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# Everybody loves beauty? The moderated effect of body attractiveness among young Koreans

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## Abstract

Physical attractiveness affects people's lives in numerous ways. This study examined the effect of a woman's body attractiveness on favorability perception based on the 'beauty-is-good' stereotype in the context of South Korea. Body attractiveness was operationalized using tallness in Study 1 and slimness in Study 2. The two studies tested the effect of a woman's body attractiveness with the consideration of participants' gender and the dependence of participants' self-worth on their appearance. A general linear model with a 2 (target woman's bodily attractiveness: high vs. low)  $\times$  2 (participants' gender: female vs. male) design and participants' appearance-contingent self-worth as a continuous predictor was performed. Results of these studies indicated that participants' gender and appearance-contingent self-worth moderated the positive effect of body attractiveness on favorability perception; specifically, this effect was supported by men with high appearance-contingent self-worth and women with low appearance-contingent self-worth. Interestingly, women with high appearance-contingent self-worth showed opposite effect of body attractiveness on favorability perception in Study 2. These findings extend the effect of the beauty-is-good stereotype to bodily aspects and address the interaction between participants' gender and appearance-contingent self-worth. Discussions on tallness and slimness are provided.

**Keywords:** Appearance-contingent self-worth, Beauty-is-good stereotype, Body attractiveness, Gender, Slimness, Tallness

## Introduction

The 'beauty-is-good' stereotype is a strong and general phenomenon (Berscheid and Walster 1974; Dion et al. 1972). It refers to how other people's physical characteristics quickly lead people to form particular attitudes toward others in interpersonal relationships (Wheeler and Petty 2001). In particular, positive attitudes toward physically attractive people are homogeneous, potent, and firmly established across cultures (e.g., Spry et al. 2011). However, most previous studies on how physical attractiveness influences interpersonal perceptions have focused on facial attractiveness, with the effect of body attractiveness receiving less attention. Additionally, the findings from recent studies suggest that the positive effects of physical attractiveness are limited to opposite-sex targets (i.e., the opposite-sex pro-attractiveness bias)—that is, good looks might not always be beneficial for same-sex targets due to intrasexual competition (Agthe and Spörrle 2009;

Agthe et al. 2008, 2010; Li and Zhou 2014; Luxen and van de Vijver 2006; Maner et al. 2007, 2009).

Women tend to negatively evaluate physically attractive women (Agthe et al. 2008) and engage in upward comparison (Agthe et al. 2014). However, Agthe et al. (2011) found that the derogation of attractive same-sex targets did not emerge among people with high self-esteem. Appearance contingencies of self-worth (ACSW), which refers to self-esteem that is dependent on one's appearance or how one looks, serves an important self-regulatory role because people seek to protect, maintain, and enhance their self-esteem (Baumeister 1998). Presumably, only those who have self-worth on appearance would be threatened by comparisons with physically attractive persons (Crocker and Wolfe 2001). Based on previous studies, we examined how people with appearance-contingent self-worth evaluate a woman depending on her bodily features (tallness and slimness) and whether their ACSW and gender moderate the evaluation. This study extends the boundary of the effect of physical attractiveness to specific bodily aspects, as the body also likely contributes to perceptions of overall attractiveness, e.g., an unattractive body can significantly reduce overall attractiveness ratings for people with highly attractive faces (Alicke et al. 1986).

## Literature review

### Physical attractiveness in the South Korean context

In recent years, the Korean wave—a new pattern of cultural flow referring to the growing worldwide popularity of Korean media content such as dramas—has led the South Korean media to commercialize the physical attractiveness of Korean celebrities known as *Hallyu* stars (Jeon and Yoon 2005). It affected the setting of unrealistic beauty standards among young people in South Korea (e.g., Wang 2015). Advertisement on cosmetics and facial beauty products are more often found in fashion magazines in South Korea than those in the United States (Jung and Lee 2009) as the evidence of South Koreans' strong interest in physical attractiveness. While facial attractiveness is often pursued through plastic surgery among South Koreans, acquiring body attractiveness through surgery is still limited; they have yet to become common owing to its higher risk (e.g., Chae 2015). Increasingly, Koreans tend to value body attractiveness higher than facial attractiveness that can be altered by surgery. One's body condition critically determines judgments of physical attractiveness in South Korea and can influence young people's self-esteem and interpersonal and romantic relationships (Lee and Park 2013; Park and Choi 2008). Youth in South Korea tend to consider themselves as fatter than their actual body shape, which lowered the body satisfaction (Kim et al. 2009). In this context, the examination of the effect of bodily features on young Korean's perception is believed to be meaningful.

### Tallness

Dissatisfaction with height is more common than is concern about being overweight or facial attractiveness (Chen et al. 2006). It might be due to the characteristic of height that barely gives people the belief in body control, which may consequently deteriorate psychological and physical well-being (Lee 2004; McKinley and Hyde 1996). While slimness is often interpreted as a consequence of one's consistent appearance management,

tallness that hardly changes once the growth stops is viewed an affluent childhood with a well-balanced diet (Chu and Geary 2005; Jackson and Ervin 1992).

