The Gendered Face of Partisan Politics: Consequences of Facial Sex Typicality for Vote Choice

Colleen M. Carpinella, Eric Hehman, Jonathan B. Freeman & Kerri L. Johnson

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COLLEEN M. CARPINELLA, ERIC HEHMAN, JONATHAN B. FREEMAN, and KERRI L. JOHNSON

Facial cues are consequential for voters' behavior at the polls. Yet the facial cues that are associated with vote choice remain under-examined. We predicted that vote choice judgments rely, in part, on the sex typicality of facial cues (i.e., the degree of facial masculinity and femininity) that vary as a function of candidate gender and partisan identification. Stimuli included image pairs of winners and runners-up in the elections for the 111th U.S. House of Representatives. In Study 1, we found that female Republican candidates who appeared relatively more feminine and male Republican candidates who looked relatively less masculine in their appearance were more likely to win their election. Democratic candidates' electoral success was not related to their sex typicality. In Study 2, we found that relatively masculine-appearing Democrats and feminine-appearing Republicans were more likely to be selected in a hypothetical vote choice task. Implications for U.S. partisan politics are discussed.

Keywords politician perception, social categorization, gender, political psychology

Given the abundance of candidate images on television and in online sources, physical appearance is consequential for candidates' electoral success. Candidates frequently spend thousands of dollars on image consultants (Gabriel, 2011) in order to portray themselves positively. These expenditures are a natural aspect of modern politics due to the association between candidate appearance and voter behavior. Indeed, vote decisions within the U.S. electorate are often governed by superficial cues such as appearance (Hall, Goren, Chaiken, & Todorov, 2009; Olivola & Todorov, 2010a). Here we examined how gendered facial appearance relates to voting behavior in both past elections and within the laboratory.

Appearance-Based Politics

From merely a brief glimpse of a politician, observers form spontaneous impressions that predict several consequential political outcomes (Hall et al., 2009; Olivola & Todorov,

Colleen M. Carpinella is a Postdoctoral Scholar in the Department of Psychology, University of Hawai'i at Manoa. Eric Hehman is a Postdoctoral Scholar in the Department of Psychology at New York University. Jonathan B. Freeman is an Assistant Professor in the Department of Psychology at New York University. Kerri L. Johnson is an Associate Professor in the Departments of Psychology and Communications Studies at University of California Los Angeles.

Address correspondence to Colleen M. Carpinella, PhD, Department of Psychology, University of Hawai'i at Manoa, Honolulu, HI 96822, USA. E-mail: colleen.m.carpinella@hawaii.edu

2010a). Often, these political decisions exploit physical characteristics that are apparent in facial photographs. For example, individuals are more likely to vote for candidates who look more similar to themselves (Bailenson, Iyengar, Yee, & Collins, 2008). Furthermore, the processing of facial cues can facilitate accurate evaluations on several dimensions. For instance, naïve observers are surprisingly adept at discerning the political party affiliation of others, including both unfamiliar elected officials and college students (Bull & Hawkes, 1982; Carpinella & Johnson, 2013a; Jahoda, 1954; Olivola, Sussman, Tsetsos, Kang, & Todorov, 2012; Olivola & Todorov, 2010b; Roberts, Griffin, McOwan, & Johnston, 2011; Rule & Ambady, 2010; Samochowiec, Wänke, & Fiedler, 2010). In addition, observers are also proficient at differentiating political winners from losers when presented with pairs of political candidates (Buckley, Collins, & Reidy, 2007; Olivola et al., 2012; Olivola & Todorov, 2010a; Sussman, Petkova, & Todorov, 2013; Todorov, Mandisodza, Goren, & Hall, 2005). Thus, considerable evidence supports the notion that minimal information from a politician's face can inform accurate perceptions that are politically consequential.

Given this robust tendency for observers to form impressions of politicians based solely on facial photographs, it should come as no surprise that the specific facial cues that inform these judgments have been heavily scrutinized. On this point, two main factors have emerged as viable predictors of early impressions of candidates, as well as candidates' ultimate electoral success—facial competence and attractiveness.

Facial competence—generally measured as ratings of perceived competence among observers—is one key factor that relates to electoral success. In general, politicians whose faces are rated as competent enjoy more favorable election outcomes. In U.S. gubernatorial and congressional elections, for example, judgments of facial competence predict up to 72% of the variance in vote shares (Ballew & Todorov, 2007). Politicians who are judged to appear more competent are also more likely to win their elections (Antonakis & Dalgas, 2009; Armstrong, Green, Jones, & Wright, 2010; Atkinson, Enos, & Hill, 2009; Ballew & Todorov, 2007; Olivola & Todorov, 2010a; Todorov et al., 2005). This relationship appears to be widespread, predicting electoral outcomes in many countries and varying cultures (Antonakis & Dalgas, 2009; Banducci, Karp, Thrasher, & Rallings, 2008; Berggren, Jordahl, & Poutvaara, 2010; Buckley et al., 2007; Castelli, Carraro, Ghitti, & Pastore, 2009; Lenz & Lawson, 2011; Little, Burriss, Jones, & Roberts, 2007; Poutvaara, Jordahl, & Berggren, 2009; Rule et al., 2010; Sussman et al., 2013). Thus, perceived facial competence is one means by which visual cues predict political outcomes.

Facial attractiveness—generally measured as evaluative judgments of physical attraction—is a second key factor that relates to electoral success. Attractive candidates tend to elicit favorable impressions, and they are presumed to be successful; unattractive candidates do not enjoy these benefits (Banducci et al., 2008; Berggren et al., 2010; Budesheim & DePaola, 1994). Importantly, attractiveness also relates to electoral success directly. Indeed, for elections that occurred in Australia, Finland, Germany, and the United Kingdom, attractive candidates were more likely to emerge victorious, and their attractiveness predicted their margin of victory (Banducci et al., 2008; Berggren et al., 2010; King & Leigh, 2006; Klein & Rosar, 2005; Leigh & Susilo, 2009; Rosar, Klein, & Beckers, 2008).

