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The deficit bias: Candidate gender differences in the relative importance of facial stereotypic qualities to leadership hiring

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Recent findings highlight two facets of the two fundamental stereotype content dimensions of agency (i.e., 'dominance' and 'competence') and communality (i.e., 'morality' and 'sociability'; e.g., Abele et al., 2016) with implications for understanding gender inequality in the workplace (e.g., Prati et al., 2019). Extending this research and contributing to the facial first impressions literature, we examined how these facets of agency and communality when inferred from White men's and women's faces, along with attractiveness, influence their leadership suitability. In three studies in the United Kingdom (total $N = 424$), using student and working samples and two managerial descriptions, we found an unexpected pattern of results, supported by an internal meta-analysis: attractiveness and competence were the most important predictors of hirability for all candidates. For women, dominance was the next most important predictor; for men, morality and sociability were more important than dominance. Moreover, morality and sociability were more important in evaluating men than women, while dominance was more important in evaluating women than men. Findings are discussed in terms of a 'deficit bias', whereby the qualities women and men are considered to lack – dominance for women, morality, and sociability for men – may be given more weight when evaluating their leadership suitability.

Women's representation in leadership has increased, but they remain in a minority. In Europe's major publicly listed organizations, women occupy 37% of managerial positions and just 18% of senior executive positions (Eurostat, 2020; for world statistics, see Mercer, 2020). Multiple factors contribute to the gender gap in leadership (Barreto et al., 2009; Eagly & Carli, 2007), but one prominent explanation is the impact of gender stereotypes on women's and men's perceived leadership suitability. Women are stereotyped as more communal (e.g., caring, honest) and men as more agentic (e.g., assertive, intelligent; Cuddy, Fiske, & Glick, 2008; Eagly & Karau, 2002). As leaders are typically stereotyped as

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agentic, not communal (Bongiorno et al., 2021; Koenig, Eagly, Mitchell, & Ristikari, 2011; Schein, 1973, 2001), gender stereotypes can disadvantage women for leadership selection, as they are less likely than men to be seen to have the agentic traits leaders require (Eagly & Karau, 2002; Heilman, 1983, 2001).

Gender stereotypes are typically considered with reference to agency and communality as two fundamental stereotype content dimensions (Abele & Wojciszke, 2014; Fiske, Cuddy, & Glick, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Leach, Bilali, & Pagliaro, 2014).[1] However, recent research suggests that to understand how gender stereotypes contribute to workplace discrimination, it would be beneficial to consider the impact of distinct facets of each fundamental dimension (e.g., Hentschel, Heilman, & Peus, 2019). This is because the array of facets that comprise each dimension (e.g., sociability and morality as facets of communality) can have very different meanings (e.g., Abele et al., 2016) and evaluative consequences for men and women in the workplace (Menegatti et al., 2021; Moscatelli, Menegatti, Ellemers, Mariani, & Rubini, 2020; Prati et al., 2019).

In addition to gender stereotypes, hiring processes can be biased by appearance (Hosoda, Stone-Romero, & Coats, 2003; Little & Roberts, 2012; Lowman, Harms, & Mills, 2019), which is becoming more relevant as selection processes involve human resource (HR) professionals searching for applicants' profiles online (e.g., Facebook, Linkedin; Dutta, 2010; Woods, Ahmed, Nikolaou, Costa, & Anderson, 2020). Photograph searches are undertaken by HR to infer candidates' personality characteristics (Caers & Castelyns, 2011), and traits inferred from faces can affect leadership selection (e.g., Rule & Ambady, 2008). However, very little research has examined whether traits inferred from faces differentially influence evaluations of women and men (Oh, Dotsch, Porter, & Todorov, 2020; Todorov, Olivola, Dotsch, & Mende-Siedlecki, 2015).

The aim of the current research was to extend understandings of the impact of gender stereotypes in leadership selection, along with gender differences in facial first impressions. Building on advances in the literature establishing distinct facets of agency and communality, we considered how four gender-stereotypic qualities inferred from women and men candidates' faces: competence and dominance as facets of agency (e.g., Abele et al., 2016), and sociability and morality as facets of communality (e.g., Leach, Ellemers, & Barreto, 2007), affect their perceived suitability for leadership.

Gender stereotypes and inequality

Research has highlighted the importance of distinguishing facets of communality, showing that morality (e.g., sincere, trustworthy) is more important than sociability (e.g., friendly, kind) in forming global impressions about others (Brambilla, Rusconi, Sacchi, & Cherubini, 2011; for a review, see Brambilla & Leach, 2014; Brambilla, Sacchi, Rusconi, & Goodwin, 2021; also see Leach et al., 2014). Likewise, by considering competence and dominance as different facets of agency (e.g., Abele, Ellemers, Fiske, Koch, & Yzerbyt, 2021; Abele et al., 2016; Carrier, Louvet, Chauvin, & Rohmer, 2014), temporal changes in gender stereotype content have been detected: Men are still likely to be seen as more dominant than women (e.g., decisive, competitive), but may no longer differ to women in terms of perceived competence (e.g., intelligent, task-oriented; Bongiorno et al., 2021;

[1] *Note that the two fundamental dimensions have several labels (e.g., 'competence and warmth'; Fiske at al., 2007) and depending on context there could be a third dimension (e.g., see Abele et al., 2021).*

Eagly, Nater, Miller, Kaufmann, & Sczesny, 2020; Hentschel et al., 2019; Leach, Carraro, Garcia, & Kang, 2017).[2]

Recently, research has begun to examine distinct facets of the fundamental dimensions to increase understandings of workplace gender inequality. Prati et al. (2019) examined real-life assessments of job performance, finding that competence (i.e., a facet of agency), and sociability and morality (i.e., facets of communality) were used to assess women's performance, whereas competence-related terms were primarily used to assess men's performance (for similar results using different methodologies, see Menegatti et al., 2021; Moscatelli et al., 2020). As women appeared to be evaluated on all the criteria considered, this phenomenon has been labelled as 'perfection bias'. This research accords with some previous research showing that negative attitudes towards women who meet agentic requirements of managers (i.e., 'the backlash effect') can be mitigated when they also exhibit communality (Heilman, & Okimoto, 2007).

However, perfection bias research has not yet examined managerial contexts, or the role of dominance as an additional facet of agency. Given dominance is strongly associated with stereotypes of leaders (e.g., Bongiorno et al., 2021), and the above-mentioned changes in gender stereotype content (e.g., Leach et al., 2017), it is plausible that women's relative lack of dominance, not competence, is the main contributor to a perceived lack of agency that reduces their selection into leadership roles. Thus, we considered dominance an important additional facet of agency to examine for the current research.

Facial first impressions: Leadership selection and gender differences

The effect of appearance in the workplace has been widely studied (e.g., Hosoda et al., 2003). For example, candidates with attractive, as opposed to unattractive, faces are considered more hireable (e.g., Watkins & Johnston, 2000). More recent research has also shown that people infer diverse personality traits (e.g., caring, intelligent, and confident) from facial appearance (Oosterhof & Todorov, 2008) and that these inferences affect leadership hiring processes (for a review, see Todorov et al., 2015). For instance, managers and CEOs with faces that are perceived as more competent and dominant tend to be employed in more successful companies and receive larger salaries (Fruhen, Watkins, & Jones, 2015; Graham, Harvey, & Puri, 2016; Rule & Ambady, 2008, 2009).

Facial inferences are grouped into three global dimensions: attractiveness–youthfulness, dominance, and trustworthiness (Oosterhof & Todorov, 2008; Sutherland et al., 2013), with evidencing suggesting that dominance and trustworthiness broadly map on to agency and communality (Imhoff et al., 2013; Oliveira, Garcia-Marques, Dotsch, & Garcia-Marques, 2019; Sutherland, Oldmeadow, & Young, 2016; see also Sutherland, Rhodes, Burton, & Young, 2020). Furthermore, like agency and communality, dominance and trustworthiness are gendered: Dominance is associated with a more masculine facial appearance and trustworthiness with a more feminine facial appearance (e.g., Sutherland et al., 2013).

Some studies have considered how the gender of faces interacts with stereotypic traits to influence facial first impressions. For example, a highly dominant appearance is perceived more negatively in female than male faces, because this is a gender-counter-stereotypic appearance for women (Oh et al., 2020; Sutherland, Young, Mootz, &

[2] *Note that these four facets have different labels (e.g., Abele et al., 2021; for further distinctions amongst the two broad dimensions, see for example Bongiorno et al., 2021; Hentschel et al., 2019).*

Oldmeadow, 2015). Thus, the same stereotypic quality inferred from facial appearance may be evaluated more positively or negatively, depending on whether a man or a woman is being judged. However, no prior research has examined the effect of this interplay between facial first impressions, gender categorization, and gender-stereotypic trait inferences on men's and women's perceived suitability for leadership.

Overview of the current research and hypotheses

Our key goal was to examine for the first time the distinct roles of competence and dominance (i.e., two facets of agency), as well as morality and sociability (i.e., two facets of communality), as four different gender-stereotypic qualities inferred from faces, to men's and women's perceived leadership suitability. We also considered attractiveness, as one of the three dimensions of facial first impressions (e.g., Sutherland et al., 2013), and because of its recognized effect on job-related outcomes (e.g., Hosoda et al., 2003). To achieve our aim, we conducted three experiments where a student sample (Study 1) and two working samples (Studies 2 and 3) evaluated men's and women's hirability for an Area Sales Manager position (Studies 1 and 2) and a Finance Manager position (Study 3).

Based on past perfection bias findings (Menegatti et al., 2021; Moscatelli et al., 2020; Prati et al., 2019), as well as previous research showing that female managers are held to leadership-specific (agentic) and gender-specific (communal) expectations (e.g., Heilman & Okimoto, 2007), we expected that women would be evaluated according to all the stereotypic qualities considered. Thus, we predicted that facial competence, dominance, morality, sociability, plus attractiveness would be important to female candidates' leadership hirability (Hypothesis 1a). For men, perfection bias evidence demonstrates that competence is the main criteria affecting their workplace evaluations, but dominance has not been simultaneously examined. Because dominance is highly relevant to stereotypes of both men and leaders (e.g., Schein, 2001), we extended perfection bias predictions and expected that facial competence and dominance, but not facial morality, sociability, or attractiveness, would be important to male candidates' leadership hirability (Hypothesis 1b).

