

# Feminine perceptions of Kamala Harris positively relate to evaluations of her candidacy

Brittany S. Cassidy  | Hayley A. Liebenow

Department of Psychology, University of North Carolina at Greensboro, 296 Eberhart, Greensboro, NC, USA

## Correspondence

Brittany S. Cassidy, Department of Psychology, University of North Carolina at Greensboro, 296 Eberhart, PO Box 26180, Greensboro, NC 27412, USA.  
Email: [bscassid@uncg.edu](mailto:bscassid@uncg.edu)

## Abstract

When selecting a face best resembling a male political candidate, the extent to which selected faces look consistent with positive category stereotypes relates to more favorable candidate evaluations. Because people more positively evaluate feminine versus masculine female faces and also evaluate them as having more stereotypically feminine traits, representing female candidate faces as more feminine may produce a similar relationship. This possibility is examined in the context of the 2020 election in which Kamala Harris became the first woman elected to the Vice Presidency. People evaluated feminine versus masculine representations of Harris's face as reflecting more stereotypically feminine, but fewer stereotypically masculine, traits. People selecting a more feminine representation of Harris's face as best resembling her more favorably evaluated her candidacy even when controlling for explicit evaluations of her gender stereotypicality. This relationship was stronger when Harris's agentic versus communal traits were emphasized. Further, people selecting feminine representations were more ideologically liberal. These findings replicate and extend past work using a real example of a woman on the national political stage. People may have favorably evaluated Kamala Harris in part due to having more feminine representations of her face, thus identifying a novel potential pathway to her historic accomplishment.

## KEYWORDS

2020 election, face perception, gender stereotypes ideology, Kamala Harris

## FEMININE PERCEPTIONS OF KAMALA HARRIS POSITIVELY RELATE TO EVALUATIONS OF HER CANDIDACY

Although women represent half of the United States population, they are underrepresented in government. Reflecting this disparity, women held 26.54% of seats in the 117th United States Congress. Increasing the number of women in government is important because it increases women's political engagement (Atkeson, 2003) and positivity about the political process (Karp & Banducci, 2008). The most visible offices in the United States (e.g. the Presidency and Vice-Presidency), however, have been male-dominated, posing an obstacle for women who seek them (Smith et al., 2007). Attaining better representation requires identifying factors affecting evaluations of women seeking such offices. The 2020 election was historic in that Kamala Harris became the first woman elected to the Vice Presidency. Examining evaluations of Harris provides an ecologically valid opportunity to examine such factors. How people represent candidate faces is one factor affecting their evaluations (e.g. Young et al., 2014). For example, endorsing pictures of Barack Obama with lighter skin tones as best representing him related to more intentions to vote for him (Caruso et al., 2009), plausibly because of the positive stereotypes associated with lighter skin (Maddox & Gray, 2002). Because people more positively evaluate feminine versus masculine female faces (Sutherland et al., 2015), endorsing feminine representations of Harris's face may relate to more positive evaluations of her. The current study examined if and when this relationship emerges and explored what might contribute to gender representations of Harris's face.

## WILL REPRESENTATIONS OF KAMALA HARRIS'S FACE RELATE TO EVALUATIONS OF HER?

Stereotypic expectations about the traits that women should have are pervasive in American society. Reflecting traditional gender roles (Wood & Eagly, 2002), whereas people expect men to have agentic traits consistent with leadership, they expect women to have communal traits consistent with maintaining relationships (Abele & Wojciszke, 2007; Bem, 1974; Prentice & Carranza, 2002). Fundamental to social perception (Fiske et al., 2002), agentic and communal traits are proposed to reflect, respectively, masculinity and femininity (Martin & Slepian, 2020). Relevant here, stereotypic expectations that women should be communal affect how people evaluate female faces (e.g. Oh, Buck, et al., 2019).

People have more positive evaluations of feminine versus masculine female faces (Oh, Dotsch, et al., 2019; Sutherland et al., 2015). Expectations of women drive these more positive evaluations. Showing feminine faces to align with stereotypic expectations, people evaluate feminine versus masculine female faces as more communal (Walker & Wanke, 2017; Wen et al., 2020). Gender stereotypes are also reflected in expectations for how female faces look. For example, female language teachers' versus physics teachers' face are represented as more feminine (Degner et al., 2019), consistent with perceptions of STEM fields as un-communal (Brown et al., 2015). Directly relevant here, feminine facial cues have positive consequences for female political candidates (e.g. Carpinella & Johnson, 2016; Carpinella et al., 2016; Ditonto & Mattes, 2018). People have higher voting intentions, for example, toward female candidates with more versus less feminine faces (Hehman et al., 2014). Relatedly, placing female candidates in less feminine visual contexts

reduces their viability (Bauer & Carpinella, 2018). These findings suggest that people perceive feminine female faces as reflecting the communal traits expected of women and that people behave more favorably toward female faces reflecting femininity.

Variations in how people represent real candidate faces also have implications for evaluations. People representing Mitt Romney's face as more trustworthy, for example, had more support for him in 2012 (Young et al., 2014). Here, we expected that people with more feminine representations of Kamala Harris's face would have more positive evaluations of her before the 2020 election. Such a relationship would extend work showing feminine female faces to elicit positive evaluations (Sutherland et al., 2015) by showing that variability in representations of the same female face's femininity produce a conceptually similar relationship. It would also align with work showing that representing candidate faces consistently with positive category stereotypes relates to favorable candidate outcomes (Caruso et al., 2009) and that masculine descriptions of Hillary Clinton related to lower support for her in 2016 (Conroy et al., 2020). Importantly, identifying this relationship would highlight an understudied factor contributing to variability in evaluations of real female political candidates.

Although feminine facial cues suggest the communal expectations of the female gender role (Walker & Wanke, 2017; Wen et al., 2020), other features also fulfill expectations of that role (e.g. mannerisms; Eagly & Karau, 2002). Work relating gender stereotypicality to candidate evaluations has thus often measured overall stereotypicality (e.g. Gervais & Hillard, 2011). Stereotypes rooted in facial cues, however, persistently affect many decisions despite other available evaluative information (Jaeger et al., 2020). To identify unique effects of gender representations of Harris's face on evaluations, we examined this relationship controlling for evaluations of her overall gender stereotypicality.

## **WHEN WILL REPRESENTATIONS OF KAMALA HARRIS'S FACE RELATE TO EVALUATIONS OF HER?**

If feminine representations of Harris's face relate to more positive evaluations of her, an open question regards what factors affect that relationship. Role congruity theory posits that aspiring female leaders experience prejudice because the agentic traits expected of leaders are inconsistent with the communal traits expected of women (Eagly & Karau, 2002). In turn, agentic female candidates (e.g. Okimoto & Brescoll, 2010) are often perceived as insufficiently communal (e.g. Moss-Racusin et al., 2012; Rudman & Glick, 2001). Because appearance and behavioral information combine to affect impressions (e.g. Shen et al., 2020), we examined whether emphasizing Harris's agentic or communal traits moderated the expected positive relationship between feminine representations of her face and evaluations of her.

For women who, like Harris, have shown success in top leadership positions, agency and communion are not incompatible (Eagly & Carli, 2003). Rather, people can perceive women successful in top male-dominated positions as agentic and communal, eliciting an evaluative advantage (Rosette & Tost, 2010). Being represented as having feminine facial characteristics associated with communal traits (Walker & Wanke, 2017) may thus advantage agentic women seeking male-dominated positions. Indeed, people prefer feminine versus masculine female faces for military leadership roles (Korenman et al., 2019). In complement, we expected more feminine representations of Harris's face to more strongly relate to positive evaluations of her when emphasizing her agentic versus communal traits. Whereas emphasizing Harris's agentic traits would fulfill agentic expectations of the leadership role, representing Harris's face as feminine would fulfill communal

expectations of the female gender role (e.g. Wen et al., 2020), potentially providing an evaluative advantage (Rosette & Tost, 2010). At first blush, one might also expect an evaluative advantage when emphasizing Harris's communal traits and representing her face as more masculine. However, this cue combination does not complement work showing negative evaluations of women with masculine facial characteristics (Sutherland et al., 2015). This latter point suggests evaluative advantages from agentic and communal facial and behavioral cues may be specific to certain cue combinations. However, facial stereotypes are so persistent (e.g. Jaeger et al., 2019) that they often retain influence despite information that might be expected to mitigate their effects (Jaeger et al., 2020). Thus, it also seemed plausible that more feminine representations of Harris's face would positively relate to evaluations of her irrespective of emphasizing agentic or communal traits.