Most of the past studies examining height have focused on men. Men's height has been extensively studied because it has been advantageous for men in numerous areas of life, such as reproductive capacity (Mueller and Mazur 2001; Pawlowski et al. 2000), interpersonal relationships (Pawlowski and Koziel 2002), and leadership (e.g., McCann 2001). Men's height is considered crucial for women's potential mate selection, while women's height is considered less important for men (Yancey and Emerson 2014). Women rated a photographed man as more attractive when he was depicted as tall relative to an adjacent woman. By contrast, shorter women were more preferred as dates; they dated more frequently and were rated as more attractive than were taller women, regardless of the male subjects' heights (Sheppard and Strathman 1989).

Recent findings, however, have identified some positive attributes of women's tallness. The empirical research found that taller women are perceived as more intelligent and affluent (Chu and Geary 2005), and women of above-average height are more satisfied with their height (Lever et al. 2007). A recently conducted survey targeting South Koreans in their 20s and 30s revealed not only women's preference for tall men in a dating context but also men's favorability of women's tallness (Kwon 2018). In fact, it is not surprising that women wear high-heeled shoes to gain a few inches of height and that most of the world's finest fashion designers model a tall woman (Scotti 2015). However, little attention has given to women's tallness as a source of body attractiveness and how it affects perceptions in an interpersonal context.

### ***Slimness***

Although there are some exceptions (e.g., Furnham et al. 2002; Swami and Tovée 2005, 2006), slimness is consistently regarded as an essential contributor to attractiveness across cultures. The physical attractiveness of models on advertised products or brands has a positive effect on attitudes toward the product (Baker and Churchill 1977; Petroschius and Crocker 1989; Till and Busler 2000). However, people may experience significant discrepancies between one's actual and ideal selves when exposed to a thin-idealized model (Hargreaves and Tiggemann 2004; Jung et al. 2001). In fact, the exposure to an attractive woman negatively affects aspects of the self, including self-image and self-esteem, especially among females (Hargreaves and Tiggemann 2004; Jung and Lennon 2003; Richins 1991; Smeesters et al. 2010). Studies targeting Korean adolescence also found that an upward comparison with physically attractive others causes body image disturbance and dissatisfaction (Ku et al. 2011; Son 2009).

### **The moderating role of appearance-contingent self-worth and gender**

Contingencies of self-worth refer to what individuals think that they must do or be in order to have value and worth as a person. In other words, these feelings of self-worth are dependent on the approval of others or on social comparisons, which can influence motivation, cognition, and affect (Crocker and Wolfe 2001). Individuals' self-esteem is shaped depending on the success/failure of events within the domain on which they have based their self-worth (Crocker and Knight 2005). Events in a certain domain of life that may have a negative impact on the self will be viewed as a threat only to the

extent that one has invested self-worth in that domain (Park and Crocker 2008; Park and Maner 2009). These domains vary substantially (Crocker and Wolfe 2001; Deci and Ryan 2000; Tafari and Swann 2001).

Among the domains of contingent self-worth identified by Crocker and Wolfe (2001), ACSW is defined as self-esteem that is dependent on one's appearance or how one looks. ACSW reflects a concern about fulfilling or exceeding the standard of physical attractiveness that the individual believes is essential to feel good about oneself. People with high ACSW will feel more threatened by comparisons with physically attractive persons but may feel less threatened by comparisons with those who have a successful career. ACSW is negatively related to appearance self-esteem—namely, the extent to which individuals are satisfied with their physical appearance (Noser and Zeigler-Hill 2014). That is, as one's ACSW, the dependence on other's approval for one's appearance self-esteem, goes higher, the self-esteem about appearance actually lowers (Crocker and Luhtanen 2003).

Target self-relevance is an essential precondition of interpersonal comparison (e.g., Festinger 1954). As gender is a critical aspect of target similarity, it is a stronger facilitator of social comparison (Brown et al. 1992; Parks-Stamm et al. 2008). Brown et al. (1992) observed negative outcomes in upward comparisons with a target only when the target was of the same gender as the participant. The effects of upward comparison with a same-sex target become common during young adulthood and are predominantly limited to persons of one's own ethnicity (Agthe et al. 2016), as they are more similar and thus more comparable to oneself.

Women tend to engage in upward comparison with physically attractive women (Agthe et al. 2014). Women are known to be more sensitive to their own and others' appearances, and to consider slimness as vital to attractiveness (Fan et al. 2004; Feingold and Mazzella 1998; Puhl and Boland 2001). In fact, gender is known to affect individuals' contingencies of self-worth in general. Perhaps due to men's more independent and autonomous nature, their self-esteem tends to be contingent on fulfillment of goals while women's is derived from being sensitive to, connected to, and interdependent with others (Crocker et al. 2003; Josephs et al. 1992). Women are also more likely to report that their self-esteem is dependent on the social comparison (Schwalbe and Staples 1991). Men, compared to women, have a higher tendency to see themselves as superior to others, which is associated with higher self-esteem (Josephs et al. 1992).