Collectively, therefore, facial competence and attractiveness exert a robust impact on observers' impressions of politicians and also on actual election outcomes. Recent work specified a two-component structure regarding the influence of facial competence on electoral success. First, facial competence mediated the effect of candidate attractiveness on electoral success. Second, facial competence predicted electoral success over and above the effect of candidate attractiveness (Laustsen, 2013). Therefore, facial competence does not merely reflect candidate attractiveness, and remains independently consequential for political success.

Some evidence supports the notion that these factors may impact political outcomes differently for men and women because these characteristics tend to be somewhat gendered in nature. Competence, for example, is generally regarded as a masculine trait (Fiske, Cuddy, Glick, & Xu, 2002), and this perception also extends to judgments of facial competence. Facial competence varies with facial gender cues (Olivola & Todorov, 2010a). Specifically, perceived facial competence tends to be higher for faces that are male (Chiao, Bowman, & Gill, 2008; Johns & Shepard, 2007) or that exhibit highly prototypically masculine characteristics (Olivola & Todorov, 2010a), although this relation also varies by political party affiliation (Carpinella & Johnson, 2013b).[1] Perceived attractiveness, in contrast, tends to be highly gender-specific (Rhodes, 2006). Among women, feminine characteristics are deemed attractive; among men, masculine characteristics are perceived as attractive for natural photographs, but not for digitally manipulated images (e.g., Perrett et al., 1998; Rhodes, Hickford, & Jeffery, 2000). Thus, under normal conditions, perceptions of men's competence and attractiveness may both be cued by masculine characteristics. Perceptions of women may be more nuanced, such that competence is cued by masculine characteristics, but attractiveness is cued by feminine characteristics.

The gender-specific relations between facial cues and judgments of competence and attractiveness may help to explain differences in how these factors relate to electoral outcomes of men and women. Among men, facial competence reliably predicts electoral success (Chiao et al., 2008; Olivola & Todorov, 2010a; Poutvaara et al., 2009), and low levels of competence cannot be overcome by appearing attractive (Mattes et al., 2010). Among women, however, findings are more equivocal. Olivola and Todorov (2010a) found that facial competence predicted electoral success equally well for female candidates who ran against men and for male candidates who ran against other men. Other work, however, found that facial competence predicted electoral success for men, but not women (Chiao et al., 2008; Poutvaara et al., 2009). Thus, the impact of facial cues on women's electoral outcomes remains somewhat unclear, perhaps in part because the cues to women's competence and attractiveness are contraindicated. To appear competent, women must appear masculine, but to appear attractive, they must appear feminine.

The Gendered Nature of U.S. Politics

Political party-based associations are closely tethered to gender. For instance, recent research showed that female politicians were assumed to be Democrats more often compared to male politicians (Olivola et al., 2012). In addition, the gender-specific patterns that tether perceived competence and attractiveness to electoral success raise the intriguing possibility that the very gendered cues that inform perceptions of competence and attractiveness may also relate directly to the electoral success of men and women. This possibility seems tenable based on the evidence just described. When considered alongside evidence that the U.S. political system is itself highly gendered, it seems highly likely.

The gendered nature of U.S. politics is evident in both policies and politicians' appearance. For instance, the two major parties uphold distinct values that vary with respect to gender roles. The Democratic Party advocates for socially liberal policies that aim to diminish gender disparities (e.g., women's rights, abortion rights); the Republican Party, in contrast, supports socially conservative policies that tend to bolster traditional gender roles (e.g., military spending, national defense, traditional marriage; Winter, 2010). These general values manifest in prescriptive guidelines for appropriate actions. Republicans, in particular, urge adherence to traditional gender roles, and this differentially impacts

expectations for women (Lye & Waldron, 1997). Consequently, Republican women who appear feminine offer an image that is congenial to their party's platform.

In addition, the two major parties appear differentially gendered, as well. Specifically, facial sex typicality (i.e., masculinity in men; femininity in women) varies as a function of political party and informs observers' judgments of politicians' party affiliation. In a quasi-experimental study, we observed systematic differences in the gendered facial characteristics of members of the U.S. House of Representatives. Based on facial sex-typicality measurements, conservative women had a more feminine facial shape (e.g., rounder face, higher cheekbones, larger eyes) than did liberal women (Carpinella & Johnson, 2013a), but an analogous effect was not as robust among men. These differences impacted observers' judgments of politicians' political party affiliation. Sex-typical women were more likely to be categorized as Republican, a propensity that reflected the observed differences between female Republicans' and Democrats' facial characteristics. Sex-typical men, in contrast, were less likely to be categorized as Republican. These differences in facial cues appear to be differentially valued, depending on the current political context. During wartime, for instance, masculine faces tend to be preferred; during relative peace, in contrast, feminine faces tend to be preferred (Little et al., 2007; Roberts et al., 2011; Spisak, Dekker, Krüger, & Van Vugt, 2012).

Based on existing evidence, the U.S. political system appears inherently gendered, and this manifests in each party's political platform and in the facial characteristics of Congressional representatives. These findings further support the possibility that gendered facial cues will independently impact electoral success separate from their relationship with facial competence.

Overview of Current Research

Taken together, these observations provide a provocative link between gendered appearance and electoral success. Specifically, observers use facial sex typicality to differentiate Democrats from Republicans, and it relates to perceptions of competence, one key factor that predicts electoral success. The direct relation between gendered facial cues and electoral success remains untested, but our own research provides some support for this possibility. Specifically, we found that implicit/subjective impressions of gender related to electoral outcomes. Successful female Republicans showed stronger associations with the category female, but unsuccessful female Republicans showed stronger associations with the category male (Hehman, Carpinella, Johnson, Leitner, & Freeman, 2014). These findings provide suggestive evidence that facial sex typicality may relate to electoral success.