## WHY WILL GENDERED REPRESENTATIONS OF KAMALA HARRIS'S FACE EMERGE?

Whereas identifying a positive relationship between representations of Harris's face and evaluations is important to characterize impressions of female candidates, identifying what underlies those representations is also important. In exploratory analyses, we assessed three potential factors. First, we explored political ideology given work showing that it biases people's representations of ideologically similar candidate faces to allow them to be more positively perceived (Caruso et al., 2009). Having a more liberal ideology may thus positively relate to feminine representations of Harris's face because she is a Democrat. Second, we explored sexism, which contributed to negative outcomes for Hillary Clinton in 2008 (Gervais & Hillard, 2011) and 2016 (Ratliff et al., 2019). Whereas hostile sexists negatively characterize women to maintain traditional gender roles, benevolent sexists maintain these roles through positive characterizations (e.g. women need men's help; Glick & Fiske, 1996). As a woman aspiring to a male-dominated office, Harris countered the traditional female gender role. Reflecting this violation, more hostile and benevolent sexism may negatively relate to feminine representations of Harris's face. Third, we explored gender role beliefs given that shifting attitudes about traditional gender roles may reduce negative evaluations of women who counter them (Baber & Tucker, 2006). Here, we explored whether having more traditional gender role beliefs negatively related to feminine representations of Harris's face.

## RESEARCH OVERVIEW

The current research identified whether, consistent with work on positive facial stereotypes and candidate evaluations (e.g. Caruso et al., 2009), feminine representations of Harris's face related to more positive evaluations of her. To better characterize this expected relationship, we examined whether emphasizing Harris's agentic versus communal traits strengthened it. We also explored three factors potentially related to gender representations. Finally, we report analyses examining evaluated gender stereotypicality. These analyses provide context as to whether expected gender representation effects are distinct from more oft-studied gender stereotypicality effects on evaluations of women (e.g. Gervais & Hillard, 2011).

## METHOD

### Participants

We estimated a modest correlation between gender representations of Kamala Harris and evaluations of her. A power analysis (Faul et al., 2007) using  $r = .20$  and  $\alpha = .05$  targeted 193 participants for 80% power to detect a relationship between gender representations of Harris and such evaluations. A second power analysis using  $f^2 = .085$  (between a small and medium sized effect) targeted 176 participants to detect a significant regression model with seven predictors at 80% power and  $\alpha = .05$ . We oversampled to account for anticipated exclusions and to increase the likelihood of obtaining a wide range of political ideologies.

Overall, 275 people recruited from MTurk participated on October 21, 2020. We excluded six participants for indicating that they did not know what Harris looked like prior to the study, one for entering an incorrect survey code, and one for failing an attention check, yielding an analyzed sample of 267 participants ( $M_{age} = 39.94$  years,  $SD = 12.07$ ;  $M_{years\ of\ education} = 15.52$ ,  $SD = 2.14$ ; 128 female). Two-hundred eight participants identified as White, 31 as Black, 20 as Asian, six as multi-racial, one as American Indian/Alaska native, and one reported having an unknown race. The University of North Carolina at Greensboro IRB approved this work. All participants provided informed consent. We report all measures, conditions, data exclusions, and sample size justifications.<sup>1</sup>

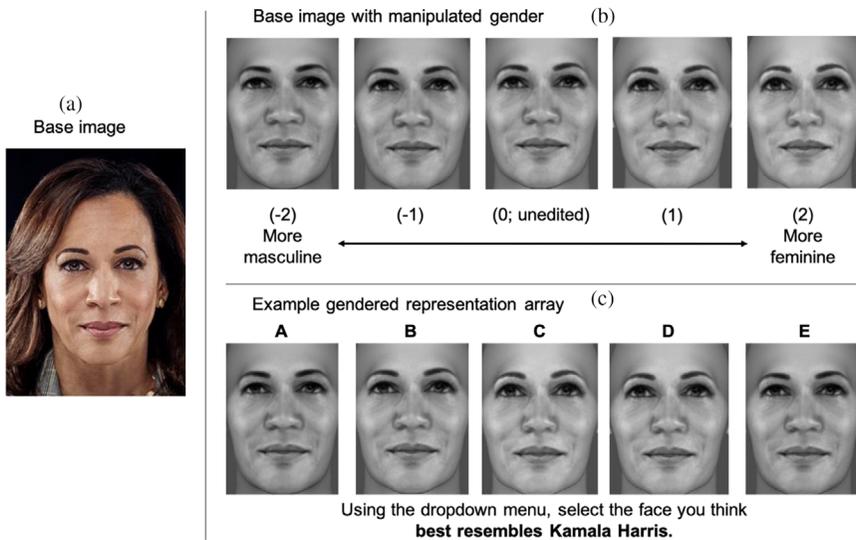
### Stimuli

To measure gender representations of Harris, we obtained a base image from [www.cnn.com](http://www.cnn.com) (Figure 1(a)) and loaded the image into FaceGen (<http://facegen.com>), a software used in related work to manipulate faces on different dimensions (e.g. Oh, Dotsch, et al., 2019). The face's gender fell at the midpoint of the gender sliding scale within FaceGen. We manipulated this face to be more masculine or feminine by creating four new images. We saved images after shifting the gender from the midpoint of the sliding scale to, respectively, the male tick mark, midway to the male tick mark, midway to the female tick mark, and the female tick mark. Note that shifting the gender sliding scale did not cause similarly substantial shifts in the sliding scales for race. However, manipulating gender may affect perceptions of race to the extent that race is gendered (Johnson et al., 2012). Resulting images were grayscaled and cropped to remove ears and features beyond the hairline (Figure 1(b)).

### Verifying stereotypic trait endorsements of the gendered face representations

In a pilot study, we verified that people evaluated feminine versus masculine representations of Harris's face as being more communal and less agentic. Participants who did not complete the main study ( $N = 100$ ,  $M_{age} = 38.61$  years,  $SD = 11.79$ ;  $M_{years\ of\ education} = 15.14$ ,  $SD = 2.05$ ; 42 female; 89 White, six Asian, two Black, and three multi-racial) saw the most masculine and feminine

<sup>1</sup> Data and analytic code for the main study can be accessed at <https://osf.io/gcp62/>. This work was not pre-registered.



**FIG 1** Base image of Kamala Harris (a) used to create faces manipulated to range from more masculine to more feminine (b). Example gender representation array shown during the study (c) [Color figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

images of Harris's face in a random order. Participants evaluated each face on agentic (assertive, ambitious, determined, independent, persistent, and strong) and communal (caring, compassionate, cooperative, friendly, sympathetic, and warm) traits presented in a random order using a scale ranging from 1 (not at all) to 7 (very). These agentic and communal traits (e.g. Diehl et al., 2008) have been widely used in related work (e.g. Abele, 2003; Bruckmuller & Abele, 2013), including work on female political candidates (e.g. Gervais & Hillard, 2011). Participants were asked to select "4" for two additional items as attention checks, which they all passed.

Responses to the six agentic and six communal traits were averaged to create composite agentic and communal evaluations for each representation (Cronbach's  $\alpha > 0.89$ ). Composite evaluations were entered into a 2 (Representation: masculine, feminine)  $\times$  2 (Trait: agentic, communal) within-subjects ANOVA. Qualifying a main effect of Trait,  $F(1, 99) = 7.37, p = .008, \eta_p^2 = .07$ , was the expected Representation  $\times$  Trait interaction,  $F(1, 99) = 12.75, p < .001, \eta_p^2 = .11$ . Replicating past work (Walker & Wanke, 2017; Wen et al., 2020), people evaluated the feminine ( $M = 4.86, SD = 1.22$ ) versus masculine ( $M = 4.61, SD = 1.20$ ) representation as more communal,  $t(99) = 2.48, p = .02, d = 0.25$ . They evaluated the feminine ( $M = 4.94, SD = 1.08$ ) versus masculine ( $M = 5.28, SD = 0.95$ ) representation as less agentic,  $t(99) = 3.54, p < .001, d = 0.38$ . There was no main effect of Representation,  $F(1, 93) = 0.56, p = .46, \eta_p^2 = .01$ .

## Procedure

Participants in the main study were told it was about making evaluations about familiar others and that they would make evaluations about Kamala Harris. They were told they would read information about her, choose a picture that best resembled her, make evaluations about her, and complete some questionnaires. Before continuing, participants indicated whether they knew what Harris looked like (yes or no). We excluded six participants responding "no" from analyses.

Participants were randomly assigned to read information emphasizing agentic ( $N = 117$ ) or communal ( $N = 150$ ) traits. Male and female participants were evenly distributed across versions,  $\chi^2(1) = 0.79, p = .38$ . In both versions, participants read this text: “In August 2020, Joe Biden announced Kamala Harris as his running mate, making her the third female vice-presidential candidate in United States history. In a recent nationwide survey, people rated Kamala Harris on a variety of personality traits. Below, you will see traits on which Kamala Harris was rated very highly. These are traits that people strongly believe Kamala Harris possesses.” In the agentic version, participants read, “People believe that Kamala Harris is assertive, ambitious, determined, independent, persistent, and strong.” In the communal version, participants read, “People believe that Kamala Harris is caring, compassionate, cooperative, friendly, sympathetic, and warm.” These traits were used in the above-described pilot study.

Directly below, participants saw the five images of Harris in a random order (Figure 1(c)). Participants used a dropdown menu to select the face best resembling her. Values assigned to the faces ranged from  $-2$  (the most masculine face) to  $2$  (the most feminine face) in increments of one. Selected faces reflected participants’ representations of Harris’s gender ( $M = 0.24, SD = 1.45$ ). This interpretation is consistent with work measuring how people visualize characteristics of both novel group members (e.g. Cassidy & Krendl, 2018; Cole et al., 2016) and familiar faces (e.g. Caruso et al., 2009).