### **Overview of the present research**

This study examined perceptions toward a woman with different levels of body attractiveness among the youth of South Korea. Study 1 addressed tallness, and Study 2 examined slimness as indicators of body attractiveness. We hypothesized that gender and ACSW would moderate the perceptions towards the target woman with an attractive (vs. less attractive) body. Specifically, we predicted that the effect of the body attractiveness of a target woman on favorability perceptions would be found only for men with high ACSW but not for those with low ACSW. Specifically, men with high ACSW will favor a woman with a body attractiveness consistent with the beauty-is-good stereotype (e.g., Agthe et al. 2008), but men with low ACSW would likely be unaffected by the woman's appearance when forming a general favorability perception. As for women's perceptions,

we expected that only low-ACSW women would be affected by the body attractiveness of a target woman, and this effect would be in line with the beauty-is-good stereotype. We assume that for women whose self-worth is not contingent on their appearance, the attractiveness of the other woman would not be threatening (Park and Crocker 2008) and thus might be a good source for their favorability evaluation. On the other hand, the positive effect of body attractiveness would not be observed among women with high-ACSW, because the same-sex comparison with an attractive target might induce negative feelings for such appearance-contingent women because of upward comparison. The reasoning is based on the notion that women are, in general, more conscious of their body image than are men (e.g., Pliner et al. 1990) and more likely to be evaluated in part based on physical appearance (Fredrickson and Roberts 1997).

## **Study 1**

### **Methods**

#### ***Participants***

One hundred and twenty-eight undergraduate students at a university in Seoul, South Korea participated in a lab experiment in exchange for a small monetary reward (42.2% male,  $M_{\text{age}} = 23.55 \pm 2.07$  years; age range 19–28 years). All participants' ethnic background was South Korean.

#### ***Procedure***

The experiment was conducted in a controlled laboratory environment. Each participant was assigned to a computer with a 24-in. monitor and completed an online questionnaire. Before viewing the stimulus, participants completed a modified version of the ACSW questionnaire (Crocker et al. 2003) in which participants responded to items on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The modified ACSW questionnaire has five items, which are as follows: (1) my self-esteem depends on whether I feel attractive; (2) my self-esteem is influenced by how attractive I think my face or facial features are; (3) my self-esteem is related to how I feel about the way my body looks; (4) my self-esteem is affected by how tall (or short) I am; (5) my self-esteem is influenced by my weight. Self-relevance should be increased by activating self-related thoughts; therefore, words referring to the self (i.e., I, me) were included among the ACSW items to facilitate subsequent social comparison by promoting cognition of external evaluative standards (Stapel and Tesser 2001). The items were averaged to obtain an ACSW index score. The internal consistency of these items was satisfactory (Cronbach's  $\alpha = .84$ ).

Participants were subsequently randomly assigned to a non-tall or a tall target condition. The average height of a South Korean woman is 162.54 cm (NCD Risk Factor Collaboration 2016); in the non-tall and tall target conditions the height of the woman presented as the stimulus was stated as 157.5 and 167.5 cm, respectively (i.e.  $\pm 5$  cm from the average height; these heights were used to avoid negative effects due to extreme tallness or shortness; the expression 'non-tall' was used instead of 'short' for the same reason). For both the conditions, first, a photo of a woman's face was presented (the photo was rated as attractive in a pretest; all participants responded to the same photo). We used a stimulus with sufficient facial attractiveness to prevent immobilization of

the threat of physical attractiveness through low facial attractiveness. In the pretest ( $N = 15$ ), the target woman's facial attractiveness was rated 4.2 on a 5-point Likert scale, significantly exceeding the scale's median score of 3 ( $t(14) = 6.00, p < .001$ ). The target woman was introduced as an ordinary female college student in her early 20 s—this matched the participants' status and age group and followed the assumption that people more readily compare themselves to similar others (Festinger 1954). The target woman's profile information (i.e., status as a college student, gender as female, and height information for the assigned condition) was provided along with the following statement: Here is a photo of an ordinary woman chosen as a consumer model by ABC advertisement agency. Height information was provided as a numerical value (non-tall condition: 157.5 cm, tall condition: 167.5 cm). Regarding each item of the target woman's profile information, participants rated their perception of attractiveness and similarity using a 7-point Likert scale (1 = very little, 7 = very much). Attractiveness ratings on body information were used as a manipulation check. Similarity questionnaires were included to encourage the participants to acknowledge that the stimulus resembled the participant in status but differed from male (vs. female) participants in gender; however, responses to these questionnaires were not included in subsequent analyses. Participants then evaluated their favorability perception towards the target woman using a 100-point slider, whereby participants moved the slider from 0 to 100 by dragging the handle. We expected that the use of a discrepant scale would reduce the carryover effect and differentiate the dependent variable from other items. Participants then answered demographic questions, received a small monetary reward, and were dismissed.