The current studies test the possibility that the same sex-typical facial cues implicated in party identification and perceptions of competence may also be associated with vote choice. Thus, here we examined whether politicians' gendered facial characteristics relate to congressional candidates' actual electoral success and laboratory participants' preferences in a hypothetical vote choice task. We tested whether the sex typicality of candidates' faces predicts voters' selection of candidates.

Given the gender role orientations of the two parties, we predicted that among Republican candidates, women and men would benefit from a more sex-typical appearance; however, we anticipated that the effect of sex typicality might be attenuated for male candidates. Prior work demonstrated that the sex typicality of facial appearance was more influential for judgments of women than men for judgments of political party affiliation (Carpinella & Johnson, 2013a) and perceptions of facial competence (Carpinella

& Johnson, 2013b). Because the Democratic Party is not associated with prescriptions to adhere to traditional gender roles, we predicted Democrats' electoral success would not be related to their sex typicality.

In two studies, we tested the relation between facial sex typicality and electoral success, separately for actual electoral outcomes (Study 1) and for a hypothetical vote choice made by naïve laboratory participants (Study 2).

Study 1

In Study 1, we tested how electoral outcome (i.e., whether a candidate won an election) varied as a function of facial sex typicality, candidate gender, and candidate party. We hypothesized that among Republican candidates, women and men would benefit from a more sex-typical appearance. Among Democrat candidates, we predicted that candidate electoral success would not be related to the sex typicality of candidate appearance.

Method

Target Population. Targets included both winning and runner-up candidates for the 111th U.S. House of Representatives. Winners included 435 members of Congress (75 women, 360 men)—259 Democrats (58 women, 201 men) and 176 Republicans (17 women, 159 men). Runners-up included 406 individuals (68 women, 338 men)—165 Democrats (39 women, 126 men) and 216 Republicans (24 women, 192 men). For races in which candidates ran unopposed ($N = 29$) and those involving non-major party candidates ($N = 25$; 5 women, 20 men), politicians were not included. Our sample included 698 incumbents, 40 challengers, and 62 open seats.

Measures. Measures included measurements for each candidate's facial sex typicality and observer's ratings of each candidate's gender typicality, competence, and attractiveness (see Table 1 in Supplemental Material for descriptive statistics).

Facial sex typicality. We downloaded each candidate's photograph from their government Web site or Wikipedia. Each politician's face was measured for its degree of sex-typical face shape (masculine cues in men; feminine cues in women). Politician photographs were imported into FaceGen Modeller using the PhotoFit tool and the sex typicality of each face was measured using the Gender Morph tool (Blanz & Vetter, 1999). Facial sex typicality was quantified based on anthropometric parameters of the human population with reference to a database of hundreds of three-dimensional face scans of men and women (Blanz & Vetter, 2003; see Figure 1 This single index represented a linear combination of hundreds of facial characteristics that reliably differentiate the faces of men and women (e.g., eyebrow arch, jaw structure, eye shape, eye distance; see Blanz & Vetter, 1999).[2]

Values of facial sex typicality ranged from 0 (highly masculine) to 80 (highly feminine). We converted this to a common metric for men and women, reflecting the level of sex-typical facial cues. First, we centered the values by subtracting the scale midpoint. Then, for the men, we reversed the sign. With this conversion, therefore, theoretical values of facial sex typicality ranged from –40 (highly sex atypical) to +40 (highly sex typical). Positive values indicated sex-typical characteristics (i.e., masculine men and feminine women); negative values indicated sex-atypical characteristics (i.e., feminine men and masculine women). We excluded races in which either image from the pair was insufficient in quality for use with our software ($N = 73$), resulting in a total of 308 electoral races.
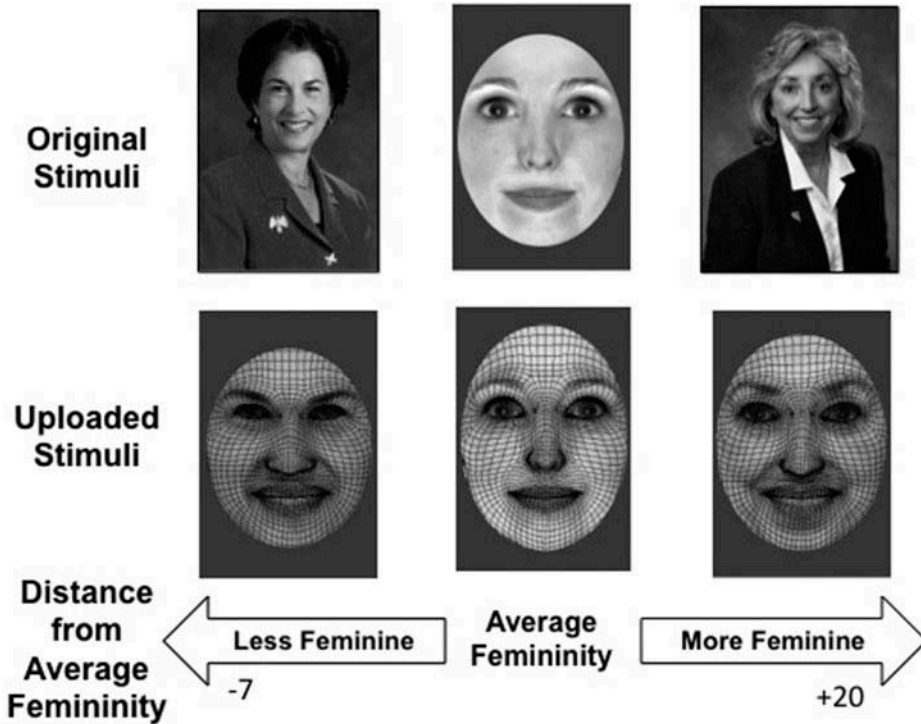
Figure 1. Original politician images were uploaded into the FaceGen program and quantified for their facial sex typicality. The average femininity face here is based on the winners in our sample. The facial sex typicality measurement for the less sex-typical face was –7 or slightly masculine, and the measurement for the more sex-typical face was +20, denoting a highly sex-typical facial structure.