## Evaluations of Kamala Harris

Of interest were different evaluations related to Harris. The evaluations were grouped as listed and were randomly presented after participants selected the face best resembling her.

### Gender stereotypicality

One item measured Harris’s evaluated gender stereotypicality (“Relative to other women, how feminine or masculine do you find Kamala Harris?” rated from  $-3$  [very feminine] to  $3$  [very masculine]). We reverse coded this item ( $M = 0.56, SD = 1.39$ ) so it would be interpreted in the same direction as the gender representation item.

### Impression positivity

Two randomly presented items measured impression positivity toward Harris (“Overall, how likable do you find Kamala Harris to be?” rated from  $1$  [not at all] to  $7$  [extremely]; “Overall, how negative or positive is your impression of Kamala Harris?” rated from  $1$  [extremely negative] to  $7$  [extremely positive]). Responses to these items were averaged (Cronbach’s  $\alpha = .97$ ) to create a composite impression positivity score ( $M = 4.47, SD = 2.08$ ).

### Support and expected success

One item measured support for Harris’s candidacy (“Do you support Kamala Harris’s candidacy for Vice President?” rated from  $1$  [not at all] to  $7$  [completely]; [ $M = 4.66, SD = 2.43$ ]). Two items

measured expectations for Harris's success ("How successful do you think Kamala Harris would be as Vice President?" rated from 1 [not at all] to 7 [extremely]; relative to other male Vice Presidents, how successful do you think Kamala Harris would be as Vice President?" rated from 1 [not at all] to 7 [extremely]). Items were presented at random. Responses to the success-related items were averaged (Cronbach's  $\alpha = .97$ ) to create a composite expected success score ( $M = 4.84$ ,  $SD = 2.03$ ).

## Voting likelihood

Like past work (Gervais & Hillard, 2011), we measured voting likelihood for Harris over three randomly presented items ("Assuming it were possible, what would your likelihood of voting for Kamala Harris be for [Senator/Vice President/President]?" rated from 1 [very unlikely] to 7 [very likely]). Responses to these items were averaged (Cronbach's  $\alpha = .95$ ) to create a composite voting likelihood score ( $M = 4.38$ ,  $SD = 2.38$ ).

As an attention check, participants next responded whether they evaluated Kamala Harris or Hillary Clinton. One participant was excluded for responding Clinton.

## Exploring gender representations of Kamala Harris

Participants next completed three questionnaires measuring their political ideology, sexism, and social role endorsement in a random order to measure constructs potentially related to their gender representations of Harris's face.

### Political ideology

Participants indicated their political ideology over four items (overall, economic issues, social issues, and foreign policy issues) on a scale ranging from 1 (extremely conservative) to 9 (extremely liberal), similar to past work gauging political ideology (Inbar & Lammers, 2012). Responses to these items were averaged (Cronbach's  $\alpha = .95$ ) to create a composite political ideology score ( $M = 5.71$ ,  $SD = 2.26$ ).

### Sexism

Participants completed the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) to measure different aspects of their sexism. The ASI measures hostile (e.g. "Women exaggerate problems they have at work") and benevolent (e.g. "A good woman should be set on a pedestal by her man") components of sexism on a scale ranging from 0 (disagree strongly) to 5 (agree strongly). Higher scores indicate more hostile and benevolent sexism. Responses to items measuring hostile (Cronbach's  $\alpha = .94$ ;  $M = 1.55$ ,  $SD = 1.24$ ) and benevolent (Cronbach's  $\alpha = .90$ ;  $M = 2.00$ ,  $SD = 1.18$ ) sexism were reliable.

## Gender role beliefs

Participants completed the Social Roles Questionnaire (SRQ; Baber & Tucker, 2006). The SRQ measures gender-transcendent (e.g. “Tasks around the house should not be assigned by sex”) and gender-linked (e.g. “For many important jobs, it is better to choose men instead of women”) beliefs about social roles. Participants indicated their agreement with each item on a scale ranging from 0% to 100% in 10% increments. We reverse-coded gender-transcendent items so they could be interpreted like the gender-linked items (i.e. higher values measured non-transcendent gender beliefs). Higher scores on both subscales thus reflect more traditional gender role beliefs. Responses to items measuring non-transcendent gender beliefs (Cronbach’s  $\alpha = .83$ ;  $M = 18.82$ ,  $SD = 20.48$ ) and gender-linked beliefs (Cronbach’s  $\alpha = .89$ ;  $M = 33.12$ ,  $SD = 24.21$ ) were reliable.

After completing the questionnaires, participants provided demographic information.

## RESULTS

### Describing gender representations of Kamala Harris

We first characterized gender representations of Harris (i.e. values of selected faces). A one sample t-test against the scale midpoint (0) showed that representations were more feminine than the uploaded face ( $M = 0.24$ ,  $SD = 1.45$ ),  $t(266) = 2.65$ ,  $p = .008$ ,  $d = 0.16$ . Trait emphasis did not affect representations ( $M_{agentic} = 0.19$ ,  $SD_{agentic} = 1.43$ ;  $M_{communal} = 0.27$ ,  $SD_{communal} = 1.48$ ),  $t(265) = 0.48$ ,  $p = .64$ ,  $d = 0.06$ . Although not of primary interest, we examined the evaluated gender stereotypicality of Harris. A one sample t-test against the scale midpoint (0) showed more feminine evaluated stereotypicality ( $M = 0.56$ ,  $SD = 1.39$ ),  $t(266) = 6.55$ ,  $p < .001$ ,  $d = 0.40$ . Trait emphasis did not affect evaluated gender stereotypicality ( $M_{agentic} = 0.55$ ,  $SD_{agentic} = 1.37$ ;  $M_{communal} = 0.57$ ,  $SD_{communal} = 1.42$ ),  $t(265) = 0.11$ ,  $p = .91$ ,  $d = 0.01$ . Gender representations and evaluated gender stereotypicality were not significantly correlated,  $r(265) = .04$ ,  $p = .54$ .

### Testing contributions of representations of Kamala Harris to evaluations of her

Our primary goal was to examine gender representation effects on evaluations of Harris. After examining preliminary correlations (Table 1), we examined contributions in four regressions assessing effects on the different evaluations.<sup>2</sup> In a first step, each evaluation was regressed on standardized gender representation, standardized evaluated gender stereotypicality, and the interaction term. To determine if relationships varied by trait emphasis, trait emphasis ( $agentic = -1$

<sup>2</sup> A linear mixed effects model regressing the four evaluations per participant on gender representations, evaluated gender stereotypicality, and the interaction term, and treating participant as a random effect, identified positive effects of gender representation,  $b = 0.40$ ,  $SE = 0.12$ ,  $t = 3.29$ ,  $p = .001$ , and evaluated gender stereotypicality,  $b = 0.70$ ,  $SE = 0.12$ ,  $t = 5.75$ ,  $p < .001$ . Entering trait emphasis and its interactions explained more variance than the first model,  $\chi^2(4) = 11.65$ ,  $p = .02$ . Representation,  $b = 0.46$ ,  $SE = 0.12$ ,  $t = 3.78$ ,  $p < .001$ , and evaluated stereotypicality effects remained,  $b = 0.66$ ,  $SE = 0.12$ ,  $t = 5.32$ ,  $p < .001$ , and an interaction between gender representation and trait emphasis emerged,  $b = -0.29$ ,  $SE = 0.12$ ,  $t = 2.37$ ,  $p = .02$ . We made an a priori decision to report results for the four evaluations separately for completeness and transparency. Note that the four separate models were all significant at an alpha of .0125 to correct for multiple comparisons. All but two predicted coefficients were significant using this alpha.

**TABLE 1** Correlations between gendered perceptions and evaluations overall ( $N = 267$ ) and by agentic ( $N = 117$ ) and communal ( $N = 150$ ) trait emphases

Gendered perception	Impression positivity	Support	Expected success	Voting likelihood
<i>Overall</i>				
Representation	.21**	.19**	.22**	.18**
Evaluated Stereotypicality	.35**	.31**	.35**	.27**
<i>Agentic</i>				
Representation	.39**	.33**	.37**	.36**
Evaluated Stereotypicality	.24**	.21*	.23*	.16
<i>Communal</i>				
Representation	.08	.10	.12	.06
Evaluated Stereotypicality	.43**	.38**	.45**	.35**

\*indicates  $p < .05$ . \*\*indicates  $p < .01$ .

and communal = 1) and its interactions were entered in a second step. Exploratory third models including participant gender (male = -1 and female = 1) and its interactions did not explain more variance than the second models,  $F_s < 1.59$ ,  $p_s > .13$ .