## Results

### Manipulation check

Manipulations of perceived body attractiveness were successful, indicating that above-average height (i.e. tallness) was perceived as more attractive than below-average height (i.e. non-tallness) (tall:  $M = 5.14, SD = 1.15$ ; non-tall:  $M = 3.53, SD = 1.10$ ;  $t(126) = -8.06, p < .001$ ).

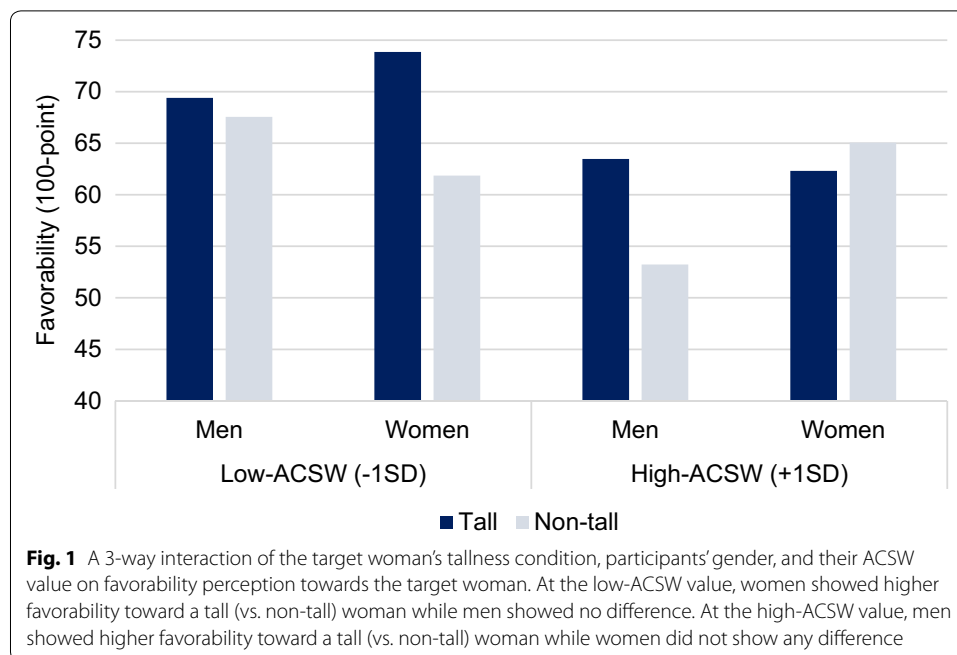
### Favorability perception

To explore the interaction between gender and body attractiveness, we conducted a 2 (target woman's tallness: tall vs. non-tall)  $\times$  2 (participants' gender: female vs. male) between-subjects analysis of variance (ANOVA) on favorability. The results revealed neither a significant main effect of tallness ( $F(1,124) = 3.15, p = .078$ ) nor one of gender ( $F(1,124) = .29, p = .865$ ). Similarly, the interaction effect was non-significant ( $F(1,124) = .331, p = .566$ ). Table 1 shows the results of the pairwise comparisons.

**Table 1** Pairwise comparisons on respondents' favorability in dependence on respondents' gender or tallness

Factor	Men	Women	
Tall	68.97 (2.88)	66.85 (2.49)	$F(1,124) = .308, p = .580$
Non-tall	62.29 (3.22)	63.44 (2.70)	$F(1,124) = .075, p = .785$
	$F(1,124) = 2.38, p = .125$	$F(1,124) = .858, p = .356$	

Standard errors are in parentheses



To account for participants' ACSW, we conducted a general linear model using a 2 (target woman's tallness: tall vs. non-tall)  $\times$  2 (participants' gender: female vs. male) design and ACSW as a continuous predictor, with favorability as the outcome variable. The results revealed a significant main effect of ACSW,  $F(1,120) = 4.53$ ,  $p = .035$ , and an interaction effect of the target woman's tallness and participants' gender,  $F(1,120) = 5.40$ ,  $p = .022$ . No other significant main or two-way interaction effects were found. The three-way interaction was significant,  $F(1,120) = 6.44$ ,  $p = .012$ , suggesting that the significant two-way interaction of the target woman's tallness and participants' gender was moderated by participants' ACSW.

We further clarified this three-way interaction by examining the two-way interaction of participants' gender and target woman's tallness at two different ACSW values—namely,  $\pm 1$  SD from the mean ACSW ( $M = 5.15$ ,  $SD = 1.20$ ). At  $-1$  SD from the mean (hereafter, low ACSW), there was no effect of tallness condition on men's favorability response ( $p = .733$ ) but there was one for women's responses,  $F(1,120) = 4.69$ ,  $p = .032$ . Women expressed higher favorability toward a tall target woman ( $M = 73.86$ ,  $SE = 3.95$ ) than a non-tall target woman ( $M = 61.87$ ,  $SE = 3.88$ ). At  $+1$  SD from the mean ACSW score (hereafter, high ACSW), a simple effect of tallness condition on favorability was found only for men's responses,  $F(1,120) = 6.21$ ,  $p = .014$ . Men with showed higher favorability toward a tall target woman ( $M = 68.48$ ,  $SE = 4.21$ ) than a non-tall target woman ( $M = 53.24$ ,  $SE = 4.43$ ), supporting the hypothesized direction. The negative effect of tallness condition on women's responses was not supported ( $p = .588$ ). Figure 1 illustrates the results.