Finally, perfection bias evidence suggests that morality, sociability, and attractiveness (but not competence) will be more important to the workplace evaluations of women than men (Menegatti et al., 2021; Moscatelli et al., 2020; Prati et al., 2019). Thus, in a further extension of perfection bias predictions, and incorporating research showing that women are still seen as relatively lacking in dominance compared with men, we expected that when making direct comparisons between men and women, facial dominance, morality, sociability, plus attractiveness would be more important for female candidates' than male candidates' leadership hirability (Hypothesis 2).

Background to methodological approach and pre-study

Gender inequality has received significant attention (e.g., European Commission, 2019, p. 5), and socially desirable responding may reduce the validity of research findings (e.g., Salkind, 2010). Thus, we used an 'implicit' or 'indirect' approach (see Gawronski & Hahn, 2019; Petty, Fazio, & Briñol, 2009) for the current research. Our methodology, drawn from face perception research, involved examining the effects of stereotypic qualities inferred from faces (e.g., dominance, competence) on leadership hirability, using ratings collected from separate (independent) groups of participants (for a similar methodology, see, e.g., Fruhen et al., 2015; Oh et al., 2020; Sutherland et al., 2016).

Figure 1. Two examples of the 100 pre-tested photographs retrieved from the Chicago Face Database (Ma et al., 2015) and employed in Studies 1–3.

As a first step, we ran a pre-study to: (1) select 50 photographs each of men and women matched on ratings of competence, dominance, morality, sociability, and attractiveness; and (2) obtain ratings of facial stereotypic qualities to use as independent variables in our studies. We chose the 183 (93 men and 90 women) photographs depicting White faces from the Chicago Face Database (Ma, Correll, & Wittenbrink, 2015), as this is the majority ethnic group in the United Kingdom (where the studies were conducted), and to avoid ethnicity as an additional source of variation (e.g., see Sutherland et al., 2018, on ethnic differences in face perception). The individuals depicted in the photographs had uniformly neutral expressions, and all wore grey *t*-shirts (see Figure 1).

Participants were students at an Italian university (N = 95; 50 men, 43 women, and two gender unspecified; 98% Italians; M_{age} = 24.6, SD_{age} = 4.13). We asked participants to rate photographs on three traits relating to one of the four stereotypic qualities: competent, efficient, intelligent (competence); determined, dominant, self-confident (dominance); honest, moral, sincere (morality); or caring, kind, sociable (sociability). Response options ranged from 1 (*not at all*) to 7 (*very much*). Thus, approximately 20 participants evaluated all photographs on one stereotypic quality only.

We averaged the three traits for each stereotypic quality to obtain competence (α = .94), dominance (α = .94), morality (α = .98), and sociability (α = .94) indexes for the 183 faces. Before selecting final photographs to use in our studies, we restricted the age range of faces to those appearing between 25 and 40 years old using Chicago Face Database scores (Ma et al., 2015), as this was the appropriate age range for our hypothetical leadership positions. On the basis of the average scores for each stereotypic quality and attractiveness, we selected 100 photographs (50 women, 50 men) with similar levels of each stereotypic quality and attractiveness (with attractiveness ratings retrieved from the Chicago Face Database, Ma et al., 2015).

To ensure ratings of male and female photographs did not significantly differ in terms of the four stereotypic qualities, attractiveness, or perceived age,[3] we ran several *t*-tests[4] (for means and standard deviations, see Table 1). Results showed no significant differences for the faces of men versus women across any stereotypic quality, age, or

[3] *The Kolmogorov-Smirnov test was significant for perceived age, indicating the distribution was not normal, both for photos of women,* D*(50) = .16,* p *< .01, and men,* D*(50) = .14,* p *< .05. According to the Mann–Whitney test, female photos (*Mdn *= 28.35) and male photos (*Mdn *= 29.18) did not significantly differ on perceived age,* U *= 1246,* ns*,* r *= −.003.*

[4] *Note that groups of female and male photos were compared running independent samples* t*-test, even though the design was within subjects. This choice was due to attractiveness and perceived age scores being retrieved from the Chicago Face Database (Ma et al., 2015), in which ratings are associated with photos, not to participants, precluding the possibility of using paired sample* t*-tests.*

Table 1. Means, *SD*s, and correlations among all variables for female candidates (top right) and *male candidates* (*bottom left*) for Studies 1, 2, and 3

	M (*SD*)	*M* (*SD*)	1	2	3	4	5	6	7	8	9
1. Perceived age	29.87 (4.09)	*29.88 (3.9)*	–	–	–	–	–	–	–	–	–
2. Attractiveness	3.11 (.76)	*2.97 (.62)*	–	–	.68**	.63**	.16	.09	.83**	.87**	.88**
3. Competence	3.95 (.55)	*3.92 (.48)*	–	*.61***	–	.47**	.58**	.50**	.82**	.80**	.78**
4. Dominance	3.68 (.68)	*3.55 (.68)*	–	*.36***	*.47***	–	−.23†	−.18†	.60**	.59**	.59**
5. Morality	3.72 (.45)	*3.72 (.40)*	–	*.48***	*.56***	*−.15†*	–	.66**	.39**	.34*	.30*
6. Sociability	3.61 (.57)	*3.55 (.59)*	–	*.22†*	*.52***	*.04†*	*.65***	–	.34*	.27†	.23†
7. Hirability (Study 1)	3.84 (.65)	*3.74 (.67)*	–	*.78***	*.78***	*.39***	*.64***	*.58***	–	–	–
8. Hirability (Study 2)	3.86 (.73)	*3.71 (.72)*	–	*.71***	*.78***	*.42***	*.60***	*.57***	–	–	–
9. Hirability (Study 3)	3.79 (.72)	*3.62 (.71)*	–	*.68***	*.75***	*.39***	*.57***	*.53***	–	–	–

Note. †$p > .06$, *$p < .05$, and **$p < .01$.

attractiveness (all *p*s > .319). These photographs were used as candidate pictures in Studies 1-3, and the corresponding ratings of the stereotypic qualities plus attractiveness were used as independent variables for predicting their hirability.

Study 1

Method

Participants

Power analysis is reported in the Supporting Information S1.[5] One hundred and forty-four students studying psychology at a UK university were recruited online via Sona in partial fulfilment of course requirements (see Table 2 for all demographics). The study was described as part of research on facial first impressions and evaluations of job candidates.

Procedure and materials

Participants were asked to assume the role of recruiters for an international organization looking for a new Area Sales Manager. The job description (see Appendix 1) was based on real advertisements, and a pre-test established that agentic traits (dominance and competence) were seen as more important than communal traits (sociability, morality) to succeed in this role (see the Supporting Information S1 for pre-test analyses). We asked respondents to make 'quick' facial first impression of the 100 candidate photographs and to report their judgements of each candidate's hirability with two items adapted from Rudman and Glick (1999): 'Would you recommend this candidate be interviewed for the job?' and 'How likely is it that this candidate would be hired for the job?' (1 = *very unlikely* and 7 = *very likely*; Pearson's $r = .99$). Demographics were asked at the end.

[5] *Note that the photos, not the participants, are the cases in this research.*

Table 2. Demographics from Studies 1, 2, and 3

	Gender	Age	Ethnicity	Citizenship	Education	Work Experience – Study 1/Industry employed – Studies 2 and 3
Study 1	F = 120 M = 18	*M* = 18.7 *SD* = 1.34 Range = 17–28	68.1% White 21.5% Asian/Asian British 6.3% other ethnic groups 4.2% not specified	72.5% British 27.5% non-British	All enrolled in an undergraduate degree	68.1% Yes 31.9% No
Study 2	F = 64 M = 65	*M* = 37.14 *SD* = 9.82 Range = 25–64	89.9% White 3.9% Asian/Asian British 1.6% Black/Black British 4.7% other ethnic groups	90.7% British 9.3% non-British	42.6% Undergraduate degree 22.5% Graduate degree 17.1% College/A levels 10.1% Secondary school 6.2% Doctorate degree (PhD/MD/other) 1.6% No formal qualifications	17.8% Professional, scientific or technical services 10.1% Educational services 9.3% Administration 9.3% Health care or social assistance 7% Retail trade 5.5% Construction 5.4% Arts, entertainment or recreation 4.7% Finance or insurance 4.7% Information 4.7% Manufacturing 3.9% Accommodation or food services 0.8% Management of companies 0.8% Real estate 0.8% Transportation or warehousing

Continued

Table 2. (*Continued*)

	Gender	Age	Ethnicity	Citizenship	Education	Work Experience – Study 1/Industry employed – Studies 2 and 3
Study 3	F = 77 M = 74	*M* = 37.67 *SD* = 8.82 Range = 25–63	90.1% White 6.6% Asian/Asian British 3.4% other ethnic groups	90.1% British 9.9% non-British	37.1% Undergraduate degree 32.5% College/A levels 16.6% Graduate degree 8.6% Secondary school 5.3% Doctorate degree (PhD/MD/other)	15.5% None of the above 15.2% Professional, scientific or technical services 12.6% Retail trade 11.9% Administration 11.9% Health care or social assistance 10.6% Educational Services 6% Arts, entertainment, or recreation 4.6% Information 4% Finance or insurance 3.3% Accommodation or food services 2.6% Transportation or warehousing 2.6% Manufacturing 2% Construction 0.7% Management of companies 0.7% Wholesale trade 11.3% None of the above

Table 3. Standardized regression coefficients (standard errors), structure coefficients (r_s) and RIW coefficients (RIW) for the five predictors of female and male candidates' hirability in Studies 1, 2, and 3