## Impression positivity

The first model was significant,  $F(3, 263) = 17.00$ ,  $p < .001$ ,  $R^2 = .16$ . More feminine representations,  $b = 0.40$ ,  $SE = 0.12$ ,  $t = 3.35$ ,  $p < .001$ , and evaluated stereotypicality,  $b = 0.72$ ,  $SE = 0.12$ ,  $t = 6.10$ ,  $p < .001$ , related to more impression positivity.

The second model explained more variance than the first,  $F(4, 259) = 2.88$ ,  $p = .02$ ,  $R^2_{change} = .04$ . The gender representation and stereotypicality effects remained significant. An interaction emerged between gender representation and trait emphasis (Figure 2a),  $b = -0.30$ ,  $SE = 0.12$ ,  $t = 2.59$ ,  $p = .01$ . We then assessed representation effects in each emphasis. As expected, more feminine representations related to more impression positivity given the agentic,  $b = 0.76$ ,  $SE = 0.18$ ,  $t = 4.22$ ,  $p < .001$ , but not the communal,  $b = 0.15$ ,  $SE = 0.15$ ,  $t = 0.99$ ,  $p = .32$ , emphasis. A marginal interaction emerged between evaluated gender stereotypicality and trait emphasis,  $b = 0.23$ ,  $SE = 0.12$ ,  $t = 1.98$ ,  $p = .05$ . Surprisingly, feminine evaluated stereotypicality more positively related to impression positivity given the communal,  $b = 0.90$ ,  $SE = 0.15$ ,  $t = 5.92$ ,  $p < .001$ , versus the agentic,  $b = 0.43$ ,  $SE = 0.18$ ,  $t = 2.36$ ,  $p = .02$ , emphasis. See Table 2a for coefficient details.

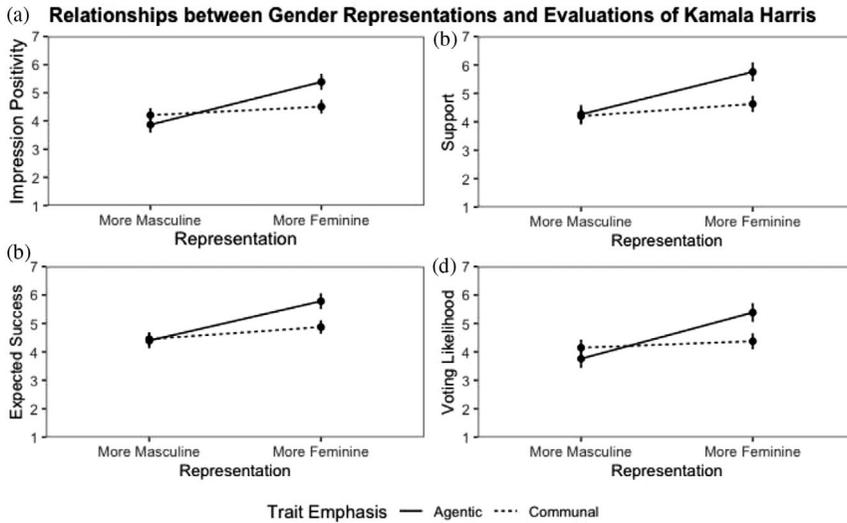
## Candidacy support

The first model was significant,  $F(3, 263) = 12.96$ ,  $p < 0.001$ ,  $R^2 = .13$ . More feminine representations,  $b = 0.42$ ,  $SE = 0.14$ ,  $t = 3.01$ ,  $p < 0.001$ , and evaluated stereotypicality,  $b = 0.74$ ,  $SE = 0.14$ ,  $t = 5.25$ ,  $p < .001$ , related to more support.

The second model explained more variance than the first,  $F(4, 259) = 2.61$ ,  $p = .04$ ,  $R^2_{change} = .03$ . The gender representation and stereotypicality effects remained significant. The interaction

**TABLE 2** Regression summaries for evaluations of Kamala Harris and her candidacy by gendered perceptions and trait emphasis

Step 1	Impression Positivity			Support			Expected Success			Voting Likelihood		
	<i>b</i> (SE)	<i>t</i>	<i>p</i>	<i>b</i> (SE)	<i>t</i>	<i>p</i>	<i>b</i> (SE)	<i>t</i>	<i>p</i>	<i>b</i> (SE)	<i>t</i>	<i>p</i>
Representation	0.40 (0.12)	3.35	< .001	0.42 (0.14)	3.01	.002	0.40 (0.11)	3.54	< .001	0.39 (0.14)	2.85	.005
Evaluated Stereotypicality	0.72 (0.12)	6.10	< .001	0.74 (0.14)	5.25	< .001	0.71 (0.11)	6.27	< .001	0.65 (0.14)	4.68	< .001
Representation * Evaluated Stereotypicality	-0.11 (0.11)	0.99	.32	-0.13 (0.13)	1.00	.32	-0.15 (0.11)	1.37	.17	-0.19 (0.13)	1.40	.16
<b>Step 2</b>												
Representation	0.46 (0.12)	3.86	< .001	0.48 (0.14)	3.42	< .001	0.45 (0.11)	3.98	< .001	0.46 (0.14)	3.34	< .001
Evaluated Stereotypicality	0.67 (0.12)	5.60	< .001	0.69 (0.14)	4.88	< .001	0.68 (0.11)	5.94	< .001	0.59 (0.14)	4.22	< .001
Emphasis	-0.13 (0.12)	1.15	.25	-0.30 (0.14)	2.14	.03	-0.21 (0.11)	1.90	.06	-0.16 (0.14)	1.13	.26
Representation * Evaluated Stereotypicality	-0.07 (0.11)	0.63	.53	-0.11 (0.14)	0.78	.44	-0.14 (0.11)	1.26	.21	-0.14 (0.13)	1.05	.30
Representation * Emphasis	-0.31 (0.12)	2.59	.01	-0.27 (0.14)	1.89	.06	-0.24 (0.11)	2.12	.04	-0.35 (0.14)	2.52	.01
Evaluated Stereotypicality * Emphasis	0.24 (0.12)	1.98	.05	0.23 (0.14)	1.61	.11	0.22 (0.11)	1.95	.05	0.26 (0.14)	1.85	.06
Representation * Evaluated Stereotypicality * Emphasis	-0.08 (0.11)	0.70	.49	-0.03 (0.14)	0.25	.80	0.07 (0.11)	0.61	.54	-0.09 (0.13)	0.67	.50



**FIG 2** Interactions between gender representations of Kamala Harris and trait emphasis emerged on impression positivity (a), support (b), expected success (c), and voting likelihood (d). Across evaluations, more feminine representations of Harris's face positively related to evaluations in the agentic, but not the communal, trait emphasis. Dots reflect predicted evaluations at one standard deviation below (more masculine) and above (more feminine) the mean gender representation. Error bars denote standard error

between gender representations and trait emphasis was marginally significant (Figure 2b),  $b = -0.27$ ,  $SE = 0.14$ ,  $t = 1.89$ ,  $p = .06$ . We examined simple slopes to assess consistency with the interaction on impression positivity. More feminine representations related to more support given the agentic,  $b = 0.75$ ,  $SE = 0.22$ ,  $t = 3.48$ ,  $p = .001$ , but not the communal,  $b = 0.21$ ,  $SE = 0.18$ ,  $t = 1.18$ ,  $p = .24$ , emphasis. See Table 2b for coefficient details.

## Expected success

The first model was significant,  $F(3, 263) = 18.46$ ,  $p < .001$ ,  $R^2 = .17$ . More feminine representations,  $b = 0.42$ ,  $SE = 0.14$ ,  $t = 3.01$ ,  $p < 0.001$ , and evaluated stereotypicality,  $b = 0.74$ ,  $SE = 0.14$ ,  $t = 5.25$ ,  $p < .001$ , related to the more expected success.

The second model explained more variance than the first,  $F(4, 259) = 2.61$ ,  $p = .04$ ,  $R^2_{change} = .04$ . The gender representation and stereotypicality effects remained significant. The interaction between gender representations and trait emphasis emerged (Figure 2c),  $b = -0.24$ ,  $SE = 0.11$ ,  $t = 2.12$ ,  $p = .04$ . More feminine representations related to more expected success given the agentic,  $b = 0.69$ ,  $SE = 0.17$ ,  $t = 3.99$ ,  $p < .001$ , but not the communal,  $b = 0.21$ ,  $SE = 0.15$ ,  $t = 1.44$ ,  $p = .15$ , emphasis. The interaction between evaluated gender stereotypicality and trait emphasis was marginally significant,  $b = 0.22$ ,  $SE = 0.11$ ,  $t = 1.95$ ,  $p = .05$ . We examined simple slopes to assess consistency with the marginal interaction for impression positivity. Again, more feminine evaluated stereotypicality was, surprisingly, marginally more positively related to expected success given the communal,  $b = 0.91$ ,  $SE = 0.15$ ,  $t = 6.16$ ,  $p < .001$ , than the agentic,  $b = 0.46$ ,  $SE = 0.18$ ,  $t = 2.60$ ,  $p = .001$ , emphasis. See Table 2c for coefficient details.