## Discussion

Study 1 investigated how the effect of the tallness condition on participants' favorability evaluations varied according to participants' gender and ACSW. More specifically, we



examined the effect of the tall (vs. non-tall) condition on favorability evaluation according to participants' gender at both low-ACSW and high-ACSW points. The results showed that there was a positive effect of the tallness of a target woman on the favorability perceptions of high-ACSW men and low-ACSW women. In contrast, no significant difference was found in low-ACSW men and high-ACSW women according to the tallness condition.

Many researchers, including Agthe et al. (2011), have affirmed that physical attractiveness positively affects perceptions of the opposite sex. However, our findings did not support this effect before the consideration of participants' ACSW. We reasoned that the application of tallness as an index of physical attractiveness might not be strong enough to induce the attractiveness effect found in previous studies, which mostly focused on facial attractiveness. As illuminating the moderating effect of ACSW, the results support the previous findings that physical attractiveness positively influences perceptions of the opposite sex (e.g., Agthe and Spörrle 2009; Agthe et al. 2008, 2010). Findings suggest that the pro-attractiveness bias of opposite-sex counterparts (in this case, men) might not always occur, especially for those whose self-worth is not contingent on their appearance. In turn, the pro-attractiveness bias of the same-sex counterparts (i.e., women) was observed for those with low ACSW. This implies that women's (in comparison with men's) general interest in other women's body attractiveness might positively influence their favorability perceptions.

According to previous studies, events in one's contingency area should influence one's responses to the extent that one has invested self-worth in that domain (in this study, appearance) (Crocker and Wolfe 2001). We found, consistent with prior research, the more men's self-worth was contingent on their appearance (i.e., a higher ACSW), the greater the difference in favorability perceptions between the tallness conditions, which is in line with the beauty-is-good stereotype. However, the results for high-ACSW women did not show the body attractiveness effect on their perception of the target woman, resulting in non-significant differences according to body attractiveness condition. We assume that this is due to their underlying motivation to cope with the negative affect experienced by exposure to a tall (i.e., attractive) woman. This is consistent with the findings of Park and Crocker (2008): namely, people whose self-worth is contingent on others' approval experienced negative affect and exhibited coping behaviors after receiving negative feedback from others.

The results of this study provide crucial information regarding the moderation of the beauty-is-good stereotype by examining the effect of body attractiveness in terms of height on favorability perception. However, it is difficult to say that tallness has been established as a clear indicator of physical attractiveness. When ACSW was not considered (as seen in the two-way interaction of body attractiveness and participants' gender), tallness per se did not affect men's favorability perceptions, despite previous findings of a pro-attractiveness bias for the opposite sex. Thus, compared to tallness, slimness might have a stronger effect on attractiveness bias. Study 2 replicated Study 1's mechanism using slimness to test the robustness of Study 1's results.



## Study 2

By examining slimness as an indicator of attractiveness, Study 2 extended Study 1's support for the proposition that ACSW and gender moderate the effect of body attractiveness on favorability perceptions. Furthermore, by using a different operationalization of attractiveness, we can improve the generalizability of the findings of Study 1.

## Methods

### Participants

Participants were 160 South Korean respondents recruited through an online survey company in South Korea (48.1% male,  $M_{\text{age}} = 22.94 \pm 2.06$  years; age range 20–29 years). The experiment was conducted using a mobile platform provided by the online survey company. Three participants were excluded due to incompleteness in their data; thus, the responses of 157 participants were analyzed.

### Procedure

Similar to Study 1, participants first responded to the five ACSW items using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The items were averaged to obtain an ACSW index score, and the internal consistency reliability was satisfactory (Cronbach's  $\alpha = .86$ ).

In the main experiment, participants were randomly assigned to one of the two slimness conditions (slimmer than average vs. less slim than average). Corresponding to Study 1, participants in each condition viewed a photo of a woman (face only) and received corresponding profile information (i.e., status and gender: undergraduate and female, respectively) and slimness information. Slimness information was provided as a body mass index value (BMI). To better understand the BMI values, participants were informed that BMI reflects the human body's overall fatness or slimness, is commonly used to diagnose obesity (Seock and Merritt 2013), and typically ranges from 18.5 to 24.9 (NIH n.d.). Within the normal ranges to avoid any effect of extreme values, the two values (i.e., 18.5 and 24.9) were used to represent the slim and non-slim conditions. Participants evaluated each item of profile information's self-similarity and attractiveness using a 7-point Likert scale (1 = not much, 7 = very much). Corresponding with Study 1, items except for attractiveness ratings and BMI information were fillers. After evaluating the favorability perception towards the target woman using a 100-point sliding scale, participants then answered demographic questions, received a small monetary reward, and were dismissed.