	Study 1			Study 2			Study 3		
	β (SE)	r_s	RIW	β (SE)	r_s	RIW	β (SE)	r_s	RIW
Female candidates									
Attractiveness	.50*** (.08)	.91	.32 a	.59*** (.09)	.95***	.38 a	.63*** (.09)	.96***	.40 a
Competence	.19 (.16)	.89	.21 ab	.28* (.18)	.87	.22 b	.29* (.18)	.85	.22 b
Dominance	.26* (.10)	.65	.17 b	.12 (.11)	.64	.15 bc	.07 (.11)	.64	.14 bc
Morality	.16 (.15)	.42*	.07 c	.07 (.17)	.36*	.05 cd	.04 (.17)	.33*	.05 cd
Sociability	.14 (.10)	.37	.06 c	.05 (.11)	.29*	.03 d	.02 (.11)	.25*	.03 d
	$R^2 = .842$, $adjR^2 = .824$ $F(5, 44) = 46.96$, $p < .001$			$R^2 = .850$, $adjR^2 = .833$ $F(5, 44) = 50.01$, $p < .001$			$R^2 = .834$, $adjR^2 = .816$ $F(5, 44) = 44.33$, $p < .001$		
Male candidates									
Attractiveness	.48*** (.09)	.85	.29 a	.37*** (.118)	.81***	.22 a	.33** (.13)	.81***	.19 ab
Competence	.22 (.15)	.86	.19 b	.26* (.19)	.89	.20 a	.29 (.21)	.90	.19 a
Dominance	.12 (.09)	.43	.08 c	.17 (.11)	.48	.09 a	.15 (.13)	.47	.08 b
Morality	.13 (.19)	.70*	.14 b	.13 (.23)	.68*	.13 a	.14 (.27)	.69*	.12 ab
Sociability	.27** (.10)	.64	.14 bc	.26* (.12)	.65*	.13 a	.22 (.14)	.64*	.11 ab
	$R^2 = .830$, $adjR^2 = .810$, $F(5, 44) = 42.91$, $p < .001$			$R^2 = .771$, $adjR^2 = .745$, $F(5, 44) = 29.66$, $p < .001$			$R^2 = .693$, $adjR^2 = .659$, $F(5, 44) = 19.90$, $p < .001$		

Note. *$p < .05$, **$p < .01$, and ***$p < .001$. Significance of structure coefficients indicates significant differences between the four stereotypic qualities and attractiveness of female versus male candidates (between candidate gender comparisons). In RIW columns, different letters mean significant differences between the four stereotypic qualities and attractiveness (within candidate gender comparisons).

Results

Table 1 reports means, standard deviations, and Pearson's correlation coefficients for all variables, differentiated by candidate gender. As a preliminary analysis,[6] we ran a one-way repeated-measures ANOVA, with candidate gender as within fixed factor, on hirability. We did not find that men candidates were considered more hireable than women candidates for this leadership position ($p = .473$).

Results of the analyses below are reported in Table 3. To test Hypothesis 1, we conducted separate regression analyses for women and men candidates, entering the ratings of competence, dominance, morality, sociability, and attractiveness as predictors of candidates' hirability. Both models were highly significant, explaining 82.4% (female candidates) and 81% (male candidates) of the variance. Inconsistent with Hypothesis 1a,

[6] *All the analyses were also run excluding non-British participants and comparing female versus male participants, but there were no meaningful differences in Studies 1, 2 and 3.*

for women, only attractiveness and dominance were significant predictors of hirability rather than all judgement criteria.[7] Inconsistent with Hypothesis 1b, attractiveness and sociability were significant predictors of men's hirability, but competence and dominance were not significant predictors.

To test Hypothesis 2 that facial dominance, sociability, morality, and attractiveness would be more important to women's than men's hirability, we ran correlation comparisons (e.g., Field, 2009) to compare female candidates versus male candidates on the importance of each of the four stereotypic qualities and attractiveness to their hirability (i.e., between candidate gender comparisons). We used structure coefficients computed by R's (R Core Team, 2014) 'yhat' package (Nimon, Oswald, & Roberts, 2013), which are bivariate correlations between an observed predictor variable and the predicted estimate of the outcome variable (Courville & Thompson, 2001; Kraha, Turner, Nimon, Zientek, & Henson, 2012). Structure coefficients represent a measure of the relationship between the independent variable and the dependent variable because they have universal statistical boundaries (−1 to +1), which indicate the direction of the relationship (positive or negative).[8] Thus, results of correlation comparisons with structure coefficients indicate whether the relationship between a stereotypic quality and hirability is significantly stronger (i.e., significantly higher coefficient) for female than for male candidates (or vice versa), meaning that this stereotypic quality is more important for female than for male candidates' hirability (or vice versa).

Results of the correlation comparisons highlighted only one significant difference: The structure coefficient for morality for male candidates was significantly larger than it was for female candidates, $Z = -2$, $p = .045$, $n = 50$. No other comparisons between equivalent predictors (i.e., competence, dominance, sociability, and attractiveness) for female versus male candidates were significant (all ps $> .084$). Thus, inconsistent with Hypothesis 2, morality was more important in affecting male candidates' than female candidates' hirability and no differences emerged along dominance, sociability, and attractiveness.

Exploratory analyses: Relative importance weights

Regression results did not support Hypothesis 1, but when predictors are correlated, even if there are not multicollinearity issues, the variance explained of the dependent variable can be shared by predictors making regression results difficult to interpret (Kraha et al., 2012; Lorenzo-Seva, Ferrando, & Chico, 2010; Nimon & Oswald, 2013). Thus, we chose to run relative importance weights (RIW) analysis (Johnson, 2000, 2004), which tends to de-emphasize redundant predictors (e.g., Kraha et al., 2012). This allowed to test the relative importance of the four stereotypic qualities and attractiveness for women and men candidates' hirability, respectively (i.e., within candidate gender comparisons). Indeed, RIW give information about the contribution of each predictor to R^2, providing a ranking

[7] *The Variance Inflation Factor (VIF) of the competence variable in the female candidates' model was 5.146 suggesting collinearity. Since the tolerance value was higher than .01 (.194) and the Collinearity index was less than 30 (16.83), collinearity was not problematic (Barbaranelli & D'Olimpio, 2007) and competence was not excluded from the regression analyses.*

[8] *Structure coefficients are specifically recommended in case of correlated predictors in multiple regression analysis. For example, a beta can be negative and non-significant, even if structure coefficient indicates that the relationship between independent and dependent variable is positive and the independent variable is the best one among predictors (e.g., see Courville & Thompson, 2001, p. 241). Moreover, beta weights evaluate how much the criterion variable increases when the predictor variable is increased by a standard deviation, holding constant other variables in the model. Thus, whereas structure coefficients can be interpreted as measuring relationships, betas cannot be.*

of which predictor (i.e., the four stereotypic qualities and attractiveness) contributes the most. We calculated RIW with the above-mentioned R's 'yhat' package (Nimon et al., 2013), which also performed bootstrap (1,000 resamples) and 95% percentile confidence intervals around the difference between RIW coefficients. Thus, while RIW gave us a predictors' ranking of importance of the four stereotypic qualities and attractiveness, the confidence intervals represent a significance test.

For female candidates, in descending order of importance, the ranking was as follows: attractiveness, competence, dominance, morality, and sociability. Bootstrap confidence intervals showed that attractiveness, competence, and dominance were relatively more important than sociability and morality to female candidates' hirability. For male candidates, in descending order, the predictors' ranking was as follows: attractiveness, competence, morality, sociability, and dominance. Bootstrap confidence intervals showed that attractiveness was the most important predictor of male candidates' hirability, while dominance appeared to be the least important predictor.

Discussion

The results did not support our perfection bias predictions: All criteria examined were not equally important to women's perceived hirability (Hypothesis 1a) and nor was competence and dominance the only criteria predictive of men's hirability (Hypothesis 1b). Instead, we found that attractiveness and dominance were the only two significant predictors of women's hirability, while attractiveness and sociability were the only two significant predictors of men's hirability. Our exploratory analyses provided additional clarity over the contribution and relative importance of each predictor to men's and women's hirability: For both women and men candidates, attractiveness was the most important predictor, followed by competence. After these, dominance was the next most important predictor of women's hirability, while sociability and morality were more important than dominance to men's hirability. Comparing men and women directly, we found that morality was more important to men's than women's perceived leadership hirability. This did not support our prediction that dominance, morality, sociability, and attractiveness would be more important to judgements of women than men (Hypothesis 2).

In sum, results suggested that after attractiveness and competence, the most important for both male and female candidates, evaluators gave greater weight to gender-counter-stereotypic qualities inferred from the faces of men and women. We conducted two additional studies to examine further evidence for this unexpected pattern.

Studies 2 and 3

We sought to replicate the unexpected findings in Study 1 that after attractiveness and competence, evaluators placed more weight on qualities men and women are stereotypically perceived to lack: dominance for women and morality and sociability for men. While Study 1 used a female-dominated student sample, in Studies 2 and 3 we used gender-balanced working samples. Study 2 used the same Area Sales Manager description as Study 1, while Study 3 used a more male-dominated leadership role in the financial sector (Adams & Kirchmaier, 2016).

Method

Participants and procedure

There were 129 participants in Study 2 and 151 participants in Study 3. Participants were UK working residents, recruited online via Prolific and remunerated at a rate of pay equivalent to the UK living wage (see Table 2 for participant demographics). In Study 2, the procedure and materials were identical to Study 1 (Pearson's $r = .99$ for the same hirability items). In Study 3, we used a Finance Manager description (see Appendix 1), whose pre-test showed that agentic traits (dominance and competence) were seen as more important than communal traits (sociability, morality) to succeed in this role (see the Supporting Information S1 for pre-test analyses), and the same hirability items as in previous studies (Pearson's $r = .99$). Some additional attitude measures to use in exploratory analyses were also collected at the end of this survey, prior to demographic items (for details, see 'Exploratory Analyses: Female vs. Male Candidates' Hirability Ratings' in the Supporting Information S1).

