 2.90$ ,  $SD = 1.85$ ) than the camp with a high fWHR spokesperson ( $M = 2.75$ ,  $SD = 1.79$ ). It also produced a significant main effect of brand personality,  $F(1, 225) = 13.60$ ,  $p < 0.001$ , 95% CI: [0.394, 1.299],  $\eta_p^2 = 0.057$ . Participants reported being more willing to send their child to the sincere camp ( $M = 3.27$ ,  $SD = 1.73$ ) than the rugged camp ( $M = 2.42$ ,  $SD = 1.73$ ). Critically, these lower order effects were qualified by a significant interaction,  $F(1, 225) = 8.08$ ,  $p = 0.005$ ,  $\eta_p^2 = 0.035$ . When the camp's brand was sincere, participants were more willing to send their child to the camp when the ad contained a low fWHR spokesperson ( $M = 3.42$ ,  $SD = 1.88$ ) than when the ad contained a high fWHR spokesperson ( $M = 3.11$ ,  $SD = 1.87$ ),  $t(108) = 3.73$ ,  $p < 0.001$ , 95% CI: [0.14, 0.46],  $d = 0.36$ . However, when the camp's brand was rugged, there were no significant effects of fWHR,  $t(117) = 0.10$ ,  $p = 0.924$ , 95% CI: [-0.13, 0.14],  $d = 0.01$ . Participants reported equivalent purchase intentions regardless of whether the ad contained a low fWHR spokesperson ( $M = 2.42$ ;  $SD = 1.70$ ) or a high fWHR spokesperson ( $M = 2.42$ ,  $SD = 1.65$ ).

Consistent with H3, the results of Study 4 parallel the results of Study 3. Specifically, when a summer camp advertisement conveyed the brand as sincere, people liked the advertisement more, liked the brand more, and were more willing to send their children to the camp when the advertisement contained a low fWHR spokesperson compared to a high fWHR spokesperson. Conversely, when a summer camp advertisement described the brand as more rugged, fWHR did not influence advertisement liking, brand liking, or purchase intentions. Our pretest confirmed a category effect such that summer camp is stereotypically sincere compared to rugged. Thus, as in Study 3, we were more able to shift participants' perceptions of the brand when it was described consistently, but not

inconsistently, with consumers' preconceived product category beliefs about the ruggedness and sophistication. Together, Study 3 and Study 4 supported our hypothesis that consumers would respond more positively toward the advertisement when the spokesperson's fWHR was congruent with the brand's personality.

## 7 | GENERAL DISCUSSION

In the current work, we tested whether a spokesperson's fWHR influences brand impressions. Study 1 served as an initial test of the hypothesis that consumers will associate a spokesperson with different brand personalities based on the spokesperson's fWHR. Using a strong, within-identity manipulation of fWHR, results indicated that perceivers judged low fWHR targets more effective spokespeople for sincere brands than high fWHR targets. Conversely, perceivers judged high fWHR targets as more effective spokespeople for rugged brands than low fWHR targets.

Study 2 demonstrated that perceivers found a brand to be more sincere when advertisements included a low fWHR face compared to a high fWHR face. In contrast, perceivers evaluated a brand as more rugged when the advertisement contained a high fWHR face compared to a low fWHR face. Studies 3-4 focused on the downstream effects of a spokesperson's fWHR on advertisement liking, brand liking, and purchase intentions. When spokesperson fWHR was congruent with the conveyed brand personality, preferences and attitudes toward the brand were more positive. This effect was qualified by the product category such that the observed congruence effect emerged when the brand's personality was consistent with preconceived notions about the product category.

### 7.1 | Theoretical implications

This study makes several theoretical contributions to the brand personality literature. Foremost, it introduces a novel predictor of a brand's perceived personality. Although extant work has shown that brand personality can be shaped by overt spokesperson features such attractiveness (Bower & Landreth, 2001), gender (Grohmann, 2009), and age (Huber et al., 2013), there is dearth of research examining how subtle physical attributes might influence a brand's perceived personality. Drawing on the brand trait transference and person perception literatures (Aaker, 1997; Geniole et al., 2015; Huber et al., 2013; Stirrat & Perrett, 2010), the current research addresses this gap in the brand personality literature by demonstrating that subtle structural aspects of a brand spokesperson's face can influence the extent to which brands are perceived as being sincere or rugged.