## Results

### Manipulation check

The manipulation check indicated that participants evaluated the target woman as more attractive in the slim condition,  $t(155) = -5.59$ ,  $p < .001$  (slim:  $M = 4.49$ ,  $SD = 1.16$ ; non-slim:  $M = 3.45$ ,  $SD = 1.18$ ).

### Favorability perception

Consistent with Study 1, a two-way between-subjects ANOVA with body attractiveness condition (target woman's slimness condition: slim vs. non-slim) and gender as factors

**Table 2** Pairwise comparisons on respondents' favorability in dependence on respondents' gender or slimness

Factor	Men	Women	
Slim	70.05 (2.64)	61.12 (2.60)	$F(1,153) = 5.78, p = .017$
Non-slim	58.34 (2.82)	62.41 (2.60)	$F(1,153) = 1.12, p = .291$
	$F(1,153) = 9.17, p = .003$	$F(1,153) = .123, p = .726$	

Standard errors are in parentheses

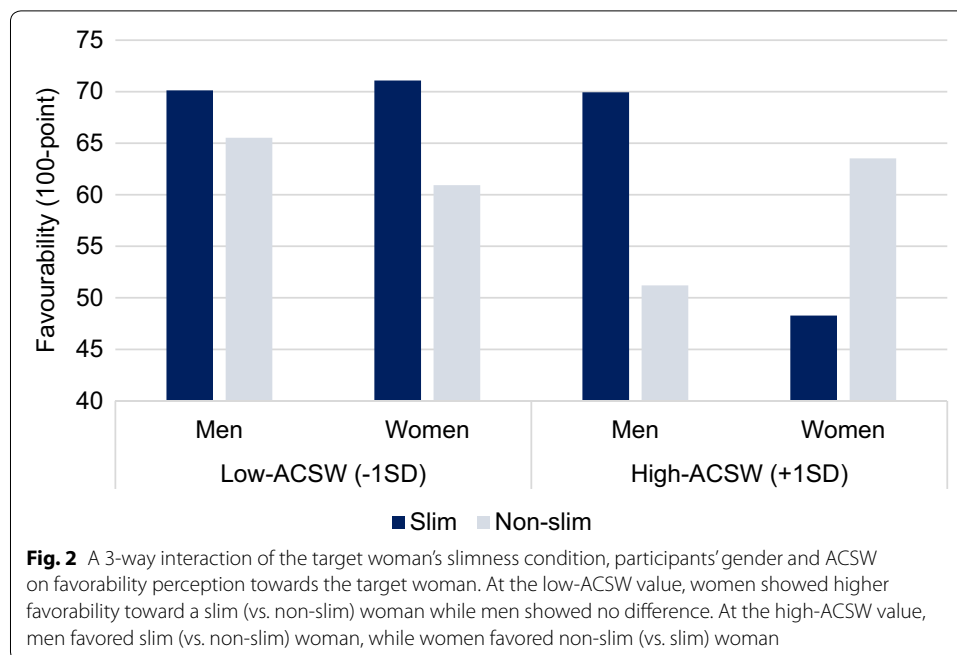
was conducted on favorability to determine the interaction effect of these two factors without considering ACSW. The results indicated a marginally significant main effect of slimness,  $F(1,153) = 3.80, p = .053$  and a significant interaction effect,  $F(1,153) = 5.92, p = .016$ , but no main effect of gender,  $F(1,153) < 1, p = .365$ . Further analyses of the interactions indicated that men gave more favorable ratings to the target woman in the slim condition ( $M = 70.05, SE = 2.64$ ) than in the non-slim condition ( $M = 58.34, SE = 2.82; F(1,153) = 9.17, p = .003$ ), while women did not differ significantly in their favorability ratings between the two conditions ( $p = .726$ ). Table 2 shows the results of the pairwise comparisons.

To explore the effect of the ACSW on the interaction between body attractiveness and gender, we conducted a generalized linear model on favorability, using a 2 (target woman's slimness condition: slim vs. non-slim)  $\times$  2 (participants' gender: female vs. male) design with ACSW as a continuous predictor. The results revealed a significant main effect of ACSW,  $F(1,149) = 12.34, p = .001$ . As shown in the prior analysis, there was a two-way interaction effect,  $F(1,149) = 7.13, p = .013$ , along with a marginally significant interaction effect of gender in the slimness condition,  $F(1,149) = 2.98, p = .086$ . As expected, the three-way interaction was significant,  $F(1,149) = 16.02, p < .001$ , suggesting that the significant two-way interaction between the target woman's slimness and participants' gender was moderated by participants' ACSW.