**TABLE 3** Intercorrelations for gendered perceptions and participant characteristics ( $N = 267$ )

Variable	1	2	3	4	5	6
1. Gender representation						
2. Evaluated gender stereotypicality	.04					
3. Benevolent sexism	.04	-.08				
4. Hostile sexism	-.08	-.30**	.41**			
5. Non-transcendent gender beliefs	-.09	-.26**	.30**	.55**		
6. Gender-linked beliefs	.03	-.21**	.64**	.63**	.53**	
7. Political ideology	.17**	.24**	-.30**	-.53**	-.39**	-.38**

Note.  $M$  and  $SD$  represent mean and standard deviation, respectively. \*indicates  $p < .05$ . \*\*indicates  $p < .01$ .

## Voting likelihood

The first model was significant,  $F(3, 263) = 11.00$ ,  $p < .001$ ,  $R^2 = .11$ . More feminine representations,  $b = 0.40$ ,  $SE = 0.14$ ,  $t = 2.85$ ,  $p = 0.005$ , and evaluated stereotypicality,  $b = 0.65$ ,  $SE = 0.14$ ,  $t = 4.68$ ,  $p < .001$ , related to a higher likelihood of voting for Harris.

The second model explained more variance than the first,  $F(4, 259) = 2.67$ ,  $p = .03$ ,  $R^2_{change} = .04$ . The gender representation and stereotypicality effects remained significant. The interaction between gender representations and trait emphasis emerged (Figure 2d),  $b = -0.35$ ,  $SE = 0.14$ ,  $t = 2.52$ ,  $p = .01$ . More feminine representations related to a higher voting likelihood given the agentic,  $b = 0.81$ ,  $SE = 0.21$ ,  $t = 3.84$ ,  $p < .001$ , but not the communal,  $b = 0.11$ ,  $SE = 0.18$ ,  $t = 0.64$ ,  $p = .52$ , emphasis. The interaction between evaluated gender stereotypicality and trait context was marginally significant,  $b = 0.26$ ,  $SE = 0.14$ ,  $t = 1.85$ ,  $p = .06$ . Again, more feminine evaluated stereotypicality was, surprisingly, related to a higher voting likelihood given the communal,  $b = 0.85$ ,  $SE = 0.18$ ,  $t = 4.74$ ,  $p < .001$ , but not the agentic,  $b = 0.33$ ,  $SE = 0.22$ ,  $t = 1.54$ ,  $p = .12$ , emphasis. See Table 2d for all coefficient details.

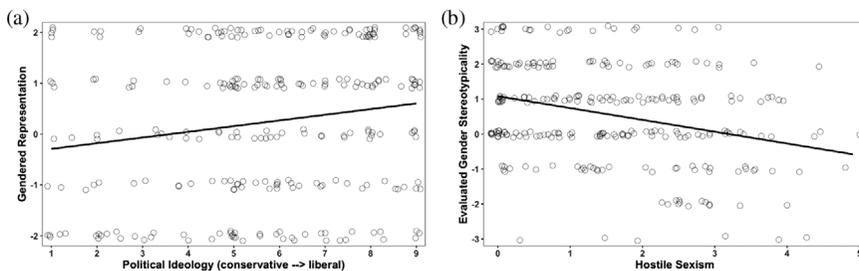
## Exploring contributions to gender representations of Kamala Harris

An exploratory goal was to examine relationships between political ideology, sexism, and gender role beliefs with gender representations of Harris. We report relationships with evaluated gender stereotypicality for completeness. Because there were no differences in political ideology, benevolent sexism, hostile sexism, non-transcendent gender beliefs, and gender-linked beliefs by trait emphasis ( $ts < 1.58$ ,  $ps > .12$ ), we explored relationships across participants (Table 3).<sup>3</sup>

## Gender representations

Only having a more liberal political ideology related to having more feminine representations of Harris's face,  $r(265) = .17$ ,  $p = .004$  (Figure 3(a)). We examined whether this relationship emerged when accounting for variance from the other variables by regressing gender

<sup>3</sup>Note that all emergent significant correlations were significant at an alpha of .01 to correct for multiple comparisons.



**FIG 3** More liberal political ideology correlated with more feminine representations of Kamala Harris's face (a). More hostile sexism correlated with more masculine evaluated gender stereotypicality of Harris relative to other women. Higher values on y-axes denote more feminine perceptions. Lines denote trendlines

**TABLE 4** Regression summaries for gendered perceptions of Kamala Harris

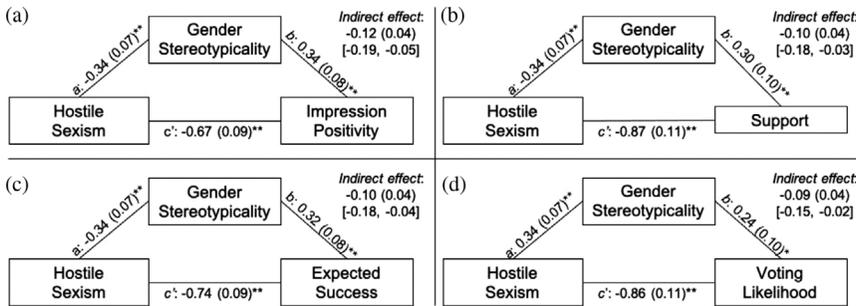
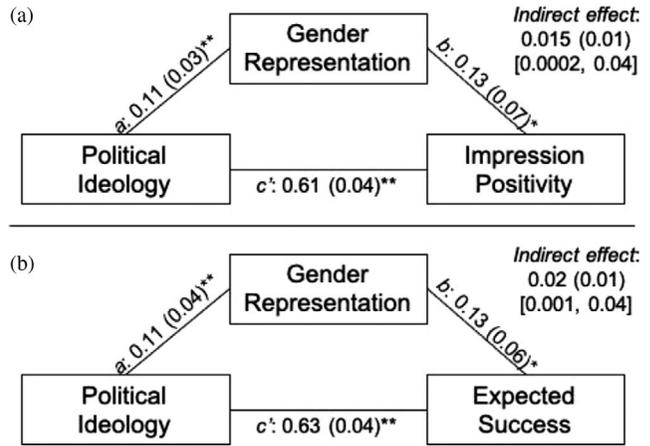
	Gender Representations			Evaluated Gender Stereotypicality		
	<i>b</i> (SE)	<i>t</i>	<i>p</i>	<i>b</i> (SE)	<i>t</i>	<i>p</i>
Political ideology	0.27 (0.11)	2.58	.01	0.14 (0.10)	1.46	.14
Benevolent sexism	0.07 (0.12)	0.64	.52	0.13 (0.11)	1.22	.23
Hostile sexism	−0.07 (0.13)	0.53	.60	−0.26 (0.12)	2.20	.03
Non-transcendent gender beliefs	−0.10 (0.11)	0.95	.35	−0.16 (0.10)	1.58	.12
Gender-linked beliefs	0.19 (0.14)	1.39	.16	−0.08 (0.13)	0.60	.55

representations on standardized political ideology, benevolent sexism, hostile sexism, non-transcendent gender beliefs, and gender-linked beliefs. The model was significant,  $F(5, 261) = 2.65$ ,  $p = .02$ ,  $R^2 = .04$ , and the ideology effect remained,  $b = 0.27$ ,  $SE = 0.11$ ,  $t = 2.58$ ,  $p = .01$ . See Table 4(a) for all coefficient details. A second model including trait emphasis and its interactions did not explain more variance,  $F(6, 255) = 1.77$ ,  $p = .11$ . Entering participant gender and its interactions also did not explain more variance,  $F(6, 255) = 1.10$ ,  $p = .39$ .

## Evaluated gender stereotypicality

Relating to more masculine evaluated stereotypicality of Harris were more hostile sexism ( $r(265) = -.30$ ,  $p < .001$ ; Figure 3b), non-transcendent gender beliefs ( $r(265) = -.26$ ,  $p < .001$ ), and gender-linked beliefs ( $r(265) = -.30$ ,  $p < .001$ ). Having a more liberal political ideology related to more feminine evaluated stereotypicality,  $r(265) = .24$ ,  $p < .001$ . A model regressing evaluated gender stereotypicality on standardized political ideology, benevolent sexism, hostile sexism, non-transcendent gender beliefs, and gender-linked beliefs was significant,  $F(5, 261) = 6.74$ ,  $p < .001$ ,  $R^2 = .10$ , although only the hostile sexism effect remained,  $b = -.26$ ,  $SE = 0.12$ ,  $t = 2.19$ ,  $p = .03$ . See Table 4(b) for all coefficient details. A model including trait emphasis and its interactions did not explain more variance,  $F(6, 255) = 0.78$ ,  $p = .59$ . Entering participant gender and its interactions also did not explain more variance,  $F(6, 255) = 0.90$ ,  $p = .49$ .