Furthermore, these results indicate that beyond simply coloring judgments of brand personality, spokesperson facial structure can even influence purchasing intentions. Indeed, when paired with a high fWHR spokesperson, people indicated a greater willingness to purchase a rugged bourbon brand. Conversely, when paired with a low fWHR spokesperson, people indicated a greater willingness to

send their children to a sincere summer camp. Thus, this study builds on previous research on spokesperson appearance (e.g., Su et al., 2021) and underscores the importance of exploring how seemingly subtle spokesperson cues can influence judgments of not just the individual, but of things associated with them in their environment (Ilicic et al., 2018). Our findings also align with research showing that congruency between product relevant cues and brand personality enhances consumer preference (Ranaweera et al., 2021). More specifically, that endorsers whose physical traits are perceived to align with desired product characteristics in terms of ruggedness and sincerity adds to evidence supporting the "match-up effect" previously observed to heighten spokesperson effectiveness on the basis of gender (Debevec & Iyer, 1986), attractiveness (Bower & Landreth, 2001; M. Kamins, 1990), male muscularity (Lynch & Schuler, 1994), and overall facial structure (Xiao & Ding, 2014).

This study has implications for the person perception, and specifically fWHR, literatures. Past research has primarily focused on the relationship between fWHR and perceived (Geniole et al., 2015; Stirrat & Perrett, 2010) and actual (Carré & McCormick, 2008; Carré et al., 2009; Lefevre et al., 2014) dominant and untrustworthy behavior. Notably, these judgments are typically construed within the person. In other words, a person with a high fWHR might be judged more aggressive. However, the current work contributes to the person perception literature by demonstrating a novel implication of this person-level characteristic. Specifically, we show that not only does a person's fWHR influence judgments of the specific person, but these judgments spill over and affect things associated with the person such as the brand.

A growing body of research documents the tendency for consumers to reason about products and brands as though they have human characteristics (Aggarwal & McGill, 2012; H.-Y. Kim & McGill, 2018; Puzakova & Kwak, 2017). This is referred to as anthropomorphism and extant work in this area has investigated when consumers will prefer anthropomorphized products (Chen et al., 2017); individual difference factors that predict the tendency to engage in anthropomorphism (Whelan et al., 2019); and when product anthropomorphism as a marketing strategy can backfire (Puzakova & Aggarwal, 2018; Puzakova et al., 2013). Recently, it has been shown that consumers view some products, like cars and clocks, as having faces and the fWHR of the product consequently elicits inferences similar to those drawn from human faces (Maeng & Aggarwal, 2017). Specifically, high product fWHR promotes inferences of dominance. Our findings suggest that product fWHR may also have implications for brand inferences such that products with high (low) fWHR will lead consumers to infer that the brand is more rugged (sincere). If product fWHR does impact brand inferences, it would be beneficial for marketers to have greater insight into the feasibility of using product fWHR as a strategic tool given their brand's existing personality. In particular, it is not clear whether (or when) product design will override established brand personalities, or how consumers will respond to product fWHR and brand personality incongruities. The intersection of fWHR, brand personality, and product design offers a fruitful context for new insights that would be of interest to both managers and researchers alike.

## 7.2 | Managerial implications

Our findings also contribute to research on advertising spokesperson effects and give rise to practical implications for advertising managers. To date, research has considered the effects of three types of spokesperson traits on brand perceptions: demographic traits such as age and gender, personality traits, and physical attractiveness. Much of this study described a matching effect such that people perceive the brand as aligning with the focal characteristic of the endorser (Knoll & Matthes, 2017). For example, a younger endorser leads to perceptions of a more youthful brand (Huber et al., 2013), a more daring celebrity endorser makes brands appear more charming (L. Ang et al., 2007), and a more physically attractive spokesperson lends credence to beauty-related products (Bower & Landreth, 2001). Advertising executives are adept at aligning spokesperson traits with desired brand perceptions. For instance, a well-documented goal of Buick's hiring of then 25-year-old Tiger Woods as an endorser was to make the brand seem more youthful to better appeal to a younger audience (Irwin, 2001). The present research documents a similar feature-matching effect. However, it does so with a subtler characteristic. For well-known celebrity endorsers, consumers' existing personality trait assessments likely dominate a subtler personality indicator such as fWHR. Yet, celebrities serve as endorsers in only a quarter of ads featuring a spokesperson (Negi et al., 2018). The use of lesser-known endorsers, such as employees or customers, is more common. Combining the subtlety of fWHR and the prevalence of noncelebrity spokespeople leads to the conclusion that the effects observed here are relevant to a significant portion of advertising campaigns and may not be explicitly considered by those creating the ads. That the fWHR of the spokesperson affected brand personality, ad liking, brand liking, and purchase intentions when embedded with strong brand personality cues (e.g., visual imagery and taglines referencing personality traits) indicates the need to consider fWHR as part of the ad execution. Thus, our research suggests that marketing managers who wish to portray their brands as more rugged (sincere) should feature spokespersons with high (low) fWHR in their advertising campaigns. Moreover, managers of brands with established rugged (sincere) personalities can expect greater advertisement liking, brand liking, and purchase intentions after highlighting spokespersons with high (low) fWHR in their advertisements. Thus, applying the current findings will also aid advertisers in optimizing the efficiency of ad spending.