Results

As in Study 1, we performed a 2 (candidate gender) × 2 (participant gender) mixed-design ANOVA on hirability, with the first factor within participants. There was a main effect of candidate gender in both studies: $F_{St2}(1, 127) = 17.33$, $p_{St2} < .001$, $\eta^2_{p\ St2} = .120$; $F_{St3}(1, 149) = 18.88$, $p_{St3} < .001$, $\eta^2_{p\ St3} = .112$, with female candidates considered more hireable than male candidates (for means and standard deviations, see Table 1). In Study 3, we also found a significant candidate gender-by-participant gender interaction, $F_{St3}(1, 149) = 5.82$, $p_{St3} = .017$, $\eta^2_{p\ St3} = .038$. Pairwise comparisons showed that female participants considered female candidates more hireable than male candidates (for means

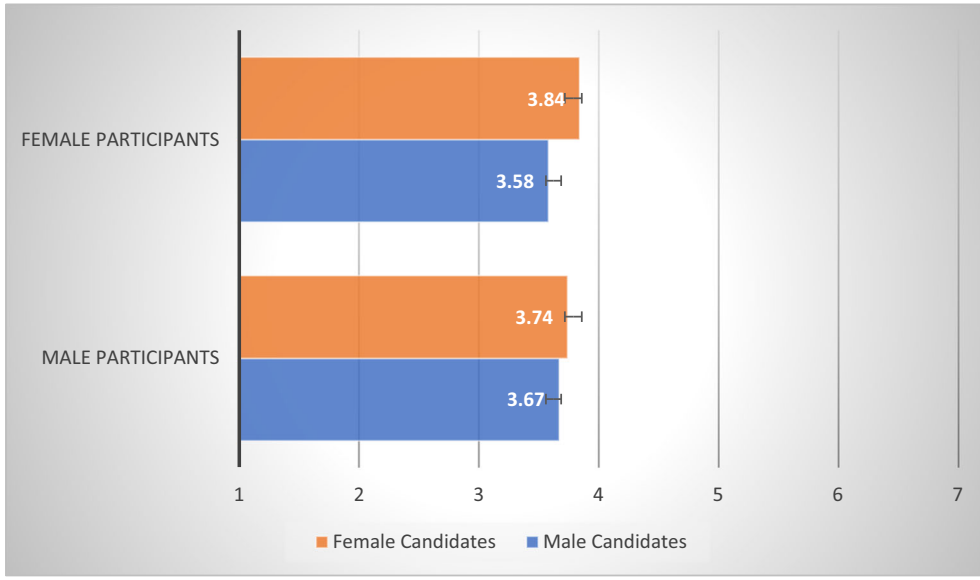

Figure 2. Bar graph with hirability means and SDs by candidate gender and participant gender from *Study 3*.

and standard deviations, see Figure 2), $p_{St3} < .001$. No other effects were significant in either study (all $ps_{St2} > .116$; all $ps_{St3} > .178$).

Results of the analyses below are reported in Table 3. First, we ran separate regression analyses for female and male candidates. Both models were highly significant, in Study 2 explaining 83.3% (female candidates) and 74.5% (male candidates) of the variance, and in Study 3, explaining 81.6% (female candidates) and 65.9% (male candidates) of the variance. In Studies 2 and 3, attractiveness and competence were significantly associated with female candidates' hirability, in contrast to Study 1 where attractiveness and dominance were significant predictors. For male candidates, as with Study 1, in Study 2, attractiveness and sociability were significantly associated with their hirability, and in Study 2, competence also emerged as a significant predictor. In Study 3, the only significant predictor of male candidates' hirability was attractiveness.

Next, we directly compared female and male candidates using the structure coefficients for each facial stereotypic quality and attractiveness (i.e., between candidate gender comparisons). In contrast to Study 1, where the only significant comparison was morality, three different comparisons were significant in Studies 2 and 3: Attractiveness was a significantly greater predictor of hirability for female than for male candidates, $Z_{St2} = 3.21$, $p_{St2} = .001$, $n_{St2} = 50$; $Z_{St3} = 3.94$, $p_{St3} < .001$, $n_{St3} = 50$. However, morality, $Z_{St2} = -2.2$, $p_{St2} = .028$, $n_{St2} = 50$; $Z_{St3} = -2.43$, $p_{St3} = .015$, $n_{St3} = 50$, and sociability, $Z_{St2} = -2.29$, $p_{St2} = .022$, $n_{St2} = 50$; $Z_{St3} = -2.38$, $p_{St3} = .017$, $n_{St3} = 50$, were significantly greater predictors of hirability for male than for female candidates. No other comparisons were significant in either study (all $ps_{St2} > .231$; all $ps_{St3} > .230$).

Relative importance weights

As in Study 1, to evaluate the relative importance of the five predictors in the models for male and female candidates, we computed RIW coefficients (i.e., within candidate gender comparisons). Results for female candidates in Studies 2 and 3, as in Study 1, were consistent. The predictors' ranking in descending order of importance was as follows: attractiveness, competence, dominance, morality, and sociability. Bootstrap confidence intervals around the differences between RIW coefficients showed that attractiveness and competence were the two most important predictors, followed by dominance.

For male candidates, RIW coefficients in Study 2 showed that the predictors' ranking in descending order was as follows: attractiveness, competence, sociability, morality, and dominance. In Study 3, the ranking was as follows: attractiveness, competence, morality, sociability, and dominance. Thus, coefficients in both Studies 2 and 3, as in Study 1, consistently showed that morality and sociability were more important than dominance. However, in contrast to Study 1, bootstrap confidence intervals found only one significant difference in Study 3, with competence significantly more important than dominance.

Internal meta-analysis

Across the three studies, results showed a consistent pattern. To establish greater confidence in this pattern, we ran a mini meta-analysis (Cumming, 2011, 2014). Pearson's correlations between each of the four stereotypic qualities plus attractiveness and hirability for female and male candidates taken from Studies 1–3 were entered in ProMeta 3.0 (idostatistics.com) and averaged to obtain total effect sizes.

Mirroring correlation comparisons and RIW analysis, we ran diverse *Q*-tests to examine the relative importance of the four stereotypic qualities and attractiveness between and

Table 4. Results of the internal meta-analysis: total effect sizes (Pearson's correlations averaged from Studies 1, 2, and 3) and 95% confidence intervals for each stereotypic quality and attractiveness differentiated by candidate gender

	Attractiveness (95% CI)	Competence (95% CI)	Dominance (95% CI)	Morality (95% CI)	Sociability (95% CI)
Female candidates	.86*__a__ (.82, .90)	.80*a (.74, .86)	.59*__b__ (.49, .70)	.34*__c__ (.20, .49)	.28*__c__ (.13, .44)
Male candidates	.73*__ab__ (.65, .80)	.77*a (.71, .84)	.40*__c__ (.26, .54)	.60*__bd__ (.50, .71)	.56*__cd__ (.45, .67)

Note. *$p < .001$. Within each column, letters in **bold and *italics*** indicate significant differences ($ps < .03$) at the *Q*-test (between candidate gender comparisons). Different letters in row indicate significant differences ($ps < .02$) at the *Q*-test (within candidate gender comparisons).

within candidate gender. Results are summarized in Table 4 (see the Supporting Information S1 for a full description). Comparing correlations for each stereotypic quality plus attractiveness of female candidates versus male candidates (i.e., between candidate gender comparisons), *Q*-tests showed no significant difference between female and male candidates' total effect sizes for competence, $Q(1) = 0.38$, $p = .538$. However, attractiveness, $Q(1) = 10.35$, $p = .001$, and dominance, $Q(1) = 4.70$, $p = .03$, were more important for female than for male candidates' hirability, while morality, $Q(1) = 8.23$, $p = .004$, and sociability, $Q(1) = 8.26$, $p = .004$, were more important for male than for female candidates' hirability. Then, we compared correlations between each stereotypic quality plus attractiveness for female and male candidates separately (i.e., within candidate gender comparisons). *Q*-tests highlighted that attractiveness and competence were the two most important predictors of female candidates' hirability, all Qs > 12.37 and ps $< .001$, and dominance was the third most important, all Qs > 7.36 and ps $< .007$. For male candidates, *Q*-tests overall highlighted that attractiveness and competence were the two most important predictors, all $Q(1) > 5.73$, $p < .017$, and that dominance was the least important predictor, all Qs > 5.4 and ps $< .020$. In sum, the internal meta-analysis provided robust support for the pattern found across Studies 1–3.

Discussion

The aim of Studies 2 and 3 was to examine further support for the unexpected pattern observed in Study 1; results were broadly consistent and confirmed by an internal meta-analysis. The pattern highlighted a 'deficit bias', such that after attractiveness and competence (the most important qualities for both women and men), evaluators attended more to qualities in men and women they are stereotypically perceived to lack: dominance for women, and morality and sociability for men (e.g., Leach et al., 2017). As attractiveness remained the most important predictor of hirability in Study 3, which used a Finance Manager position, its importance in Studies 1 and 2 is unlikely to be due to its potential relevance to the more public-facing role of Area Sales Manager.

General discussion

In this research, we sought to build on prior research examining the impact of distinct facets of stereotypes to understanding gender bias in the workplace (Menegatti et al.,

2021; Moscatelli et al., 2020; Prati et al., 2019). We examined for the first time the effects of distinct facets of both agency (competence, dominance) and communality (morality and sociability), plus attractiveness, to potential bias in evaluations of men and women leadership candidates, based on how these facets are inferred from their faces.

Across three studies, we found that evaluators may be influenced by a gender stereotype deficit bias when considering men's and women's suitability for leadership roles. Using both student (Study 1) and working (Studies 2 and 3) samples and two different leadership roles (Studies 1 and 2: Area Sales Manager; Study 3, Finance Manager), a consistent pattern, confirmed by an internal meta-analysis, emerged: For all candidates, attractiveness and competence were the two most important predictors of leadership hirability. For women, dominance was the next most important predictor of their leadership hirability, with morality and sociability of lesser importance. Conversely for men, morality and sociability were more important than dominance. Between-gender comparisons revealed that attractiveness and dominance were more important to women's than men's hirability, while morality and sociability were more important to men's than women's hirability.