Gender-typicality ratings. We obtained subjective ratings of candidates' gender typicality. Using a common technique to obtain consensus judgments of subjective impressions, we collected data from a norming group (see, e.g., Freeman, Johnson, Ambady, & Rule, 2010). Raters included 48 undergraduate students (38 women; 54% Asian, 30% White, 6% Hispanic, 6% biracial, 4% Black; 56% Democrat, 10% Independent, 17% Republican, 13% no party affiliation) who provided judgments of each politician.

Observers judged gender typicality using a scale that varied from 1 = very masculine to 9 = very feminine. By subtracting the scale midpoint and reversing the sign for judgments of men, we converted these gender-typicality assessments into a common metric for men and women. Theoretical values of gender typicality ranged from –4 (highly sex atypical) to +4 (highly sex typical). As with the sex-typicality scores, negative values indicated a gender-atypical appearance and positive values denoted a gender-typical appearance. For each image, we computed the average perception of gender typicality.

Competence judgments. We also obtained judgments of candidates' facial competence using the same norming group and procedures just described. Observers rated candidates' facial competence on a scale ranging from 1 = not at all competent to 9 = very competent. For each image, we computed the average perception of competence.

Attractiveness judgments. Finally, we obtained judgments of candidates' attractiveness. A separate group of 57 Amazon Mechanical Turk users (29 women; 14% Asian, 71% White, 4% Hispanic, 11% Black; 42% Democrat, 31% Independent, 27% Republican)

judged each candidate's attractiveness using a scale that ranged from 1 = not at all attractive to 9 = very attractive. For each image, we computed the average perception of attractiveness.

Results

Analytic Strategy. We tested our hypotheses using logistic regressions with cluster-specific robust standard errors to account for data dependencies within electoral race (Rogers, 1993). For models with dichotomous outcomes, we constructed logistic regression models using Stata and we employed maximum-likelihood estimation, which is the default for estimating fixed effects for binary outcomes.

For models with continuous outcomes, we constructed generalized estimating equation (GEE) models (Fitzmaurice, Laird, & Ware, 2004) which employed reduced maximum likelihood (REML) estimation, the default for estimating fixed effects for continuous outcomes. For both types of models, we report unstandardized regression coefficients and their related significance tests. Candidate gender, candidate party, and election outcome were all dummy-coded variables, with female, Democrat, and lost election as the reference groups. We used standard model construction for fully factorial models and hereafter use standard regression vernacular to describe effects. We initially computed each analysis including a factor to represent the gender composition of the race (i.e., male-male versus male-female race). The gender composition of the race did not qualify any of the effects described herein, so it was dropped from our analyses.

Electoral Outcome. We predicted that electoral outcome would vary as a function of candidate gender, candidate party, and facial sex typicality. More specifically, we hypothesized that among Republican candidates, women and men would benefit from a more sex-typical appearance. Among Democrat candidates, we predicted that candidate electoral success would not be related to the sex typicality of candidate appearance.

We regressed electoral outcome onto candidate gender, candidate party, facial sex typicality, first independently, and then including all interactions. Electoral outcome did not vary as a function of candidate gender, $b = -.08$, $SE = .19$, $z = -.41$, $p = .68$, OR = .93. However, candidates who appeared less sex typical were 3% more likely to win their election, $b = -.03$, $SE = .01$, $z = -3.64$, $p < .0001$, OR = .97, and election winners were 44% more likely to be Democrats, $b = -.58$, $SE = .20$, $z = -2.86$, $p = .004$, OR = .56.

Importantly, the three-way interaction among candidate gender, candidate party, and facial sex typicality was significant, $X^2(7) = 52.92$, $p < .0001$. Figure 2 shows a scatterplot of all of the candidates' facial sex-typicality measurements as a function of candidate gender, candidate party, and electoral success. To determine the nature of this interaction, we tested simple slopes separately for Republicans and Democrats.

Among Republican candidates, the candidate gender by facial sex typicality interaction was significant, $b = -.30$, $SE = .08$, $z = -3.83$, $p < .0001$. Among female Republicans, each unit increase in candidate's sex typicality (i.e., relatively more feminine) corresponded to a 3% increase in the probability that they would win the election, simple $b = .03$, $SE = .06$, $z = 5.65$, $p < .0001$, OR = 1.03 (see Figure 2). Therefore, the most feminine Republican was 93% more likely to win relative to the least feminine Republican. Conversely, among male Republicans, each unit decrease in candidate's sex typicality (i.e., relatively less masculine) was associated with a 2% increase in the probability that they would win their
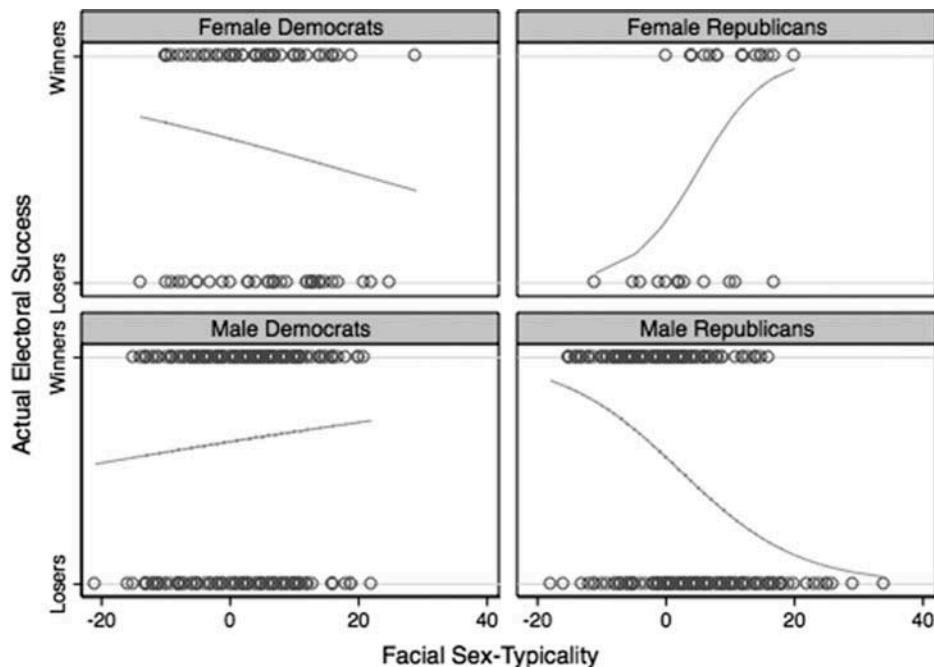
Figure 2. Scatterplot with the raw values of facial sex typicality as a function of electoral success, candidate gender, and candidate party. The fitted lines are the predicted probabilities from the regression model.