Although this study detailed the effects of responses to human spokesperson fWHR in an advertising setting, the results likely hold implications across an array of brand-customer interactions and a variety of brand communication agents. In particular, the rise of artificial intelligence and machine learning has spawned growing use of virtual customer service agents including ones with human-like avatars (e.g., Grand View Research, 2021). The physical appearance (S. A. A. Jin & Bolebruch, 2009) and personalities (S. A. Jin & Sung, 2010) of such avatars have been shown to affect perceptions of brands including perceptions of brand sincerity (S. A. Jin &

Sung, 2010). The shape faces of such avatars can be easily altered to feature a lower or higher fWHR. Indeed, unlike more traditional messaging, artificial intelligence may allow such transformations to be highly context specific. For instance, initial information indicating a customer complaint may suggest conveying sincerity via an avatar with a low fWHR. Conversely, and for example, a firm selling heavy equipment may direct inquiries about product specifications to an avatar with a high fWHR to reinforce perceptions of product ruggedness. Similarly, brand spokes-characters, be they caricatures of people (Garretson & Niedrich, 2004; van Hoolwerff, 2014) or anthropomorphized nonhuman brand mascots (Garretson Folsom et al., 2013) exhibit the same sort of personality association transfer effects as human spokespeople. Thus, the fWHRs of spokes-characters may well influence perceptions of brand sincerity and ruggedness.

Consumer demographic traits are used to make judgements about a brand's personality, particularly to the extent that those demographic variables are perceived as aligned with specific personality traits. For instance, research finding that a male spokesperson makes a brand seem more aggressive, dominant, and daring, whereas a female spokesperson tilts the brand toward being perceived as fragile, graceful, and sensitive (e.g., Grohmann, 2009) depends on consumers perceiving men as aggressive, dominant, and daring, and women as fragile, graceful, and sensitive. Such perceptions exist to the extent that proscribed gender roles guide people to behave in such trait consistent manners. However, gender stereotypes are malleable (e.g., Dasgupta & Asgari, 2004), and the way people understand gender is changing (Hyde et al., 2019). Increasingly, managers may need to rely on additional spokesperson characteristics to signal desired brand traits such as ruggedness and sincerity. fWHR is such a characteristic. fWHR is a static feature and has implications for behavior (e.g., men with high fWHR act in more socially dominant ways; Geniole et al., 2014). Therefore, to bolster the effectiveness of employing *any* male as a spokesperson to convey masculine traits, managers may wish to consider using the "right" male spokesperson: one with high a fWHR.

### 7.3 | Limitations and future directions

We demonstrate one path of inference-making whereby consumers use spokesperson facial structure to infer brand personality. However, prior research shows that these inferences occur in various directions (Arsena et al., 2014; Grohmann, 2009). For example, Arsena and colleagues (2014) showed that a brand's personality can transfer to an endorser, whereas J. L. Ang and colleagues (2007) demonstrated that an endorser's personality can transfer to the brand. Our effect is more in line with the latter example in that a spokesperson's appearance influences how people perceive the brand. Future research should explore what factors determine when and how the spokesperson will influence

the brand's perceived personality and when and how the brand's personality will transfer to the spokesperson. This would be fruitful both in terms of theory development and managerial implications.