The prominence of attractiveness as a predictor of candidate suitability can be interpreted as further evidence for the well-known 'what is beautiful is good' effect (Dion, Berscheid, & Walster, 1972), such that being attractive represents an advantage (regardless of gender) in work contexts (Hosoda et al., 2003). This finding is inconsistent with some research, which found that attractiveness was important only for women in personnel selection (i.e., Menegatti et al., 2021). Yet, as expected, we did find that attractiveness was relatively more important in judging women than men, which can presumably be explained by a general greater pressure on women's appearance in Western culture (Wolf, 1990; see also Ramati-Ziber, Shnabel, & Glick, 2020).

After attractiveness, competence was the most important among the four stereotypic qualities for both men and women. This finding is consistent with social-cognition research, where competence is recognized as the most important judgement criteria affecting job-related outcomes (e.g., Brambilla et al., 2011). It also underscores the importance of distinguishing between competence and dominance as facets of agency when examining gender-based prejudice. Recent evidence suggests that competence may no longer strongly differentiate stereotypes of men and women (Eagly et al., 2020; Hentschel et al., 2019), and our research suggests that this may have reduced (or eliminated) competence as a factor affecting judgements of men's and women's leadership suitability. As the other qualities we examined (dominance, sociability, morality) do still strongly differentiate stereotypes of men and women, this could help explain why these qualities were a focus of different evaluations. Below, we consider our deficit bias findings further.

The 'Deficit Bias'

The main finding of this research suggests a gender stereotype deficit bias in judging the suitability of female and male candidates for leadership roles. Beyond attractiveness and competence, there was a greater focus on the qualities that men and women are stereotypically perceived to lack: sociability and morality for men, and dominance for women (e.g., Bongiorno et al., 2021). The lesser importance placed on men's dominance by participants seems comprehensible, as men's greater association with agency/leadership (for a meta-analysis, see Koenig et al., 2011) may afford them the benefit of the doubt on this stereotypic quality that is not afforded to women (for related findings and

theorizing, see Bongiorno, Bain, & David, 2014; Eagly & Karau, 2002). Similarly, morality and sociability may have been relatively less important for women's leadership suitability because women are presumed to have these traits.

What is less clear is why men's sociability and morality, which they do stereotypically lack, were considered so important to their leadership suitability, considering these qualities are not stereotypically relevant to leadership. We speculate that such qualities are now more relevant to beliefs about being a good leader, increasing their importance when evaluating men who are not expected to be sociable or moral. Such communal qualities are reflected in leadership styles receiving increasing attention over the last few decades (Anderson & Sun, 2017), including transformational leadership – having 'individualized consideration' (Eagly, 2007; Eagly & Carli, 2003); authentic leadership – behaving in line with internalized moral standards (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008); servant leadership – treating others with moral consideration (Dennis & Bocarnea, 2005; Russell & Gregory Stone, 2002); and ethical leadership – being fair, honest, trustworthy, and moral (Brown, Treviño, & Harrison, 2005; Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009). Thus, as communality is becoming relevant for leadership and given that men are seen as low in communal traits, participants may have perceived morality and sociability as more important to men's hirability than their dominance, a quality men are stereotypically presumed to have.

On the contrary, the focus on dominance for women candidates, who are still stereotypically seen as relatively lacking in it, diverges from the predicted 'backlash' against dominant/agentic women (Rudman, Moss-Racusin, Phelan, & Nauts, 2012). However, this finding converges with evidence showing that dominance is preferred in women, so long as it is not expressed too directly (for a review, see Williams & Tiedens, 2016). For instance, Bongiorno et al. (2014) found that women advocates who displayed dominance by using assertive speech styles when presenting an opinion were more likeable and more influential than women who used tentative speech, while the dominance of men's speech did not affect their influence or likeability (cf. Carli, 1990; also see Gill & Orgad's, 2015 work on the rise in valuing confident women). On this basis, we suggest that the dominance inferred from facial first impressions is an implicit and therefore acceptable and desired attribute when evaluators consider women leadership candidates, where dominance is expected.

Our findings also align with expectancy violation theory (Bettencourt, Dill, Greathouse, Charlton, & Mulholland, 1997; Jussim et al., 1987; Prentice & Carranza, 2003), according to which unexpected but positive stereotypic qualities can lead to more favourable evaluations of the target than when the same qualities are stereotypically expected, or negative. For example, men with transformational leadership style (i.e., characterized by more communal/feminine qualities) have a 'communality-bonus' and are thus evaluated more positively than women (Heilman & Chen, 2005; Hentschel, Braun, Peus, & Frey, 2018; Shaughnessy, Mislin, & Hentschel, 2015). Similarly, in our research, participants placed more importance on those qualities of female and male candidates that were counter-stereotypic (i.e., unexpected).

Women candidates in our studies were also evaluated as more hireable than men, which may be because the counter-stereotypic quality of dominance evaluators focused on when rating them is more in line with the requirements of the positions. The pre-tests of our job descriptions highlighted that dominance was considered more important than morality or sociability to succeed in the positions (for a full description of pre-tests, see the Supporting Information S1). Thus, even if evaluators placed greater weight on the counter-stereotypic attributes exhibited in both men's and women's faces, as dominance

was more relevant to succeed in these roles than morality and sociability, it may have prompted a 'dominance-bonus' for women.

Facial first impression theoretical and practical implications

Considering the facial first impression literature, our research supports the idea that the same facial appearance can be evaluated differently in men and women due to gender stereotypes (Oh et al., 2020; Sutherland et al., 2015). Even if female and male candidates' faces did not statistically differ on the perceived levels of attractiveness, competence, dominance, morality, and sociability, participant's responses to men and women candidates did differ, with a greater emphasis on qualities for women and men that were counter-stereotypic. We went beyond previous research by showing this different evaluation of the same stereotypic qualities inferred from men's versus women's faces can have practical implications that differentially influence their perceived leadership suitability.

From a practical standpoint, our work supports existing evidence of the influence of appearance and facial first impressions in the workplace (e.g., Fruhen et al., 2015; for a review, see Little & Roberts, 2012). Our findings suggest that, as traits are unconsciously inferred from faces and may be misleading relative to candidates' actual qualities (Todorov et al., 2015), HR professionals may make biased hiring decisions due to a reliance on social network accounts where people post their photographs (Dutta, 2010; Woods et al., 2020). Besides attractiveness, our deficit bias findings indicate that evaluations of men and women for leadership positions could be biased by stereotypic beliefs about stereotypic qualities inferred from their faces. To address this bias, interventions should focus on reducing the influence of facial first impressions and erroneous judgements about (counter-stereotypic) qualities of men and women candidates. This could be done through training to highlight potential biases, or anonymizing résumés and cover letters during the early stages of recruitment so that both gender and appearance play a less important role (Heilman & Caleo, 2018; see also Lowman et al., 2019).

Limitations and future directions

Our research presents some limitations linked to ecological validity. First, our selection of facial photographs was based on 'medium' levels of the four stereotypic qualities, plus attractiveness, perceived in men's and women's faces. This could explain why we found no evidence of a 'backlash effect' (e.g., Rudman et al., 2012; Sutherland et al., 2015), whereby highly dominant women tend to be disliked, as well as a 'beauty is beastly effect' (Braun et al., 2012; Heilman & Saruwatari, 1979; Paustian-Underdahl & Walker, 2016), whereby highly attractive women face discrimination. Future research could examine whether the deficit bias also occurs for faces rated at more extreme levels of dominance and attractiveness, as well as competence, morality, and sociability.

It would also be interesting for future research to test possible interaction effects. For example, as attractiveness activates stereotyped expectations on which the target is evaluated (e.g., Heilman, 1983), future research could investigate interactive effects with attractiveness, testing whether it influences the hirability of men and women whose faces are rated as high/low in morality and sociability versus high/low in dominance. Another possible moderator could be facial masculinity-femininity, which has been used to investigate the interplay between gender categorization, gender stereotypes and facial first impressions (e.g., Sutherland et al., 2015), and found to affect leaders' evaluations

(e.g., Silberzahn & Menges, 2016; Von Stockhausen, Koeser, & Sczesny, 2013). Thus, future research could test whether the deficit bias holds when examining men and women with high versus low levels of facial masculinity–femininity.

Second, we provided our participants only with a job description and candidates' photographs. In reality, HR professionals are provided with complex information about job candidates, including a detailed CV and motivation letter. Thus, personnel selection processes are likely to be affected by a range of factors beyond what we examined here. On this point, the facial first impression literature shows that facial bias can persist despite the provision of additional information (e.g., Rezlescu, Duchaine, Olivola, & Chater, 2012) and several studies found an effect of facial bias when judging actual leaders (e.g., Rule & Ambady, 2008, 2009; Todorov, Mandisodza, Goren, & Hall, 2005). Thus, further research is needed to establish whether, and how, our deficit bias lingers and affects men and women's leadership hirability and other work-related judgements when additional information is available.

Third, we used standardized, controlled photographs (e.g., same backgrounds, clothes, pose, neutral expression) and kept ethnicity constant with all White faces. Our results are therefore not generalizable beyond White faces, and future research is needed to establish whether the same or different effects emerge for photographs of men and women from other ethnic backgrounds (e.g., Galinsky, Hall, & Cuddy, 2013; Sesko & Biernat, 2010; Sutherland et al., 2018). Moreover, photographs of candidates found in real life are typically taken across different contexts, capturing candidates wearing different clothes and exhibiting different expressions. Thus, future research is needed to examine evidence for our findings using a more varied range of photographs (e.g., Sutherland et al., 2013).

Fourth, while we used two different leadership positions, further research should examine evidence for the deficit bias in other leadership domains. Moreover, we chose managerial positions as the most common leadership role to be easily applied across a wide range of workplace contexts. However, the presence of women in high-level leadership positions is even less than in managerial positions (e.g., just 8.2% of Chief Executive Officers are women, European Institute for Gender Equality, 2020). Future research is therefore needed to establish whether the deficit bias is found when using high-level leadership roles.