election, simple $b = -.02$, $SE = .003$, $z = -8.65$, $p < .0001$, OR $= .98$ (see Figure 2). The least masculine Republican was 104% more likely to win relative to the most masculine Republican.

Among Democratic candidates, the candidate gender by facial sex typicality interaction was marginally significant, $b = .05$, $SE = .03$, $z = 1.79$, $p = .07$. However, the simple slopes were not significant for female or male candidates, simple bs $= -.001$ and .004, SEs $= .01$ and .004, zs $= -1.32$ and 1.23, ps $= .19$ and .22, ORs $= .99$ and 1.0, respectively.

We tested the robustness of this effect in multiple ways. First, to ensure that our effects were not driven by characteristics of the politician or the electoral race, we recomputed the original regression model, this time while controlling for additional variables that represented politician characteristics (facial competence, attractiveness, age, and race) and election characteristics (incumbency status, district partisanship). The inclusion of these control variables did not impact the relationships among facial sex typicality, candidate gender, and candidate party, and election outcome (see Table 2 in Supplemental Material for analyses with perceived competence and electoral outcome).

We also analyzed each candidate's margin of victory. These analyses did not replicate our prior finding for this alternative outcome (see Supplemental Material).

Finally, we conducted a conceptually similar set of analyses in which we substituted subjective ratings of gender typicality for facial sex typicality. These two measures are imperfectly correlated ($r = .13$); nevertheless, for the sake of completeness we opted to include both measures (see Supplemental Material). Importantly, a similar pattern of results was obtained using gender typicality. A more feminine appearance was again associated

with a greater likelihood of electoral success for Republican women, while a less masculine appearance corresponded to a greater likelihood of electoral success for Republican men. Unlike the analyses with facial sex typicality, the effect of gender typicality was significant among Democratic candidates. In particular, male Democrats benefited from a less gender-typical (i.e., less masculine) appearance.

Discussion

Taken together, while facial sex typicality did not significantly predict the electoral outcomes of Democratic candidates, it did predict outcomes for Republican candidates. A more feminine appearance was associated with greater electoral success for women, and a less masculine appearance was associated with greater electoral success for men. As hypothesized, therefore, these results indicate that appearance-based effects may be more pronounced for Republican candidates.

Surprisingly, male Republican winners appeared less sex typical than their losing counterparts. While not initially hypothesized, this effect is consistent with prior work that found Republican men to be somewhat gender atypical (Carpinella & Johnson, 2013a), and we revisit these issues in our General Discussion.

One strength of Study 1 was its ability to reliably predict electoral outcomes that occurred in actual races. Of course, actual votes are likely to rely on considerably more information than merely facial photographs. In spite of this, our models accounted for electoral outcomes even after controlling for pertinent characteristics related to each politician and to the race, more generally. As such, these findings reveal a strong relation showing that gendered facial characteristics predict the aggregate choice of the constituents who actually cast votes. In Study 2, we augment these observations to test whether gendered cues relate to observers' immediate preferences in a hypothetical vote paradigm.

Study 2

While Study 1 provided evidence using an externally valid criterion (i.e., actual votes), there are tremendous benefits afforded by corroborating these effects in a more tightly controlled laboratory study. In Study 2, a laboratory approach allowed us to explore in greater depth the vote choice of candidates based solely on their facial characteristics without the influence of other socio-political variables that often drive political outcomes. We tested how candidates' gendered appearance was related to participants' choices in a hypothetical vote task.

We again predicted that vote choice would vary as a function of facial sex typicality, candidate gender, and candidate party. Based on the results of Study 1, we hypothesized that participants' hypothetical votes would be more likely to favor more feminine-appearing female Republican candidates and less masculine-appearing male Republican candidates, thus replicating the patterns of electoral success observed in Study 1.

Method

Participants. Seventy-three UCLA undergraduate students (21 men, 46 women, 6 unreported) participated in exchange for course credit. Self-reported political party identification varied, but was skewed toward Democrat (12 strong Democrats, 9 weak Democrats, 14 Independents leaning Democrat, 2 Independents, 8 Independents leaning Republican, 3 weak Republicans, 2 Strong Republicans, 1 other, 15 no party affiliation, and

7 non-responses). Given this imbalance (i.e., only 6.9% of the sample population identified as weak or strong Republicans), we refrained from examining perceiver effects.

Stimuli. Facial stimuli consisted of all of the photographs of the members of the 111th United States House of Representatives and their runners-up from Study 1. Photographs were standardized for size (400 x 400 pixels), converted to gray scale, and devoid of backgrounds, which were digitally deleted. For each electoral contest, the placement of each candidate's image was counterbalanced such that half of the pairings depicted the Democratic candidate on the right and the other half depicted the Democratic candidate on the left.

Procedure. Participants viewed each pair of images, presented in random order, and provided a "hypothetical vote" using computer keys labeled "Left Image" and "Right Image." Each trial consisted of a fixation cross (500 ms), followed by a randomly selected image pair that appeared until a judgment was rendered.