We employed only male faces as stimuli for our spokespeople. This design consideration was intentional to hold as many aspects of the endorsers constant to have a tighter manipulation of fWHR, and because most research linking fWHR to judgments of aggression and dominance has relied on male targets. However, brands frequently employ both male and female endorsers. Future research should consider how structural components of both male and female product endorser's faces, such as fWHR, influence brand personality. One possibility is that high fWHR signals ruggedness and low fWHR signals sincerity regardless of endorser gender. Indeed, recent work demonstrates that some fWHR-based person judgments generalize across target sex (Deska & Hugenberg, 2018; Deska et al., 2018). Yet, it may also be possible that sex interacts with spokesperson fWHR differently depending on the product or brand being endorsed. For instance, a male spokesperson with a high fWHR may be more effective when endorsing a rugged brand (similar to Study 3) and a female spokesperson with a low fWHR may be more effective when endorsing a sincere brand (similar to Study 4).

Finally, the current work focused narrowly on two of Aaker's (1997) brand personality: ruggedness and sincerity. There was good theoretical reason to focus on those dimensions as they are the most directly related to the person judgments associate with high and low fWHR. However, given that research on fWHR is relatively limited, it is an open question whether and how spokesperson fWHR might affect the other brand personality dimensions of excitement, competence, and sophistication. To provide an initial, exploratory test of this, we conducted one supplemental study. Participants in this study were 52 MTurk workers ( $M_{age} = 34.10$ ,  $SD = 10.65$ ; 21.2% female). Similar to Study 1, participants rated 10 high-fWHR faces and 10 low-fWHR faces on how effective they believed the depicted person would be as a spokesperson for sincere, exciting, competent, sophisticated, and rugged brands. Importantly, the results of this study replicated the primary findings of the current paper: perceivers believed that high fWHR targets would be more effective spokespersons for rugged brands than low fWHR targets ( $p < 0.001$ ,  $d = 0.78$ ) and that low fWHR targets would be more effective spokespersons for sincere brands than high fWHR targets ( $p = 0.001$ ,  $d = 0.49$ ). Interestingly, perceivers also believed that low fWHR targets would be better spokespersons for exciting, ( $p = 0.005$ ,  $d = 0.41$ ) sophisticated, ( $p = 0.001$ ,  $d = 0.51$ ) and competent brands ( $p = 0.050$ ,  $d = 0.28$ ; see S1 for complete study results). We caution interpretation of these exploratory findings because their relationships were not predicted *a priori*, but suggest they could serve as the basis for future research. Regardless, more work is needed to fully understand the relationship between spokesperson fWHR and judgments of brand personality (Table 1).

TABLE 1 A summary of key works cited organized by theme.

Themes	Authors	Setting	Key variables	Key findings
Endorser personality	Miller and Allen (2012)	Images of female celebrities paired with the Gap retail brand.	Celebrity meaning Brand meaning (e.g., trashy, cheap, controversial)	Endorser meaning transfers to brand meaning beliefs.
	L. Ang et al. (2007)	Print ads for watch brands Swatch and Breitling featuring male celebrity endorsers.	Brand personality (e.g., tough, masculine, charming, upperclass, successful, technical, daring).	Endorser personality traits such as being honest, daring, and exciting transfer to brand personality judgments.
	Mishra et al. (2015)	Print ads for Levi's and Nokia featuring female celebrity endorsers.	Brand image Celebrity image Celebrity-brand image congruence	Celebrity-brand image congruence (mitigates) increases ad liking and purchase intentions.
	Roy and Jain (2017)	Imagined cola endorsements featuring the respondent's favorite celebrity.	Brand image Celebrity image Celebrity-brand image fit.	Endorser (lack of) fit with brand personality (mitigates) increases personality transfer from celebrity to brand.
	Arora et al. (2021)	Imagined fashion brand (Manyavar) endorsement by a male celebrity spokesperson.	Brand personality (Aaker's 5 dimensions) Celebrity personality Brand-celebrity personality congruence.	Celebrity-brand personality congruence (mitigates) increases brand reputation and purchase intentions.
Endorser demographics	Debevec and Iyer (1986)	Mock radio ads for beer, toothpaste, and dishwashing liquid voiced by male/female spokesperson.	Endorser gender Product gender	Stereotypically female (male) products are perceived as more masculine (feminine) when paired with a male (female) voice spokesperson.
	Grohmann (2009)	Print ads for a vitamin brand featuring male or female noncelebrity endorsers.	Feminine brand personality Masculine brand personality	A female (male) endorser heightens perceptions of brand femininity (masculinity)
	Huber et al. (2013)	Print ads for Mercedes featuring noncelebrity male endorsers	Endorser age Brand age	An older (younger) endorser is associated with perceptions that the endorsed brand is older (younger).
Endorser physical characteristics	M. Kamins (1990)	Print ads for home computers (WYSE) and automobile (Sterling) featuring an unattractive or attractive celebrity endorser.	Endorser attractiveness	Use of an attractive model (significantly enhanced ad liking for an attractiveness-related good but did not affect ad liking for a good not related to attractiveness).
	Bower and Landreth (2001)	Print ads for earrings, lipstick, acne cover, and acne treatment (Study 1) and for perfume and dandruff shampoo (Study 2) featuring more/less attractive noncelebrity spokespeople	Endorser attractiveness Problem-solving products Enhancing products	Use of highly attractive spokespeople in ads increases product evaluations for enhancing but not problem-solving beauty products; an effect mediated by perceived spokesperson expertise.
	Lynch and Schuler (1994)	Photos of (Study 1) and ads featuring (Study 2) a noncelebrity male endorser with different levels of masculinity	Endorser masculinity Male-targeted products Female-targeted products	More (less) muscular men are perceived as more (less) knowledgeable about male-targeted products. Male masculinity did not affect perceived spokesperson knowledge of female-targeted products. Ads with a more muscular endorser increased perceived brand durability.