To interpret the three-way interaction, we examined the two-way interaction of gender and slimness condition at  $\pm 1$  SD from the mean of ACSW ( $M = 3.48, SD = 1.37$ ). At  $-1$  SD (i.e. low ACSW), there was a significant effect of slimness condition on women's favorability perception,  $F(1,149) = 4.21, p = .042$ , while no effect was found on men's ( $p = .357$ ). Consistent with the results from Study 1, women with low ACSW showed higher favorability towards a woman with a slim body ( $M = 71.09, SE = 3.13$ ) than to one with a non-slim body ( $M = 60.94, SE = 3.83$ ). At  $+1$  SD (i.e. high ACSW), there was a significant simple effect of slimness condition on men's favorability perceptions,  $F(1,149) = 14.18, p < .001$ , indicating that they favored the target woman in the slim condition ( $M = 69.96, SE = 3.39$ ) more than they did the woman in the non-slim condition ( $M = 51.15, SE = 3.66$ ), as hypothesized. Interestingly, we found that high-ACSW women's favorability towards a non-slim woman was significantly higher ( $M = 63.54, SE = 3.31$ ) than that towards a slim woman ( $M = 48.20, SE = 3.54; F(1,149) = 9.99, p = .002$ ). Figure 2 illustrates the results.

## Discussion

Study 2 examined the effect of slimness on favorability perception. Parallel to the findings of Study 1, participants' gender and ACSW moderated the association between



body attractiveness and favorability perception. In particular, the results revealed a moderating effect of gender on the favorability perception of a slim (vs. a non-slim) woman without considering participants' ACSW—men favored a slim woman more than a non-slim woman, while women showed no difference in their favorability perception according to a woman's slimness. It is consistent with previous findings on the attractiveness bias for opposite-sex evaluators (e.g., Agthe et al. 2010).

In Study 1, we found an effect of body attractiveness on favorability perception in the low-ACSW women, and Study 2 confirmed that women with low ACSW favor a slim (vs. non-slim) woman, while men with low ACSW did not show any difference. While low-ACSW women and high-ACSW men favored a slim (vs. non-slim) woman, in line with the beauty-is-good bias, the responses of high-ACSW women showed an effect in the opposite direction of this bias. More specifically, while high-ACSW men perceived a slim woman in a more favorable way than a non-slim woman, supporting the pro-attractiveness bias of the opposite sex (e.g., Agthe and Spörrle 2009), high-ACSW women perceived a non-slim woman more favorably than a slim woman. We surmise that this opposite direction acts as a sort of coping mechanism. This reasoning infers that people, when threatened by an external source on which their self-worth is highly contingent, experience negative feelings and are motivated to engage in behaviors to cope with these feelings (Park and Crocker 2008). In other words, women with high ACSW might experience negative feelings due to a sense of threat from the slim woman and thus rated that woman less favorably than the non-slim woman.

### General discussion and conclusion

The results of Studies 1 and 2 together indicate that participants' gender and ACSW moderated the effect of body attractiveness on favorability perception of a target woman. Specifically, the findings confirmed that body attractiveness generated a beauty-is-good

effect for favorability perceptions, with evaluators' gender and ACSW as boundary conditions. The positive effect of body attractiveness (i.e., tallness or slimness) on favorability perception was found only among men with high-ACSW and women with low-ACSW. Across the two studies, we found no effect of a woman's body attractiveness on low-ACSW men's favorability perception. However, high-ACSW women, when exposed to a slim woman, displayed higher favorability toward a non-slim woman in Study 2 while their favorability perceptions did not differ according to tallness condition in Study 1.

These different results for high-ACSW women might derive from the differing effects of body attractiveness between tallness and slimness. Slimness, as a more traditional source of attractiveness, might have a stronger influence on high-ACSW women's perceptions reversing the beauty-is-good bias. By contrast, the tallness effect may not be strong enough to flip the beauty-is-good bias of high-ACSW women but reached a null effect by offsetting the positive effect of body attractiveness (tallness). On the other hand, the findings that low-ACSW women favored bodily attractive woman in both Study 1 and 2 suggest that women, regardless of their contingencies of self-worth on appearance, by nature, are interested in other's appearances compared to men are (e.g., Agthe et al. 2014). Men appear to be affected by the body attractiveness of a woman only when they have high ACSW. Indeed, the findings among men with low ACSW suggest that when men are not concerned about their own appearance, they might be equally unconcerned about the appearance of women.

The differing nature of slimness and tallness was also evident in comparing the two-way interaction effect of body attractiveness condition and participants' gender on favorability across the two studies. In Study 2, we observed a significant main effect of slimness, thus supporting the beauty-is-good bias, and an interaction effect explaining the pro-attractiveness bias of the opposite sex (Agthe et al. 2011). In Study 1, however, there was no effect of body attractiveness or an interaction effect between tallness condition and participants' gender. Therefore, when ACSW was not considered, the results from the tallness condition per se did not support the beauty-is-good bias, not even when interacting with participants' gender. We assume that this is due to the difference in the belief in body control between slimness and tallness. When believing there is little controllability of one's body shape like tallness, people may set somewhat a realistic standard and have less vulnerability to an external standard (Lee 2004). Beyond the slimness effect, a more comprehensive investigation is required to understand the precise role of tallness as a source of physical attractiveness.