Results

Analytic Strategy. We constructed generalized estimating equations (GEE) in order to model multiple hypothetical votes nested within each participant (Fitzmaurice et al., 2004). We report unstandardized regression coefficients (*b*) and Wald *Z* values for each parameter. Vote choice in the hypothetical vote choice task was dummy coded with candidate not selected as the reference group. Candidate gender and candidate party were dummy coded the same way they were in Study 1.We initially computed each analysis including control variables for participant gender and participant party. Participant gender and participant party did not qualify any of the effects described herein, so they were dropped from our analyses.

Hypothetical Vote Choice. We predicted that participants' vote choice would vary as a function of candidate gender, candidate party, and facial sex typicality. More specifically, we hypothesized that among Republican candidates, women would benefit from a more sex-typical appearance and men would benefit from a less sex-typical appearance. Among Democrat candidates, we did not predict that candidate electoral success would be related to the sex typicality of candidate appearance.

To test these predictions, we regressed vote choice onto candidate gender, candidate party, and facial sex typicality, first separately and then including all interactions. Overall, perceivers were 9% more likely to select female candidates, $b = -.09$, $SE = .02$, $z = -3.71$, $p < .0001$, OR = .91, and 43% more likely to choose Democrat candidates, $b = -.56$, $SE = .02$, $z = -29.64$, $p < .0001$, OR = .57. Perceivers were also 1% more likely to choose candidates who appeared less sex typical, $b = -.004$, $SE = .001$, $z = -3.93$, $p < .0001$, OR = .99.

More importantly, however, we predicted that vote choice would vary as a function of the interaction between these factors. To test our focal prediction, we regressed vote choice onto facial sex typicality, candidate gender, candidate party, and all interactions. As predicted, the three-way interaction was significant, $X^2(7) = 757.51$, $p < .0001$ (see Figure 3).

To determine the nature of this interaction, we tested simple slopes separately for Republicans and Democrats. Among Republican candidates, the candidate gender by facial sex-typicality interaction was significant, $b = -.03$, $SE = .007$, $z = -3.90$, $p < .0001$.
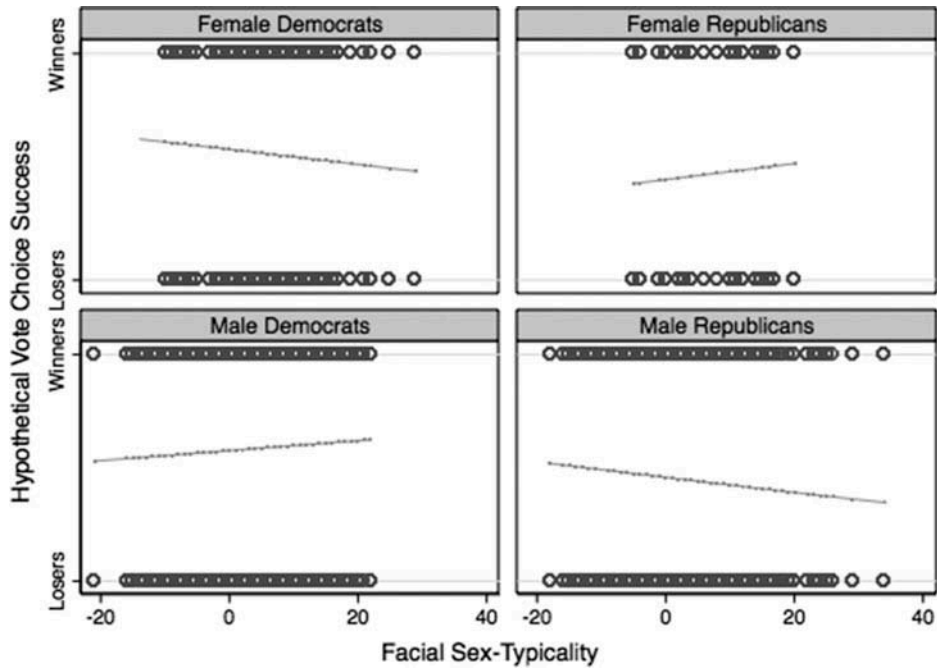
Figure 3. Scatterplot with the raw values of facial sex typicality as a function of vote choice, candidate gender, and candidate party. The fitted lines are the predicted probabilities from the regression model.

Replicating the findings in Study 1, among female Republicans, each unit increase in candidate's sex typicality (i.e., more feminine) corresponded to a .4% greater likelihood of being chosen by participants, simple $b = .004$, $SE = .002$, $z = 2.07$, $p = .04$, OR = 1.004. Therefore, the most feminine Republican was 2.4% more likely to receive support relative to the least feminine Republican candidate. Among male Republicans, each unit decrease in a candidate's sex typicality (i.e., less masculine) was associated with a 1% increase in likelihood of being selected, simple $b = -.003$, $SE = .004$, $z = -8.23$, $p < .0001$, OR = .99. Therefore, the least masculine Republican was 15.6% more likely to be selected compared to the most masculine Republican candidate.

Among Democratic candidates, the candidate gender by facial sex typicality interaction was also significant, $b = .02$, $SE = .004$, $z = 6.22$, $p < .0001$. Among female Democrats, each unit decrease in a candidate's sex typicality (i.e., less feminine) corresponded to a 1% greater likelihood of being chosen by participants, simple $b = -.003$, $SE = .0007$, $z = -4.38$, $p < .0001$, OR = .99. Therefore, the least feminine Democrat was 12.9% more likely to be selected relative to the most feminine Democrat. Among male Democrats, each unit increase in a candidate's sex typicality (i.e., more masculine) corresponded to a .2% greater likelihood of being chosen by participants, simple $b = .002$, $SE = .0004$, $z = 4.91$, $p < .0001$, OR = 1.002. Therefore, the most masculine Democrat was 8.6% more likely to be selected relative to the least masculine Democrat. With hypothetical vote choice measures repeated within each participant, this analysis had more power than the analysis in Study 1. We also tested whether participants were accurate in their vote choice and found that overall participants were accurate in their vote choice (see Supplemental Material).