(Continues)

TABLE 1 (Continued)

Themes	Authors	Setting	Key variables	Key findings
Noncelebrity faces in ads for beer, restaurant, job search agent, cologne, coffee, computer, hotel, jeans, SUV, sports shoes, camcorder, and car dealer	Xiao and Ding (2014)	Noncelebrity faces in ads for beer, restaurant, job search agent, cologne, coffee, computer, hotel, jeans, SUV, sports shoes, camcorder, and car dealer	Facial structure Eigenface	The characteristics of an endorser's facial structure affects brand judgments such that high "fit" between and facial features and product category characteristics increases ad liking, brand liking, and purchase intentions.
College students self-reported aggressive behavior (Study 1). Penalty minutes accrued by hockey players (Studies 2 and 3).	Carré and McCormick (2008)	College students self-reported aggressive behavior (Study 1). Penalty minutes accrued by hockey players (Studies 2 and 3).	fWHR Perceiver gender	fWHR is positively related to self-reported aggressive behavior in males but not females. fWHR is positively related to penalty minutes accrued by hockey players.
Assessments of CEOs and control faces.	Alrajih and Ward (2014)	Assessments of CEOs and control faces.	fWHR CEO/control	Male CEOs have higher fWHRs than control males. CEO faces are associated with greater perceived dominance but not greater aggressiveness or less trustworthiness.
Behavior in a trust game (Study 1), perceptions of the trustworthiness of other potential players (Studies 2), and context-free perceptions of trustworthiness (Study 3).	Stirrat and Perrett (2010)	Behavior in a trust game (Study 1), perceptions of the trustworthiness of other potential players (Studies 2), and context-free perceptions of trustworthiness (Study 3).	fWHR Morphed fWHR Perceiver gender	Males, but not females, with higher fWHRs were more likely to exploit others. Higher fWHR is negatively related to perceived trustworthiness of potential game partners. Males with higher fWHR are perceived as less trustworthy, particularly by female participants.
Meta analysis of fWHR effects.	Geniole et al. (2015)	Context-free assessments of images of male faces with varying fWHR.	fWHR	Males, but not females, with higher fWHR engage in more threatening and dominating behaviors and are perceived as more masculine, threatening, and dominant.
Context-free assessments of images of male faces with varying fWHR.	Deska et al. (2018)	Context-free assessments of images of male faces with varying fWHR.	fWHR	Across four studies, fWHR is positively related to perceived masculinity and dominance and negatively related to perceived trustworthiness.
Non-celebrities with low/high fWHR considered as spokespeople for rugged/sincere brands (Study 1)	Current Work	Non-celebrities with low/high fWHR considered as spokespeople for rugged/sincere brands (Study 1)	fWHR Brand ruggedness Brand sincerity	High (low) fWHR spokespersons are associated with heightened perceptions of brand ruggedness (sincerity).
Noncelebrity endorsers with low/high fWHR in print ads for soup (Study 2), bourbon (Study 3) and summer camps (Study 4)	Effects of spokesperson fWHR on brand personality	Noncelebrity endorsers with low/high fWHR in print ads for soup (Study 2), bourbon (Study 3) and summer camps (Study 4)	fWHR	High (low) fWHR spokespersons are more effective for rugged (sincere) brands leading to more positive ad evaluations, greater brand liking, and higher purchase intentions.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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