**FIG 4** Exploratory mediation models showed that more feminine gender representations of Kamala Harris mediated the positive relationship between more liberal political ideology and impression positivity (a) as well as expected success (b). \* $p < .05$ ; \*\* $p < .01$



**FIG 5** Exploratory mediation models showed that less feminine evaluated gender stereotypicality of Kamala Harris mediated the negative relationship between more hostile sexism and impression positivity (a), support (b), expected success (c), and voting likelihood (d). \*\* $p < .01$

### Exploring potential mechanisms for evaluations of Kamala Harris

To inform future work, we lastly conducted exploratory analyses to identify if gender representations and evaluated gender stereotypicality of Harris may explain relationships between participant characteristics and their personal evaluations using Model 4 in PROCESS (Hayes, 2012) for R with 5000 bootstrap samples for bias-corrected confidence intervals. Because ideology was the strongest predictor of gender representations, we verified that more liberal ideology positively related to impression positivity ( $r(265) = .67, p < .001$ ), support ( $r(265) = .73, p < .001$ ), expected success ( $r(265) = .72, p < .001$ ), and voting likelihood ( $r(265) = .73, p < .001$ ). More feminine representations partially mediated positive relationships between more liberal ideology and impression positivity ( $b = 0.015, SE = 0.01, 95\% \text{ CI } [0.0002, 0.04]$ ; Figure 4(a)) and expected success ( $b = 0.02, SE = 0.01, 95\% \text{ CI } [0.001, 0.04]$ ; Figure 4(b)).

Because hostile sexism was the strongest predictor of evaluated gender stereotypicality, we verified negative relationships with impression positivity ( $r(265) = -.47, p < .001$ ), support ( $r(265) = -.49, p < .001$ ), expected success ( $r(265) = -.52, p < .001$ ), and voting likelihood ( $r(265) = -.49, p < .001$ ). More masculine evaluated stereotypicality partially mediated negative relationships between hostile sexism and impression positivity ( $b = -0.12, SE = 0.04, 95\% \text{ CI } [-0.19, -0.05]$ ; Figure 5(a)), support ( $b = -0.10, SE = 0.04, 95\% \text{ CI } [-0.18, -0.03]$ , Figure 5(b)), expected success

( $b = -0.11$ ,  $SE = 0.04$ , 95% CI  $[-0.18, -0.04]$ ; Figure 5(c)), and voting likelihood ( $b = -0.08$ ,  $SE = 0.04$ , 95% CI  $[-0.15, -0.02]$ ; Figure 5(d)).

## DISCUSSION

Femininity in female faces increases the positivity of evaluations of them (e.g. Sutherland et al., 2015) in part because it reflects stereotypic expectations that women are communal (e.g. Walker & Wanke, 2017). Here, more feminine representations of Kamala Harris's face related to more positive evaluations of her before the 2020 election. This finding complements work showing feminine representations of hypothetical women's faces elicit favorable outcomes for them (Goh et al., 2021) using a real woman on the national political stage. It is also consistent with work showing that the extent to which people's subjective representations of real candidate faces reflect positive facial stereotypes bias their intentions (Young et al., 2014) and relate to favorable candidate outcomes (Caruso et al., 2009). Moreover, whereas reactions to actual lower femininity in different female candidates' faces reduces electoral viability (e.g. Hehman et al., 2014), we show that variability in representations of the same candidate's face relates to viability too.

Being perceived as less feminine harms female candidates' viability. For example, less stereotypic evaluations of Hillary Clinton negatively affected her in 2008 (Gervais & Hillard, 2011) and 2016 (Conroy et al., 2020). These patterns are consistent with the double bind in which female candidates often find themselves. Whereas the leader role involves stereotypically masculine traits, the female gender role involves stereotypically feminine traits (Eagly & Karau, 2002). As such, women seeking male-dominated positions are often perceived as un-communal (e.g. Phelan et al., 2008). By identifying a positive relationship between feminine representations of Harris's face and evaluations of her, the current findings have implications for this work. First, because feminine faces reflect communal traits (Wen et al., 2020), feminine representations of Harris's face may allow her to be perceived as communal. Speculatively, feminine representations may allow for concurrent agentic and communal evaluations eliciting evaluative advantages for women successful in top leadership roles (Rosette & Tost, 2010). Second, this relationship emerged when controlling for Harris's overall evaluated gender stereotypicality. Distinct gender representation and evaluated gender stereotypicality effects suggest that femininity affected outcomes for Harris via multiple routes, perhaps echoing the unique roles appearances and behaviors play in impression formation (e.g. Baron et al., 2011; Shen et al., 2020).

The positive relationship between feminine representations of Harris's face and evaluations of her was stronger when emphasizing her agentic versus communal traits. Suggesting these emphases did not prime representations, representations did not vary by emphasis. The emphases instead affected the impact of representations. Here, having more feminine representations, given an agentic emphasis, drove more positive evaluations. Specifically, more feminine representations elicited higher evaluations given the agentic versus the communal emphasis,  $t_s > 2.58$ ,  $p_s < .01$ . By contrast, evaluations by emphasis did not differ if people had more masculine representations,  $t_s < 1.03$ ,  $p_s > .30$ . Harris thus benefited from being emphasized as agentic and, through representations of her face, the positivity associated with femininity (e.g. Wen et al., 2020). This benefit again aligns with work showing advantages for female leaders evaluated as both highly agentic and communal (Rosette & Tost, 2010). This pattern also reflects that feminine facial cues were needed for Harris to be more positively evaluated. A communal emphasis did not benefit Harris given more masculine representations of her face, reflecting effects of feminine facial stereotypes on evaluations of women (e.g. Sutherland et al., 2015).

Although the gender content of Harris's face was manipulated during stimulus creation, an alternative explanation for the current findings is that people who liked Harris more actually represented her as more attractive rather than as more feminine. Indeed, the attractiveness halo positively affects candidate outcomes (Verhulst et al., 2010). Here, we do not argue that attractiveness did not positively relate to evaluations of Harris. Facial attractiveness, however, does not entirely account for the stronger positive relationship between more feminine representations of Harris's face and evaluations given the agentic versus the communal emphasis because the most attractive faces are often not the most communal (Sofer et al., 2015). Because enhanced facial femininity positively relates to communal trait impressions (e.g. Walker & Wanke, 2017), more femininity may better explain why gender representations positively related to candidate evaluations.

Surprisingly, patterns for how Harris's evaluated gender stereotypicality affected evaluations by trait emphasis deviated from the patterns shown with representations of her face. Although we are hesitant to overinterpret patterns not reaching statistical significance, it is noteworthy that more feminine evaluated gender stereotypicality more positively related to evaluations given a communal versus an agentic emphasis in some cases. Here, more masculine evaluated gender stereotypicality elicited lower evaluations given the communal versus the agentic emphasis,  $t_s > 2.12$ ,  $p_s < .03$ . By contrast, evaluations by emphasis did not differ if people had more feminine evaluated gender stereotypicality of Harris,  $t_s < 0.60$ ,  $p_s > .55$ . One possibility is that emphasizing Harris as communal via others' ostensible evaluations countered people's natural endorsement of Harris as agentic (Liebenow et al., in preparation). Because disconfirmatory information elicits polarized political beliefs (e.g. Taber et al., 2009), presenting people who explicitly endorsed Harris' gender stereotypicality as more masculine with information supporting her communality may have polarized beliefs to drive more negative evaluations. Future work focusing on evaluated gender stereotypicality may examine this possibility. Albeit speculative, this possibility is notable because female candidates often adopt "gendered" strategies with varying success (e.g. Bauer, 2017). It is also notable because feminine representations and evaluated gender stereotypicality both positively related to evaluations of Harris. Characterizing differences suggests that these relationships are distinct.

Finally, we examined the nature of gender representations of Harris by identifying factors related to them. Only having a more liberal ideology related to having more feminine representations of Harris's face. This relationship conceptually replicated work on ideology and candidate face representations (e.g. Caruso et al., 2009; Young et al., 2014), showing it using a woman's face for the first time. Consistent with people having more stereotypically positive representations of ingroup versus outgroup faces (Ratner et al., 2014), this finding adds to work showing that people alter how they represent partisan faces based on their desire to favorably evaluate them (Caruso et al., 2009). Indeed, exploratory analyses showed that more liberal people may positively evaluate and intend to vote for Harris through having more feminine representations of her face. That gender representations even partially mediated the robust relationship between political ideology and evaluations of Harris speaks to gender representations as an important area for future work. Reflecting hostile sexists' desire to maintain traditional gender roles (Glick & Fiske, 2001), hostile sexism mediated gender stereotypicality effects on evaluations. This finding suggests further distinctions between gender representations of faces and evaluated gender stereotypicality.

## Limitations and future directions

Examining real candidates like Harris is important to understand how women can gain government representation. One limitation, however, is that many variables cannot be controlled. For example, people vary in their knowledge of Harris and consume different media. Although media consumption has not been shown to affect representations of candidate faces (Caruso et al., 2009), we cannot rule out effects here. Candidates do not live in a vacuum, however, perhaps making a specific examination of representations of Harris a rigorous test of this relationship. A second limitation is that candidates are idiosyncratic, raising the question of whether the described relationships will extend to other female candidates. Notably, femininity has been a focal point of work on hypothetical (e.g. Bauer, 2017) and real (e.g. Gervais & Hillard, 2011) female candidates, and our findings align with past work (e.g. Rosette & Tost, 2010). Future work may examine gender representations of emerging Republican and Democratic female candidates to examine if these findings generalize to different candidates across the political spectrum. Indeed, Republican and Democrat female candidates may be differentially perceived with regard to their relative femininity (Gervais & Hillard, 2011).