The present study contributes to the literature on physical attractiveness and social interaction by expanding the conceptualization of physical attractiveness to include tallness and slimness. This study is distinct from previous studies in two main respects: (1) the findings of previous studies on the effect of facial attractiveness were replicated with body attractiveness, and (2) the beauty-is-good bias was further elaborated by our considering the role of individuals' ACSW. Therefore, the findings of this study not only support the beauty-is-good bias of body attractiveness but also suggest boundary conditions for this bias (namely, evaluators' gender and individual differences in ACSW).

Furthermore, it is timely and significant to investigate the effects of tallness and slimness on interpersonal perceptions in the context of South Korea, as a public appreciation of the attractiveness of tall and slim women is growing. Furthermore, the average

height is also increasing in South Korea (Doucleff 2016). Unlike in Western contexts, where body attractiveness comprises multiple diverse components (including the size of body features and proportions such as a waist-to-hip ratio or leg-to-body ratio), body attractiveness for South Korean women is mostly determined by numerical body measurements such as weight and height (Kweon et al. 2014). For South Korean women, compared to facial attractiveness (which can be enhanced using plastic surgery), tallness and slimness may be considered more prestigious traits, implying genetic superiority or high socioeconomic status that enables one to have a nutritionally balanced diet, engage in proper exercise, and have sufficient leisure time. In this context, understanding women's psychology in relation to interpreting other women's body attractiveness provides insight into why beauty standards among South Korean youth are becoming increasingly severe, resulting in strict appearance management. While other people's tallness or slimness can be viewed as attractive, overall evaluations of that person, such as favorability, appear to be made out of an interaction of diverse characteristics (i.e., ACSW and gender). In other words, our results assert that highly attractive people might not always be favored.

### **Limitations and suggestions for future research**

This study has the following limitations, which constitute opportunities for future research. First, there are some possibilities to extend the current findings when designing future experiments. We investigated how people perceive and interpret a woman's body attractiveness. The results would have been more valid if we controlled participants' height and weight as covariates. Future research will be more fruitful if participants' body indices are examined to see if there is any effect on dependent variables. The finding that men with low ACSW did not show any difference according to body attractiveness condition is consistent with the findings of previous studies showing that men's self-esteem is less dependent on social comparisons (Crocker et al. 2003; Josephs et al. 1992; Schwalbe and Staples 1991). However, future research might extend this investigation to how men respond to the same-sex counterpart, an attractive man. The present study focused on body aspects while controlling for facial attractiveness. Because facial attractiveness may be an equally strong or a stronger predictor of overall physical attractiveness compared to the body (Perkins and Lerner 1995), it will be meaningful to address the relative effects of facial and body attractiveness. Specifically, future research should determine whether facial and body attractiveness have independent main effects and if they interact to influence interpersonal judgments.

Second, to explore the underlying mechanism of the opposite effect of body attractiveness among high-ACSW women, it would be better to directly measure the degree of negative feeling (e.g., appearance threat) experienced by high-ACSW women when they view a woman with a highly attractive body. Our studies hint that high-ACSW women might have experienced negative feeling in that they rated a bodily attractive woman as not favorably despite perceiving them as attractive in the manipulation check. By including potential mediating variables of coping behaviors such as desires to appear physically attractive to others (Park and Crocker 2008), future research can examine the underlying mechanism of the opposite direction effect of body attractiveness among appearance-contingent women.

Finally, culture may moderate associations between physical factors and perceptions of body attractiveness, and its effect on favorability perception, particularly regarding tallness. East Asians, particularly South Koreans, have increasingly adopted Western standards of physical appearance—the average height reported to be ideal for women is 165–167 cm (Digital News Team 2011); however, Korean women's actual average height is 162.54 cm (NCD Risk Factor Collaboration 2016). In contrast, shortness in women is considered attractive in Japanese culture. Indeed, Japanese women are shorter on average than are South Korean women (Kinsella 1995). Therefore, future research should test if cultural context moderates the association between physical characteristics and perceptions of physical attractiveness. In addition, as Wheeler and Kim (1997) have found, culture is expected to moderate the effect of physical attractiveness on specific dependent variables such as potency (valued in North America) and integrity (valued in Korea). Anderson et al. (2008) have also drawn attention to cultural differences in the association between physical attractiveness and evaluations. Future research should provide a deepened understanding of the effect of body attractiveness on a variety of evaluations in a cross-cultural context.

#### Authors' contributions

EB designed and conducted the experiments and drafted the manuscript. HJC built a conceptual framework and led organizing the literature section. Both authors read and approved the final manuscript.

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#### Competing interests

The authors declare that they have no competing interests.

#### Ethics approval and consent to participate

Not applicable.

#### Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Received: 15 October 2017 Accepted: 14 February 2018

Published online: 30 July 2018

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