We tested the strength of this effect by computing the original regression model while controlling for the same politician and election characteristics as in Study 1. The inclusion of these control variables did not impact the relationships among facial sex typicality, candidate gender, and candidate party, and vote choice (see Table 3 in Supplemental Material for analyses with perceived competence and vote choice).

In addition, we tested the robustness of this effect by substituting subjective ratings of gender typicality for facial sex typicality. The inclusion of gender typicality led to a similar pattern of results for male Republicans and female Democrats (see Supplemental Material for a full description of the results).

Male Republicans were more likely to be selected when they appeared less gender typical (i.e., less masculine). Female Democrats were more likely to be selected when they appeared less gender typical (i.e., less feminine).

In addition, we tested the strength of this effect by randomly sampling one candidate within each electoral race in order to overcome the nested structure of our data. Due to the low number of female Republicans, we elected to keep all of them in our sample. With this procedure, the results of the three-way interaction of primary importance to our hypotheses replicated those of the GEE model reported in the main text.[3]

Discussion

Once again, we found that gendered facial cues predicted the likelihood that a Republican would be chosen in a hypothetical vote, such that more feminine women, but less masculine men, tended to be favored. In addition, and in contrast to Study 1 in which no effects were found for Democratic candidates, we found that among Democrats, less feminine women but more masculine men were preferred. This effect may seem at odds with the results of Study 1, but we suspect it is not as divergent as it may appear. First, whereas in Study 1 we predicted the binary election outcomes for each candidate, in Study 2 we predicted the vote choices of individual observers, thus affording greater precision and power. Second, although the analogous effect did not reach conventional levels of significance, the effect did reveal a non-significant trend in the same direction. Finally, the control afforded by a laboratory setting is likely to have eliminated the impact of extraneous factors that influenced the actual elections (e.g., politician platforms, political orientation of voters, etc.).

General Discussion

In two studies that probed both politicians' actual electoral success and participants' hypothetical vote choices, we found that political success varied as a function of a politician's sex, political party, and facial sex typicality. In Study 1, we found that facial sex typicality predicted actual electoral success. Among Republicans, more sex-typical female candidates and less sex-typical male candidates were more likely to win their elections. Among Democrats, electoral success did not vary as a function of candidate gender and facial sex typicality. In Study 2, we corroborated these effects for observers' hypothetical vote choices. Among Republicans, effects replicated from Study 1. Among Democrats, less sex-typical female candidates and more sex-typical male candidates were more likely to receive a hypothetical vote.

Our finding that the gendered cues of Democrats related to hypothetical votes (Study 2) but not actual votes (Study 1) may seem somewhat surprising. We suspect that this difference is due, at least in part, to characteristics of the observers that we recruited

in Study 2. These participants skewed markedly toward the liberal end of the political continuum. This possibility is consistent with our own prior work. Specifically, we have argued elsewhere that one reason why female Republicans may be more facially feminine is because the conservative constituencies that elected them value such characteristics. Indeed, we found that in conservative districts, less feminine women tend *not* to be chosen (Hehman et al., 2014). Therefore, in an election context, conservatives seem to rely heavily on facial information whereas liberals might modify their decisions based on other aspects of the race. If correct, it may be that our liberal-leaning participants were more readily relying on facial cues in the lab (Study 2) than they would be in a real-world context (Study 1).

These findings highlight an important role for the gendered appearance of politicians in their electoral success, particularly for Republican candidates. This critical importance is likely to have greater implications for female Republicans, leading to unique challenges. Specifically, the party platform, general stereotypes of the party, and a mandate for political competence each align closely with masculine ideals (e.g., Winter, 2010). At the same time, however, the Republican Party also highly values adherence to traditional gender roles (Lye & Waldron, 1997). Republican women, therefore, face a conundrum in which they must simultaneously appear conservative, but also feminine. Some women may overcome this contradiction by advocating their party ideals while simultaneously appearing physically feminine; others may be deemed a poor "fit" within the political establishment and fail to advance entirely.

Importantly, the literature on gender and competence has provided mixed evidence as to whether facial competence predicts electoral success for both men and women. We found that facial competence predicted electoral success for male but not female candidates. This finding aligns with prior work which also found that electoral success was predicted by facial competence for men, but not women (Chiao et al., 2008; Poutvaara et al., 2009). However, our results contradict work by Olivola and Todorov (2010a) finding that facial competence predicted electoral success equally well for male and female candidates. Our focus was on the U.S. House of Representatives, while Olivola and Todorov (2010a) included Senate, House, and gubernatorial elections. Therefore, this discrepancy in findings may be due to the different target populations investigated; however, additional research is necessary to empirically test this claim.

Surprisingly, we found that gendered facial cues predicted vote choices for male Republican candidates in an unexpected way. Contrary to expectations, we did not find that a highly masculine appearance benefited male Republicans. In fact, we observed the opposite pattern. Male Republicans who were *lower* in sex-typical appearance were more likely to be elected by their constituencies and chosen in the hypothetical vote. This finding is intriguing, and we suspect that it occurred for several reasons. First, we observed less variance in male, relative to female, sex typicality, although the variance for the sex typicality of the two groups was not statistically significantly different, $X^2 = .16$, $p = .68$ (see Table 1 in the Supplemental Material). Thus, although the less sex-typical Republicans were more likely to win, in general, these men were less extreme in their sex typicality than their female counterparts.

Second, it is possible that adopting characteristics associated with the *other* party conferred tangible benefits for both male Democrats and Republicans, a phenomenon known as trait trespassing (Hayes, 2005). Male Republicans may have benefited from a less sex-typical appearance despite their party's adherence to traditional gender roles; male Democrats may have benefited from a more sex-typical appearance even though their

party supports policies that are stereotyped as feminine in nature, because these cues signal breadth. Similarly, Democrats running in more conservative areas earned more votes when they appeared more stereotypically Republican (Olivola et al., 2012). Therefore, it may be that male politicians benefit from trespassing onto the opposite party's characteristics, here based on their appearance.