Harris is also distinct from other female candidates for the executive branch because she was the first biracial female candidate. Because Harris is part Black, her race may be of theoretical interest for this study and for future work. Race and gender have overlapping psychological and phenotypic content affecting how people process (Johnson et al., 2012) and react to (Galinsky et al., 2013) faces. For example, categorizing a female face as female is slower when a face is Black relative to White or Asian (Johnson et al., 2012). Speculatively, people's representation of a Black female candidate's face may be influenced by the masculine stereotype associated with being Black. Compared to races where this stereotype applies to a lesser extent, Black female candidates may face more obstacles in being represented as feminine. If Harris's face was represented as more feminine despite masculine race stereotypes, one possibility is thus that it reflects especially strong support for her. Future work examining the intersectionality of race and gender on candidate outcomes may clarify how gendered perceptions of race affect face processing to influence outcomes for both female and male candidates.

A third limitation of this work is that Harris was on a ticket supporting a male candidate. Though Harris broke barriers by being the first woman elected to the executive branch, Joe Biden continued the male-dominated presidency, meaning traditional norms were upheld to an extent. Although the vice presidency is now perceived as less subservient to the presidency (Dwyer et al., 2009), gender representations of female candidates and the constructs underlying them might shift given the possibility that a woman will shatter the ultimate glass ceiling. Indeed, sexism was a focal point of work on Hillary Clinton's historic 2016 nomination (e.g. Cassidy & Krendl, 2019; Ratliff et al., 2019). It will be important for future work to characterize effects of gender representations and the constructs underlying them on evaluations depending on the makeup of a party ticket. With more female candidates emerging, the future is rife with opportunities to better understand how gender representations relate to evaluations of them.

Although the current work focused on Kamala Harris, these findings have broader implications for how people evaluate aspiring female leaders in that they highlight gender representations as an understudied factor contributing variability in evaluations of women. Future work may assess the generalizability of these results outside of the political arena. For example, how people represent the faces of women they have interviewed for leadership roles may affect their ultimate evaluations of them, thereby perpetuating women's broader underrepresentation in leadership

in the United States. Indeed, only 22.5% of United States Fortune 500 companies have women on their board of directors (Catalyst, 2018). Further, it will be important to examine interactive effects of trait emphases on how gender representations of women affect evaluations when they aspire to leadership positions traditionally held by men (e.g. high school principal) versus women (e.g. elementary school teacher). Different combinations of agentic and communal cues may matter more for some leadership positions over others.

## CONCLUSION

Female candidates highlight their feminine qualities through visual cues to elicit more positive evaluations (Carpinella & Bauer, 2019). This study is the first to suggest that voters may also do so via the alignment of their representations of candidate faces with positive gender stereotypes. People may have favorably evaluated Kamala Harris in part due to having more feminine representations of her face, thus identifying a novel basis for her historic electoral success.

## ORCID

Brittany S. Cassidy  <https://orcid.org/0000-0002-1449-0886>

## REFERENCES

- Abele, A. (2003) The dynamics of masculine-agentic and feminine-communal traits: findings from a prospective study. *Journal of Personality and Social Psychology*, 85(4), 768–776. <https://doi.org/10.1037/0022-3514.85.4.768>
- Abele, A. & Wojciszke, B. (2007) Agency and communion from the perspective of self versus others. *Journal of Personality and Social Psychology*, 93, 751–763. <https://doi.org/10.1037/0022-3514.93.5.751>
- Atkeson, L. (2003) Not all cues are created equal: the conditional impact of female candidates on political engagement. *Journal of Politics*, 65, 1040–1061. <https://doi.org/10.1111/1468-2508.t01-1-00124>
- Baber, K. & Tucker, C. (2006) The social roles questionnaire: a new approach to measuring attitudes toward gender. *Sex Roles*, 54, 459–467. <https://doi.org/10.1007/s11199-006-9018-y>
- Baron, S., Gobbin, M., Engell, A. & Todorov, A. (2011) Amygdala and dorsomedial prefrontal cortex responses to appearance-based and behavior-based person impressions. *Social Cognitive and Affective Neuroscience*, 6, 572–581. <https://doi.org/10.1093/scan/nsq086>
- Bauer, N. (2017) The effects of counterstereotypic gender strategies on candidate evaluations. *Political Psychology*, 38(2), 279–295. <https://doi.org/10.1111/pops.12351>
- Bauer, N. & Carpinella, C. (2018) Visual information and candidate evaluations: The influence of feminine and masculine images on support for female candidates. *Political Research Quarterly*, 71(2), 395–407. <https://doi.org/10.1177/1065912917738579>
- Bem, S. (1974) The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 155–162. <https://doi.org/10.1037/h0036215>
- Brown, E., Thoman, D., Smith, J. & Diekmann, A. (2015) Closing the communal gap: The importance of communal affordances in science career motivation. *Journal of Applied Social Psychology*, 45, 662–673. <https://doi.org/10.1111/jasp.12327>
- Bruckmuller, S. & Abele, A. (2013) The density of the big two: how are agency and communion structurally represented. *Social Psychology*, 44, 63–74. <https://doi.org/10.1027/1864-9335/a000145>
- Carpinella, C. & Bauer, N. (2019) A visual analysis of gender stereotypes in campaign advertising. *Politics, Groups, and Identities*, 9(2), 369–386. <https://doi.org/10.1080/21565503.2019.1637353>
- Carpinella, C., Hehman, E., Freeman, J. & Johnson, K. (2016) The gendered face of partisan politics: consequences of facial sex typicality for vote choice. *Political Communication*, 33, 21–38. <https://doi.org/10.1080/10584609.2014.958260>

- Carpinella, C. & Johnson, K. (2016) Visual political communication: the impact of facial cues from social constituencies to personal pocketbooks. *Social and Personality Psychology Compass*, 10(5), 281–297. <https://doi.org/10.1111/spc3.12249>
- Caruso, E., Mead, N. & Balcetis, E. (2009) Political partisanship influences perception of biracial candidates skin tone. *Proceedings of the National Academy of Sciences*, 106(48), 20168–20173. <https://doi.org/10.1073/pnas.0905362106>
- Cassidy, B. & Krendl, A. (2018) Believing is seeing: arbitrary stigma labels affect the visual representation of faces. *Social Cognition*, 36(4), 381–410. <https://doi.org/10.1521/soco.2018.36.4.381>
- Cassidy, B. & Krendl, A. (2019) A crisis of competence: Penevolent sexism affects evaluations of women's competence. *Sex Roles*, 81(7), 505–520. <https://doi.org/10.1007/s11199-019-1011-3>
- Catalyst. (2018) *2018 Catalyst census: Financial Post 500 women board directors*.
- Cole, S., Trope, Y. & Balcetis, E. (2016) In the eye of the betrothed: Perceptual downgrading of attractive alternative romantic partners. *Personality and Social Psychology Bulletin*, 42(7), 879–892. <https://doi.org/10.1177/0146167216646546>
- Conroy, M., Martin, D. & Nalder, K. (2020) Gender, sex, and the role of stereotypes in evaluations of Hillary Clinton and the 2016 presidential candidates. *Journal of Women, Politics, and Policy*, 41(2), 194–218. <https://doi.org/10.1080/1554477X.2020.1731280>
- Degner, J., Mangels, J. & Zander, L. (2019) Visualizing gendered representations of male and female teachers using a reverse correlation paradigm. *Social Psychology*, 50(4), 233–251. <https://doi.org/10.1027/1864-9335/a000382>
- Diehl, M., Owen, S. & Youngblade, L. (2008) Agency and communion attributes in adults' spontaneous self-representations. *International Journal of Behavioral Development*, 28(1), 1–15. <https://doi.org/10.1080/01650250344000226>
- Titonto, T. & Mattes, K. (2018) Differences in appearance-based trait inferences for male and female political candidates. *Journal of Women, Politics, and Policy*, 39(4), 430–450. <https://doi.org/10.1080/1554477X.2018.1506206>
- Dwyer, C., Stevens, D., Sullivan, J. & Allen, B. (2009) Racism, sexism, and candidate evaluations in the 2008 U.S. presidential election. *Analyses of Social Issues and Public Policy*, 9, 223–240. <https://doi.org/10.1111/j.1530-2415.2009.01187.x>
- Eagly, A. & Carli, L. (2003) Finding gender advantage and disadvantage: systematic research integration is the solution. *The Leadership Quarterly*, 14, 851–859. <https://doi.org/10.1016/j.leaqua.2003.09.003>
- Eagly, A. & Karau, S. (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>
- Faul, F., Erdfelder, E., Lang, A. & Buchner, A. (2007) G\*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/bf03193146>
- Fiske, S., Cuddy, A., Glick, P. & Xu, J. (2002) A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902. <https://doi.org/10.1037/0022-3514.82.6.878>
- Galinsky, A., Hall, E. & Cuddy, A. (2013) Gendered races: implications for interracial marriage, leadership selection, and athletic participation. *Psychological Science*, 24(4), 498–506. <https://doi.org/10.1177/0956797612457783>
- Gervais, S. & Hillard, A. (2011) A role congruity perspective on prejudice toward Hillary Clinton and Sarah Palin. *Analyses of Social Issues and Public Policy*, 11(1), 221–240. <https://doi.org/10.1111/j.1530-2415.2011.01263.x>
- Glick, P. & Fiske, S. (1996) The ambivalent sexism inventory: differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70(3), 491–512. <https://doi.org/10.1037/0022-3514.70.3.491>
- Glick, P. & Fiske, S. (2001) An ambivalent alliance: hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56(2), 109–118. <https://doi.org/10.1017/cbo9781139022736.005>
- Goh, J., Bandt-Law, B., Cheek, N., Sinclair, S. & Kaiser, C. (2021) Narrow prototypes and neglected victims: understanding perceptions of sexual harassment. *Journal of Personality and Social Psychology*, <https://doi.org/10.1037/pspi0000260>
- Hayes, A. (2012) *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. <http://www.afhayes.com/public/process2012.pdf>
- Hehman, E., Carpinella, C., Johnson, K., Leitner, J. & Freeman, J. (2014) Early processing of gendered facial cues predicts the electoral success of female politicians. *Social Psychological and Personality Science*, 5(7), 815–824. <https://doi.org/10.1177/1948550614534701>