Conclusion

The current research offers new insights on gender stereotypes and leadership hiring, confirming the importance of considering distinct facets of the two fundamental stereotype content dimensions. While competence was equally important for men's and women's hirability, morality and sociability were more important for men candidates and dominance was a greater focus for women candidates. Evidence for women supports the idea that the perceived lack of dominance, not competence, may be the facet of agency relevant to understanding how stereotypes inhibit women's perceived leadership suitability (see also Eagly et al., 2020; Hentschel et al., 2019). For men, the unexpected focus on morality and sociability, relative to dominance, suggests a shift towards valuing more communal leadership. We hope this work will spark more research on the 'deficit bias', including examining more specific aspects of gender-stereotypic content to determine the influence on women's and men's workplace opportunities.

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Conflicts of interest

The authors report no conflict of interest.

Author contribution

Sara Pireddu: Conceptualization (equal); Data curation (equal); Formal analysis (equal); Investigation (equal); Methodology (equal); Writing – original draft (equal); Writing – review & editing (equal). **Renata Bongiorno:** Conceptualization (equal); Data curation (equal); Investigation (equal); Project administration (equal); Supervision (equal); Writing – original draft (equal); Writing – review & editing (equal). **Michelle K. Ryan:** Conceptualization (equal); Funding acquisition (equal); Investigation (equal); Project administration (equal); Resources (equal); Software (equal); Supervision (equal); Writing – review & editing (equal). **Monica Rubini:** Funding acquisition (equal); Resources (equal); Supervision (equal). **Michela Menegatti:** Funding acquisition (equal); Project administration (equal); Supervision (equal); Writing – review & editing (equal).

Ethical approval

The research meets ethical guidelines of the Uniform Requirements for Manuscripts of the International Committee of Medical Journal Editors (ICJME) and the Committee on Publication Ethics (COPE). The three studies reported in this manuscript were conducted in accordance with ethical clearance from the CLES – Psychology Ethics Committee at the University of Exeter (eCLESPsy000821). Ethics for the pre-study was conducted in accordance with ethical clearance granted at the University of Bologna (prot. N. 134739).

Data availability statement

The authors confirm that the data supporting the main findings of this research are available online within the Supporting Information S2 and Supporting Information S3.

References

Abele, A. E., Ellemers, N., Fiske, S. T., Koch, A., & Yzerbyt, V. (2021). Navigating the social world: Toward an integrated framework for evaluating self, individuals, and groups. *Psychological Review*, *128*(2), 290–314. https://doi.org/10.1037/rev0000262

Abele, A. E., Hauke, N., Peters, K., Louvet, E., Szymkow, A., & Duan, Y. (2016). Facets of the fundamental content dimensions: Agency with competence and assertiveness – communion with warmth and morality. *Frontiers in Psychology*, *7*, 1810. https://doi.org/10.3389/fpsyg.2016.01810

Abele, A. E., & Wojciszke, B. (2014). Communal and agentic content in social cognition: A dual perspective model. In J. M. Olson & M. P. Zanna (Eds.), *Advances in experimental social psychology* (Vol. *50*, pp. 195–255). Academic Press. https://doi.org/10.1016/B978-0-12-800284-1.00004-7

Adams, R. B., & Kirchmaier, T. (2016). Women on boards in finance and STEM industries. *American Economic Review*, *106*(5), 277–281. https://doi.org/10.1257/aer.p20161034

Anderson, M. H., & Sun, P. Y. (2017). Reviewing leadership styles: Overlaps and the need for a new 'full-range' theory. *International Journal of Management Reviews*, *19*(1), 76–96. https://doi.org/10.1111/ijmr.12082

Barbaranelli, C., & D'Olimpio, F. (2007). *Analisi dei dati con SPSS*. LED Edizioni Universitarie. https://www.lededizioni.com/catalogo.html?/catalogo/barbaranellianalisispss.html

Barreto, M. E., Ryan, M. K., & Schmitt, M. T. (2009). *The glass ceiling in the 21st century: Understanding barriers to gender equality*. American Psychological Association. https://www.apa.org/pubs/books/4316109

Bettencourt, B. A., Dill, K. E., Greathouse, S. A., Charlton, K., & Mulholland, A. (1997). Evaluations of ingroup and outgroup members: The role of category-based expectancy violation. *Journal of Experimental Social Psychology*, *33*(3), 244–275. https://doi.org/10.1006/jesp.1996.1323

Bongiorno, R., Bain, P. G., & David, B. (2014). If you're going to be a leader, at least act like it! Prejudice towards women who are tentative in leader roles. *British Journal of Social Psychology*, *53*(2), 217–234. https://doi.org/10.1111/bjso.12032

Bongiorno, R., Bain, P. G., Ryan, M., Kroonenberg, P. M. & Leach, C. W. (2021). Think leader-think (immoral, power-hungry) man: An expanded framework for understanding stereotype content and leader gender bias. https://doi.org/10.31234/osf.io/p5uya

Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2011). *Introduction to meta-analysis*. John Wiley & Sons. https://www.wiley.com/en-it/Introduction+to+Meta+Analysis-p-9780470057247

Brambilla, M., & Leach, C. W. (2014). On the importance of being moral: The distinctive role of morality in social judgment. *Social Cognition*, *32*(4), 397–408. https://doi.org/10.1521/soco.2014.32.4.397

Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology*, *41*(2), 135–143. https://doi.org/10.1002/ejsp.744

Brambilla, M., Sacchi, S., Rusconi, P., & Goodwin, G. (2021). The primacy of morality in impression development: Theory, research, and future directions. In B. Gawronski (Ed.), *Advances in Experimental Social Psychology* (Vol. *64*, pp. 187-262). Academic Press. https://doi.org/10.1016/bs.aesp.2021.03.001

Braun, S., Peus, C., & Frey, D. (2012). Is Beauty Beastly? Gender-Specific Effects of Leader Attractiveness and Leadership Style on Followers' Trust and Loyalty. *Zeitschrift für Psychologie*, *220*(2), 98–108. https://doi.org/10.1027/2151-2604/a000101

Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, *97*(2), 117–134. https://doi.org/10.1016/j.obhdp.2005.03.002

Caers, R., & Castelyns, V. (2011). LinkedIn and Facebook in Belgium: The influences and biases of social network sites in recruitment and selection procedures. *Social Science Computer Review*, *29*(2), 437–448. https://doi.org/10.1177/0894439310386567

Carli, L. L. (1990). Gender, language, and influence. *Journal of Personality and Social Psychology*, *59*(5), 941–951. https://doi.org/10.1037/0022-3514.59.5.941

Carrier, A., Louvet, E., Chauvin, B., & Rohmer, O. (2014). The primacy of agency over competence in status perception. *Social Psychology*, *45*(5), 347–356. https://doi.org/10.1027/1864-9335/a000176

Christopher, A. N., & Wojda, M. R. (2008). Social dominance orientation, right-wing authoritarianism, sexism, and prejudice toward women in the workforce. *Psychology of Women Quarterly*, *32*(1), 65–73. https://doi.org/10.1111/j.1471-6402.2007.00407.x

Courville, T., & Thompson, B. (2001). Use of structure coefficients in published multiple regression articles: β is not enough. *Educational and Psychological Measurement*, *61*(2), 229–248. https://doi.org/10.1177/0013164401612006

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS Map. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. *40* (pp. 61–149). Elsevier Academic Press. https://doi.org/10.1016/S0065-2601(07)00002-0

Cumming, G. (2011). *Understanding the new statistics: Effect sizes, confidence intervals, and meta-analysis*. Routledge. https://doi.org/10.4324/9780203807002

Cumming, G. (2014). The new statistics: Why and how. *Psychological Science*, *25*(1), 7–29. https://doi.org/10.1177/0956797613504966

Dennis, R. S., & Bocarnea, M. (2005). Development of the servant leadership assessment instrument. *Leadership & Organization Development Journal*, *26*(8), 600–615. https://doi.org/10.1108/01437730510633692

Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, *24*(3), 285–290. https://doi.org/10.1037/h0033731

Dutta, S. (2010). What's your personal social media strategy? *Harvard Business Review*, *88*(11), 127–130. https://hbr.org/2010/11/managing-yourself-whats-your-personal-social-media-strategy

Eagly, A. H. (2007). Female leadership advantage and disadvantage: Resolving the contradictions. *Psychology of Women Quarterly*, *31*(1), 1–12. https://doi.org/10.1111/j.1471-6402.2007.00326.x

Eagly, A. H., & Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. *The Leadership Quarterly*, *14*(6), 807–834. https://doi.org/10.1016/j.leaqua.2003.09.004

Eagly, A. H., & Carli, L. L. (2007). *Through the labyrinth: The truth about how women become leaders*. Harvard Business School Press. https://hbsp.harvard.edu/product/1691-PDF-ENG

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573–598. https://doi.org/10.1037/0033-295X.109.3.573

Eagly, A. H., Nater, C., Miller, D. I., Kaufmann, M., & Sczesny, S. (2020). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *American Psychologist*, *75*(3), 301–315. https://doi.org/10.1037/amp0000494

European Commission. (2019). 2019 Report on equality between women and men in the EU. https://ec.europa.eu/info/sites/info/files/aid_development_cooperation_fundamental_rights/annual_report_ge_2019_en.pdf

European Institute for Gender Equality. (2020). *Gender statistics database*. https://eige.europa.eu/

Eurostat (2020). 8 March 2020: International Women's Day. Only 1 manager out of 3 in the EU is a woman..... even less in senior management positions. https://ec.europa.eu/eurostat/documents/2995521/10474926/3-06032020-AP-EN.pdf/763901be-81b7-ecd6-534e-8a2b83e82934

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175–191. https://doi.org/10.3758/BF03193146

Field, A. (2009). *Discovering statistics using SPSS (and sex and drugs and rock "n" roll)*. Sage Publications. https://us.sagepub.com/en-us/nam/discovering-statistics-using-ibm-spss-statistics/book260423

Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, *11*(2), 77–83. https://doi.org/10.1016/j.tics.2006.11.005