Interestingly, these findings seem to contradict some prior research. Both men and women were perceived as stronger leaders when they exhibited a more masculine appearance (Sczesny, Spreemann, & Stahlberg, 2006) or when they had lower-pitched voices (Klofstad, Anderson, & Peters, 2012). A few methodological differences may help to differentiate these effects from our own. First, these effects tend to be especially pronounced among male perceivers (Anderson & Klofstad, 2012). Second, these studies did not invoke any political context and made no reference to political ideology. Consequently, it may be that leadership in general is associated with masculinity, but that political leadership is more sensitive to the gender-linked values of each party.

Relatedly, it is important to note that the social context in which judgments occur determines how gendered facial cues impact judgments such as voting behavior. Prior work, for example, found that masculine-appearing faces were preferred during wartime, but that feminine-appearing faces were preferred during peacetime (Little et al., 2007; Spisak et al., 2012). Thus, the effects reported herein are likely to fluctuate along with temporal shifts in the political climate. While certainly beyond the scope of this investigation, this possibility offers a fruitful avenue for future research.

The results reported herein provide convergent evidence regarding the role of sex typicality of candidates' appearance and voters' preferences. In particular, they corroborate our own findings where we found similar effects for photographs of contestants in Senate and gubernatorial electoral contests (Hehman et al., 2014). Given this marked level of convergence, these results appear to be robust across different levels of office. Nevertheless, gendered cues may differentially impact election outcomes, depending on the type of race. The impact of gendered appearance may be even more pronounced in primary elections that serve to weed out unfit candidates. If correct, these studies may actually underestimate the potency of gendered appearance-based cues. As such, appearance-based impacts may be more consequential in highly publicized and close electoral races.

Implications of Candidates' Gendered Appearance for Electoral Success

Although our findings support the notion that appearance-based cues may sway elections, it is important to note that these impacts are most likely to operate in constituents who are not invested in or informed about an election outcome. Indeed, nonpartisan or uninformed voters are most likely to utilize appearance-based heuristics in their decision-making process (Johns & Shepard, 2007). For example, Lawson, Lenz, Baker, and Myers (2010) found that attractive and competent candidates compelled greater support based on their television exposure, but only among voters who were low in political knowledge. Though these results suggest that uninformed voters may be more prone to using superficial cues such as candidate appearance to inform their voting decisions, it remains essential to examine which voters are most prone to utilize candidates' sex typicality in their decision making.

Supplemental Material

Supplemental data for this article can be accessed on the publisher's Web site at http://dx.doi.org/10.1080/10584609.2014.958260.

Notes

1. Olivola and Todorov (2010a) found that masculinity was not monotonically related to facial competence for men and for women; rather, both extremely incompetent and extremely competent faces were perceived to be more masculine.

2. The laser facial scans are based on 200 young adults (100 male, 110 female) between 18 and 45 years old. These scans resulted in more than 70,000 vertices pertaining to the structure of the face and more than 100 shape principle components derived from the entire data set of facial scans (Blanz & Vetter, 1999). The geometry of the face is indexed by a shape-vector that is ultimately quantified in an optimization algorithm. This algorithm as it has been created can then be applied to quantify the facial structure of new images. Therefore, we utilized the PhotoFit component to upload a JPEG file of each candidate's photograph. We placed the proper facial markers around the face, and then the program algorithm automatically estimated the three-dimensional shape of each face, resulting in model coefficients that are then stored within the FaceGen program (Blanz & Vetter, 2003). These model coefficients essentially estimate where based on the optimization algorithm a particular image of a person falls within the distribution of the facial scans of individuals. By uploading each face into FaceGen and utilizing the optimization algorithm program, we were able to obtain a quantitative measurement of how sex typical (masculine/feminine) each candidate's facial shape was.

3. We randomly sampled one candidate for each electoral race, though maintaining all of the female Republican candidates in our sample. We tested our focal hypothesis with a model identical to the GEE approach, regressing vote choice onto facial sex typicality, candidate gender, candidate party, and all higher order interactions. Results were conceptually identical to the GEE model, with a significant three-way interaction, $X^2(7) = 403.90$, $p < .0001$. To determine the nature of this interaction, we tested simple slopes separately for Republicans and Democrats.

Among Republican candidates, the candidate gender by facial sex typicality interaction was significant, $b = -.03$, $SE = .007$, $z = -3.68$, $p < .0001$. Replicating the findings in Study 1, among female Republicans, each unit increase in candidate's sex typicality (i.e., more feminine) corresponded to a .4% greater likelihood of being chosen by participants, simple $b = .004$, $SE = .002$, $z = 2.08$, $p = .038$, OR = 1.004. Therefore, the most feminine Republican was 2.4% more likely to receive support relative to the least feminine Republican candidate. Among male Republicans, each unit decrease in a candidate's sex typicality (i.e., less masculine) was associated with a 1% increase in likelihood of being selected, simple $b = -.003$, $SE = .005$, $z = -5.44$, $p < .0001$, OR = .99. Therefore, the least masculine Republican was 15.6% more likely to be selected compared to the most masculine Republican candidate. Among Democratic candidates, the candidate gender by facial sex typicality interaction was also significant, $b = .03$, $SE = .005$, $z = 5.26$, $p < .0001$. Among female Democrats, each unit decrease in a candidate's sex typicality (i.e., less feminine) corresponded to a 1% greater likelihood of being chosen by participants, simple $b = -.004$, $SE = .001$, $z = -4.18$, $p < .0001$, OR = .99. Therefore, the least feminine Democrat was 12.9% more likely to be selected relative to the most feminine Democrat. Among male Democrats, each unit increase in a candidate's sex typicality (i.e., more masculine) corresponded to a .2% greater likelihood of being chosen by participants, simple $b = .002$, $SE = .001$, $z = 3.38$, $p = .0001$, OR = 1.002. Therefore, the most masculine Democrat was 8.6% more likely to be selected relative to the least masculine Democrat.

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