- Inbar, Y. & Lammers, J. (2012) Political diversity in social and personality psychology. *Perspectives on Psychological Science*, 7(5), 496–503. <https://doi.org/10.1177/1745691612448792>
- Jaeger, B., Evans, A., Stel, M. & van Beest, I. (2019) Explaining the persistent influence of facial cues in social decision-making. *Journal of Experimental Psychology: General*, 148(1008-1021). <https://doi.org/10.1037/xge0000591>
- Jaeger, B., Todorov, A., Evans, A. & van Beest, I. (2020) Can we reduce facial biases? Persistent effects of facial trustworthiness on sentencing decisions. *Journal of Experimental Social Psychology*, 90, 104004. <https://doi.org/10.1016/j.jesp.2020.104004>
- Johnson, K., Freeman, J. & Pauker, K. (2012) Race is gendered: how covarying phenotypes and stereotypes bias sex categorization. *Journal of Personality and Social Psychology*, 102(1), 116–131. <https://doi.org/10.1037/a0025335>
- Karp, J. & Banducci, S. (2008) When politics is not just a man's game: women's representation and political engagement. *Electoral Studies*, 27(1), 105–115. <https://doi.org/10.1016/j.electstud.2007.11.009>
- Korenman, L., Wetzler, E., Carroll, M. & Velilla, E. (2019) Is it in your face?: exploring the effects of sexual dimorphism on perception of leadership potential. *Military Psychology*, 31(2), 107–116. <https://doi.org/10.1080/08995605.2018.1556555>
- Liebenow, H., Boucher, K. & Cassidy, B. (in preparation). Gendered trait inferences and political ideology interact in evaluations of Kamala Harris.
- Maddox, K. & Gray, S. (2002) Cognitive representations of Black Americans: re-exploring the role of skin tone. *Personality and Social Psychology Bulletin*, 28, 250–259. <https://doi.org/10.1177/0146167202282010>
- Martin, A. & Slepian, M. (2020) The primacy of gender: Gendered cognition underlies the big two dimensions of social cognition. *Perspectives on Psychological Science*, <https://doi.org/10.1177/1745691620904961>
- Moss-Racusin, C., Dovidio, J., Brescoll, V., Graham, M. & Handelsman, J. (2012) Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences*, 109, 16474–16479. <https://doi.org/10.1073/pnas.1211286109>
- Oh, D., Buck, E. & Todorov, A. (2019) Revealing hidden gender biases in competence impressions of faces. *Psychological Science*, 30(1), 65–79. <https://doi.org/10.1177/0956797618813092>
- Oh, D., Dotsch, R., Porter, J. & Todorov, A. (2019) 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>
- Okimoto, T. & Brescoll, V. (2010) The price of power: power seeking and backlash against female politicians. *Personality and Social Psychology Bulletin*, 36(7), 923–936. <https://doi.org/10.1177/0146167210371949>
- Phelan, J., Moss-Racusin, C. & Rudman, L. (2008) Competent yet out in the cold: shifting criteria for hiring reflect backlash toward agentic women. *Psychology of Women Quarterly*, 32, 406–413. <https://doi.org/10.1111/j.1471-6402.2008.00454.x>
- Prentice, D. & Carranza, E. (2002) What women should be, shouldn't be, are allowed to be, and don't have to be: the contents of prescriptive gender stereotypes. *Psychology of Women Quarterly*, 26, 269–281. <https://doi.org/10.1111/1471-6402.t01-1-00066>
- Ratliff, K., Redford, L., Conway, J. & Smith, C. (2019) Engendering support: Hostile sexism predicts voting for Donald Trump over Hillary Clinton in the 2016 U.S. presidential election. *Group Processes and Intergroup Relations*, 22(4), 578–593. <https://doi.org/10.1177/1368430217741203>
- Ratner, K., Dotsch, R., Wigboldus, D., van Knippenberg, A. & Amodio, D. (2014) Visualizing minimal ingroup and outgroup faces: implications for impressions, attitudes, and behavior. *Journal of Personality and Social Psychology*, 106(6), 897–911. <https://doi.org/10.1037/a0036498>
- Rosette, A. & Tost, L. (2010) Agentic women and communal leadership: how role prescriptions confer advantage to top women leaders. *Journal of Applied Psychology*, 95(2), 221–235. <https://doi.org/10.1037/a0018204>
- Rudman, L. & Glick, P. (2001) Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57, 743–762. <https://doi.org/10.1111/0022-4537.00239>
- Shen, X., Mann, T. & Ferguson, M. (2020) Beware a dishonest face?: updating face-based implicit impressions using diagnostic behavioral information. *Journal of Experimental Social Psychology*, 86, 103888. <https://doi.org/10.1016/j.jesp.2019.103888>
- Smith, J., Paul, D. & Paul, R. (2007) No place for a woman: evidence for gender bias in evaluations of presidential candidates. *Basic & Applied Social Psychology*, 29(3), 225–233. <https://doi.org/10.1080/01973530701503069>

- Sofer, C., Dotsch, R., Wigboldus, D. & Todorov, A. (2015) What is typical is good: the influence of face typicality on perceived trustworthiness. *Psychological Science*, 26(1), 39–47. <https://doi.org/10.1177/0956797614554955>
- Sutherland, C., Young, A., Mootz, C. & Oldmeadow, J. (2015) Face and gender stereotypicality influence facial trait evaluation: counter-stereotypical female faces are negatively evaluated. *British Journal of Psychology*, 106, 186–208. <https://doi.org/10.1111/bjop.12085>
- Taber, C., Cann, D. & Kucsova, S. (2009) The motivated processing of political arguments. *Political Behavior*, 31, 137–155. <https://doi.org/10.1007/s11109-008-9075-8>
- Verhulst, B., Lodge, M. & Lavine, H. (2010) The attractiveness halo: why some candidates are perceived more favorably than others. *Journal of Nonverbal Behavior*, 34, 111–117. <https://doi.org/10.1007/s10919-009-0084-z>
- Walker, M. & Wanke, M. (2017) Exploring the impact of facial masculinity/femininity and gender category information on first impressions. *Plos One*, 12(10), e0181306. <https://doi.org/10.1371/journal.pone.0181306>
- Wen, F., Zuo, B., Ma, S., Xu, Y., Coley, J. & Wang, Y. (2020) Do we see masculine faces as competent and feminine faces as warm? Effects of sexual dimorphism on facial perception. *Evolutionary Psychology*, 18(4). <https://doi.org/10.1177/1474704920980642>
- Wood, W. & Eagly, A. (2002) A cross-cultural analysis of the behavior of women and men: implications for the origins of sex differences. *Psychological Bulletin*, 128(5), 699–727. <https://doi.org/10.1037/0033-2909.128.5.699>
- Young, A., Ratner, K. & Fazio, R. (2014) Political attitudes bias the mental representation of a presidential candidate's face. *Psychological Science*, 25(2), 503–510. <https://doi.org/10.1177/0956797613510717>

## AUTHOR BIOGRAPHIES

**Brittany S. Cassidy** is an assistant professor in the Department of Psychology at the University of North Carolina at Greensboro. Her research interests include impression formation, stereotyping, and face perception.

**Hayley A. Liebenow** is a first-year doctoral student in the Department of Psychology at the University of North Carolina at Greensboro. Her research interests include gender and racial stereotypes, prejudice, and bias.

**How to cite this article:** Cassidy BS, Liebenow HA. Feminine perceptions of Kamala Harris positively relate to evaluations of her candidacy. *Anal Soc Issues Public Policy*. 2021;1–22. <https://doi.org/10.1111/asap.12243>