Fraser, G., Osborne, D., & Sibley, C. G. (2015). "We want you in the workplace, but only in a skirt!" Social dominance orientation, gender-based affirmative action and the moderating role of benevolent sexism. *Sex Roles*, *73*(5-6), 231–244. https://doi.org/10.1007/s11199-015-0515-8

Fruhen, L. S., Watkins, C. D., & Jones, B. C. (2015). Perceptions of facial dominance, trustworthiness and attractiveness predict managerial pay awards in experimental tasks. *The Leadership Quarterly*, *26*(6), 1005–1016. https://doi.org/10.1016/j.leaqua.2015.07.001

Galinsky, A. D., Hall, E. V., & Cuddy, A. J. (2013). Gendered races: Implications for interracial marriage, leadership selection, and athletic participation. *Psychological Science*, *24*(4), 498–506. https://doi.org/10.1177/0956797612457783

Gawronski, B., & Hahn, A. (2019). Implicit measures: Procedures, use, and interpretation. In H. Blanton, J. M. LaCroix & G. D. Webster (Eds.), *Frontiers of social psychology. Measurement in social psychology* (pp. 29–55). Routledge/Taylor & Francis Group. https://www.routledge.com/Measurement-in-Social-Psychology/Blanton-M-D/p/book/9781138913240

Gill, R., & Orgad, S. (2015). The confidence cult(ure). *Australian Feminist Studies*, *30*(86), 324–344. https://doi.org/10.1080/08164649.2016.1148001

Glick, P., & Fiske, S. T. (1997). Hostile and benevolent sexism: Measuring ambivalent sexist attitudes toward women. *Psychology of Women Quarterly*, *21*(1), 119–135. https://doi.org/10.1111/j.1471-6402.1997.tb00104.x

Graham, J. R., Harvey, C. R., & Puri, M. (2016). A corporate beauty contest. *Management Science*, *63*(9), 3044–3056. https://doi.org/10.1287/mnsc.2016.2484

Heilman, M. E. (1983). Sex bias in work settings: The Lack of Fit model. *Research in Organizational Behavior*, *5*, 269–298. https://psycnet.apa.org/record/1984-10927-001

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*(4), 657–674. https://doi.org/10.1111/0022-4537.00234

Heilman, M. E., & Caleo, S. (2018). Combatting gender discrimination: A lack of fit framework. *Group Processes & Intergroup Relations*, *21*(5), 725–744. https://doi.org/10.1177/1368430218761587

Heilman, M. E., & Chen, J. J. (2005). Same behavior, different consequences: Reactions to men's and women's altruistic citizenship behavior. *Journal of Applied Psychology*, *90*(3), 431–441. https://doi.org/10.1037/0021-9010.90.3.431

Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks?: The implied communality deficit. *Journal of Applied Psychology*, *92*(1), 81–92. https://doi.org/10.1037/0021-9010.92.1.81

Heilman, M. E., & Saruwatari, L. R. (1979). When beauty is beastly: The effects of appearance and sex on evaluations of job applicants for managerial and nonmanagerial jobs. *Organizational Behavior and Human Performance*, *23*(3), 360–372. https://doi.org/10.1016/0030-5073(79)90003-5

Hentschel, T., Braun, S., Peus, C., & Frey, D. (2018). The communality-bonus effect for male transformational leaders–leadership style, gender, and promotability. *European Journal of Work and Organizational Psychology*, *27*(1), 112–125. https://doi.org/10.1080/1359432X.2017.1402759

Hentschel, T., Heilman, M. E., & Peus, C. V. (2019). The multiple dimensions of gender stereotypes: A current look at men's and women's characterizations of others and themselves. *Frontiers in Psychology*, *10*, 11. https://doi.org/10.3389/fpsyg.2019.00011

Ho, A. K., Sidanius, J., Kteily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., . . . Stewart, A. L. (2015). The nature of social dominance orientation: Theorizing and measuring preferences for

intergroup inequality using the new SDO$_7$ scale. *Journal of Personality and Social Psychology*, *109*(6), 1003–1028. https://doi.org/10.1037/pspi0000033

Horwitz, J. M., Igielnik, R., & Parker, K. (2018). *Women and leadership 2018*. Pew Research Center. https://www.pewsocialtrends.org/2018/09/20/women-and-leadership-2018/

Hosoda, M., Stone-Romero, E. F., & Coats, G. (2003). The effects of physical attractiveness on job-related outcomes: A meta-analysis of experimental studies. *Personnel Psychology*, *56*(2), 431–462. https://doi.org/10.1111/j.1744-6570.2003.tb00157.x

Imhoff, R., Woelki, J., Hanke, S., & Dotsch, R. (2013). Warmth and competence in your face! Visual encoding of stereotype content. *Frontiers in psychology*, *4*, 386. https://doi.org/10.3389/fpsyg.2013.00386

Johnson, J. W. (2000). A heuristic method for estimating the relative weight of predictor variables in multiple regression. *Multivariate Behavioral Research*, *35*(1), 1–19. https://doi.org/10.1207/S15327906MBR3501_1

Johnson, J. W. (2004). Factors affecting relative weights: The influence of sampling and measurement error. *Organizational Research Methods*, *7*(3), 283–299. https://doi.org/10.1177/1094428104266018

Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, *89*(6), 899–913. https://doi.org/10.1037/0022-3514.89.6.899

Jussim, L., Coleman, L. M., & Lerch, L. (1987). The nature of stereotypes: A comparison and integration of three theories. *Journal of Personality and Social Psychology*, *52*(3), 536–546. https://doi.org/10.1037/0022-3514.52.3.536

Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, *137*(4), 616–642. https://doi.org/10.1037/a0023557

Kraha, A., Turner, H., Nimon, K., Zientek, L., & Henson, R. (2012). Tools to support interpreting multiple regression in the face of multicollinearity. *Frontiers in Psychology*, *3*, 44. https://doi.org/10.3389/fpsyg.2012.00044

Leach, C. W., Bilali, R., & Pagliaro, S. (2014). Groups and morality. In M. Mikulincer, P. R. Shaver, J. F. Dovidio, & J. Simpson (Eds.), *APA handbook of personality and social psychology* (Vol. 2: Group and intergroup processes, pp. 123–149). American Psychological Association. ISBN: 978-1-4338-1699-4

Leach, C. W., Carraro, L., Garcia, R. L., & Kang, J. J. (2017). Morality stereotyping as a basis of women's in-group favoritism: An implicit approach. *Group Processes & Intergroup Relations*, *20*(2), 153–172. https://doi.org/10.1177/1368430215603462

Leach, C. W., Ellemers, N., & Barreto, M. (2007). Group virtue: The importance of morality (vs. competence and sociability) in the positive evaluation of in-groups. *Journal of Personality and Social Psychology*, *93*(2), 234–249. https://doi.org/10.1037/0022-3514.93.2.234

Little, A. C., & Roberts, S. C. (2012). Evolution, appearance, and occupational success. *Evolutionary Psychology*, *10*(5), 782–801. https://doi.org/10.1177/147470491201000503

Lorenzo-Seva, U., Ferrando, P. J., & Chico, E. (2010). Two SPSS programs for interpreting multiple regression results. *Behavior Research Methods*, *42*, 29–35. https://doi.org/10.3758/BRM.42.1.29

Lowman, G. H., Harms, P. D., & Mills, M. J. (2019). The influence of job candidates' physical appearance on interview evaluations. *Journal of Personnel Psychology*, *18*(2), 55–70. https://doi.org/10.1027/1866-5888/a000223

Ma, D. S., Correll, J., & Wittenbrink, B. (2015). The Chicago face database: A free stimulus set of faces and norming data. *Behavior Research Methods*, *47*(2), 1122–1135. https://doi.org/10.3758/s13428-014-0532-5

Manganelli, A. M., Bobbio, A., & Canova, L. (2012). Sexism, conservative ideology and attitudes toward women as managers. *Psicologia Sociale*, *7*(2), 241–260. https://doi.org/10.1482/37697

Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. B. (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational Behavior and Human Decision Processes*, *108*(1), 1–13. https://doi.org/10.1016/j.obhdp.2008.04.002

Menegatti, M., Pireddu, S., Crocetti, E., Moscatelli, S., & Rubini, M. (2021). The Ginevra de'Benci Effect: Competence, Morality, and Attractiveness Inferred From Faces Predict Hiring Decisions for Women. *Frontiers in psychology*, *12*, 658424. https://doi.org/10.3389/fpsyg.2021.658424

Mercer. (2020). Let's get real about equality: When women thrive 2020 global report. https://www.mercer.com/our-thinking/next-generation-global-research-when-women-thrive-2020.html

Montoya, A. K. (2019). Moderation analysis in two-instance repeated measures designs: Probing methods and multiple moderator models. *Behavior Research Methods*, *51*(1), 61–82. https://doi.org/10.3758/s13428-018-1088-6

Moscatelli, S., Menegatti, M., Ellemers, N., Mariani, M. G., & Rubini, M. (2020). Men should be competent, women should have it all: Multiple criteria in the evaluation of female job candidates. *Sex Roles*, *83*(5-6), 269–288. https://doi.org/10.1007/s11199-019-01111-2

Nimon, K. F., & Oswald, F. L. (2013). Understanding the results of multiple linear regression: Beyond standardized regression coefficients. *Organizational Research Methods*, *16*(4), 650–674. https://doi.org/10.1177/1094428113493929

Nimon, K., Oswald, F., & Roberts, J. K. (2013). *yhat: Interpreting Regression Effects. R package version 2.0-0*. [Computer software]. https://CRAN.R-project.org/package=yhat

Oh, D., Dotsch, R., Porter, J., & Todorov, A. (2020). Gender biases in impressions from faces: Empirical studies and computational models. *Journal of Experimental Psychology: General*, *149*(2), 323–342. https://doi.org/10.1037/xge0000638

Oliveira, M., Garcia-Marques, T., Dotsch, R., & Garcia-Marques, L. (2019). Dominance and competence face to face: Dissociations obtained with a reverse correlation approach. *European Journal of Social Psychology*, *49*(5), 888–902. https://doi.org/10.1002/ejsp.2569

Oosterhof, N. N., & Todorov, A. (2008). The functional basis of face evaluation. *Proceedings of the National Academy of Sciences*, *105*(32), 11087–11092. https://doi.org/10.1073/pnas.0805664105

Paustian-Underdahl, S. C., & Walker, L. S. (2016). Revisiting the beauty is beastly effect: Examining when and why sex and attractiveness impact hiring judgments. *The International Journal of Human Resource Management*, *27*(10), 1034–1058. https://doi.org/10.1080/09585192.2015.1053963

Petty, R. E., Fazio, R. H., & Briñol, P. (2009). The new implicit measures: An overview. In R. E. Petty, R. H. Fazio & P. Briñol (Eds.), *Attitudes: Insights from the new implicit measures* (pp. 3–18). Psychology Press. https://www.routledge.com/Attitudes-Insights-from-the-New-Implicit-Measures/Petty-Fazio/p/book/9781138882904

Prati, F., Menegatti, M., Moscatelli, S., Kana Kenfack, C. S., Pireddu, S., Crocetti, E., . . . Rubini, M. (2019). Are mixed-gender committees less biased toward female and male candidates? An investigation of competence-, morality-, and sociability-related terms in performance appraisal. *Journal of Language and Social Psychology*, *38*(5-6), 586–605. https://doi.org/10.1177/0261927X19844808

Prentice, D. A., & Carranza, E. (2003). Sustaining cultural beliefs in the face of their violation: The case of gender stereotypes. In M. Schaller & C. S. Crandall (Eds.), *The psychological foundations of culture* (pp. 259–280). Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410608994

Ramati-Ziber, L., Shnabel, N., & Glick, P. (2020). The beauty myth: Prescriptive beauty norms for women reflect hierarchy-enhancing motivations leading to discriminatory employment practices. *Journal of Personality and Social Psychology*, *119*(2), 317–343. https://doi.org/10.1037/pspi0000209

R Core Team (2014). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. http://www.R-project.org/

Rezlescu, C., Duchaine, B., Olivola, C. Y., & Chater, N. (2012). Unfakeable facial configurations affect strategic choices in trust games with or without information about past behavior. *PLoS One*, *7*, e34293(3), https://doi.org/10.1371/journal.pone.0034293

Rollero, C., Peter, G. & Tartaglia, S. (2014). Psychometric properties of short versions of the Ambivalent Sexism Inventory and Ambivalence Toward Men Inventory. T*PM-Testing, Psychometrics, Methodology in Applied Psychology*, *21*(2), 149–159. https://psycnet.apa.org/record/2014-25613-003

Rudman, L. A., & Glick, P. (1999). Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology*, *77*(5), 1004–1010. https://doi.org/10.1037/0022-3514.77.5.1004

Rudman, L. A., Moss-Racusin, C. A., Phelan, J. E., & Nauts, S. (2012). Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders. *Journal of Experimental Social Psychology*, *48*(1), 165–179. https://doi.org/10.1016/j.jesp.2011.10.008

Rule, N. O., & Ambady, N. (2008). The face of success: Inferences from chief executive officers' appearance predict company profits. *Psychological Science*, *19*(2), 109–111. https://doi.org/10.1111/j.1467-9280.2008.02054.x

Rule, N. O., & Ambady, N. (2009). She's got the look: Inferences from female chief executive officers' faces predict their success. *Sex Roles*, *61*(9-10), 644–652. https://doi.org/10.1007/s11199-009-9658-9

Russell, R. F., & Gregory Stone, A. (2002). A review of servant leadership attributes: Developing a practical model. *Leadership & Organization Development Journal*, *23*(3), 145–157. https://doi.org/10.1108/01437730210424

Salkind, N. J. (2010). *Encyclopedia of research design*, Vol. *1–0*. SAGE Publications, Inc. https://doi.org/10.4135/9781412961288

Schein, V. E. (1973). The relationship between sex role stereotypes and requisite management characteristics. *Journal of Applied Psychology*, *57*(2), 95–100. https://doi.org/10.1037/h0037128

Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, *57*(4), 675–688. https://doi.org/10.1111/0022-4537.00235

Sesko, A. K., & Biernat, M. (2010). Prototypes of race and gender: The invisibility of Black women. *Journal of Experimental Social Psychology*, *46*(2), 356–360. https://doi.org/10.1016/j.jesp.2009.10.016

Shaughnessy, B. A., Mislin, A. A., & Hentschel, T. (2015). Should he chitchat? The benefits of small talk for male versus female negotiators. *Basic and Applied Social Psychology*, *37*(2), 105–117. https://doi.org/10.1080/01973533.2014.999074

Silberzahn, R., & Menges, J. (2016). Reading the face of a leader: Women with low facial masculinity are perceived as competitive. *Academy of Management Discoveries*, *2*(3), 272–289. https://doi.org/10.5465/amd.2014.0070

Sutherland, C. A. M., Liu, X., Zhang, L., Chu, Y., Oldmeadow, J. A., & Young, A. W. (2018). Facial first impressions across culture: Data-driven modeling of Chinese and British perceivers' unconstrained facial impressions. *Personality and Social Psychology Bulletin*, *44*(4), 521–537. https://doi.org/10.1177/0146167217744194

Sutherland, C. A. M., Oldmeadow, J. A., Santos, I. M., Towler, J., Michael Burt, D., & Young, A. W. (2013). Social inferences from faces: Ambient images generate a three-dimensional model. *Cognition*, *127*(1), 105–118. https://doi.org/10.1016/j.cognition.2012.12.001

Sutherland, C. A. M., Oldmeadow, J. A., & Young, A. W. (2016). Integrating social and facial models of person perception: Converging and diverging dimensions. *Cognition*, *157*, 257–267. https://doi.org/10.1016/j.cognition.2016.09.006

Sutherland, C. A. M., Rhodes, G., Burton, N. S., & Young, A. W. (2020). Do facial first impressions reflect a shared social reality? *British Journal of Psychology*, *111*(2), 215–232. https://doi.org/10.1111/bjop.12390

Sutherland, C. A. M., Young, A. W., Mootz, C. A., & Oldmeadow, J. A. (2015). Face gender and stereotypicality influence facial trait evaluation: Counter-stereotypical female faces are

negatively evaluated. *British Journal of Psychology*, *106*(2), 186–208. https://doi.org/10.1111/bjop.12085

Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, *308*(5728), 1623–1626. https://doi.org/10.1126/science.1110589

Todorov, A., Olivola, C. Y., Dotsch, R., & Mende-Siedlecki, P. (2015). Social attributions from faces: Determinants, consequences, accuracy, and functional significance. *Annual Review of Psychology*, *66*, 519–545. https://doi.org/10.1146/annurev-psych-113011-143831

Von Stockhausen, L., Koeser, S., & Sczesny, S. (2013). The gender typicality of faces and its impact on visual processing and on hiring decisions. *Experimental Psychology*, *60*(6), 444–452. https://doi.org/10.1027/1618-3169/a000217

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, *34*(1), 89–126. https://doi.org/10.1177/0149206307308913

Watkins, L. M., & Johnston, L. (2000). Screening job applicants: The impact of physical attractiveness and application quality. *International Journal of Selection and Assessment*, *8*(2), 76–84. https://doi.org/10.1111/1468-2389.00135

Williams, M. J., & Tiedens, L. Z. (2016). The subtle suspension of backlash: A meta-analysis of penalties for women's implicit and explicit dominance behavior. *Psychological Bulletin*, *142*(2), 165–197. https://doi.org/10.1037/bul0000039

Wolf, N. (1990). *The beauty myth: How images of beauty are used against women*. Morrow.

Woods, S. A., Ahmed, S., Nikolaou, I., Costa, A. C., & Anderson, N. R. (2020). Personnel selection in the digital age: A review of validity and applicant reactions, and future research challenges. *European Journal of Work and Organizational Psychology*, *29*(1), 64–77. https://doi.org/10.1080/1359432X.2019.1681401

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Supporting Information

The following supporting information may be found in the online edition of the article:

Supinfo S1. Additional Analyses.

Supinfo S2. Pre-study dataset

Supinfo S3. Study 1-3 dataset

Appendix 1:

Job description used in Studies 1 and 2

Area sales manager

- Base salary: £50,000 per annum
- Up to 20% bonus for top performance
- Benefits: Company Car, Laptop, and Phone
- Wide range of flexible benefits

The role

A large international brand is looking for a person to manage a team of sales representatives. The successful candidate will have strong leadership skills and be responsible for developing an effective strategy to achieve a significant growth in sales within their area. This role is perfect for someone who is sales-driven, is passionate about customer management, and is looking for the next step in their career.

Responsibilities

- To lead and supervise a team of 30 sales representatives
- To increase current sales levels
- To deal with competitors
- To resolve contractual and commercial problems

Key skills

- Excellent leadership skills
- Ability to formulate strategies and concepts
- Ability to deliver results and meet customer expectations
- Solid organizational and communication skills.

Job description used in Study 3

Finance manager

- Base salary: £50,000 per annum
- Up to 20% bonus for top performance
- Benefits: Company Car, Laptop, and Phone
- Wide range of flexible benefits

The role

A large international company is looking to appoint a Finance Manager to lead a team of management accountants. The successful candidate will have to display strong leadership. They will be responsible for partnering operational and product leaders across multiple businesses to provide financial support in all their business decisions and future financial outlook. This role offers a breadth of responsibilities in a multidisciplinary and multinational finance operation and is perfect for someone who is looking for the next step in their career.

Responsibilities

- To lead and supervise a team of 30 management accountants
- To identify and mitigate financial risks in the business
- To have oversight over the preparation of financial analysis for management and other stakeholders

- To have oversight over the preparation and review of monthly balance sheet account reconciliations.

Key skills

- Excellent leadership skills
- Ability to formulate strategies and manage key stakeholders
- Ability to deliver results and meet shareholder expectations
- Solid organizational skills and confident communicator.