Looks and Sounds Like a Winner: Perceptions of Competence in Candidates' Faces and Voices Influences Vote Choice

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Abstract

Voters are more likely to support candidates whose faces and voices are perceived as competent. However, what is the simultaneous influence of these two characteristics? Here this question is examined with an observational study and an experiment. In the observational study, subjects rated the facial competence of Members of the U.S. House of Representatives. The most and least competent faces identified were paired with recordings of competent (i.e., lower pitched) and incompetent (i.e., higher pitched) voices to create simulated candidates. For the experiment, a separate set of subjects voted between randomly generated pairs of these simulated candidates. The results show that candidates with competent faces or competent voices won more votes, but the influence of facial competence was nearly three times that of vocal competence.

Keywords: Vote choice, candidate characteristics, competence, voice pitch, faces, perception

INTRODUCTION

The standard political science approach to studying electoral outcomes has been to examine the demographic characteristics of the voter. For example, individuals who identify as Democrats tend to vote for Democrats, and Republicans for Republicans (e.g., Campbell et al. 1960). While this line of inquiry has greatly informed our understanding of how we govern ourselves, it negates the role of biology in human decision making. For example, a growing body of research shows that biologically determined vocal and visual signals displayed by candidates influence voters. More

specifically, voters make impressionistic judgments of candidates based on the tone of their voices and the appearance of their faces. This study addresses how both signals—vocal and visual—influence voters when presented simultaneously. The question of how these two signals impact voters in tandem has been understudied.

THE INFLUENCE OF VOCAL AND VISUAL SIGNALS ON VOTERS

In the case of vocal signals, voice pitch—the perception of "highness" or "lowness" as determined by the physiology of the throat—influences how speakers are perceived on a variety of dimensions, including attractiveness (Feinberg et al. 2005a), physical strength (Puts et al. 2012), and dominance (Puts et al. 2007; Tigue et al. 2012). Voice pitch also influences the selection of leaders (Anderson and Klofstad 2012; Gregory and Gallagher 2002; Klofstad 2016; Klofstad et al. 2012; 2015; Laustsen et al. 2015; Tigue et al. 2012). For example, Klofstad (2016) presented subjects with pairs of male and female voices that were manipulated digitally to vary in pitch, and found that men and women prefer to vote for male and female candidates with lower pitched voices. In a study of the 2012 U.S. House of Representative elections, Klofstad (2016) shows that candidates with lower voices won a larger vote share when facing male opponents. Other studies show that candidates with lower voices are preferred because they are perceived as having greater levels of physical prowess, integrity, strength, and competence. (Klofstad et al. 2012; 2015; Tigue et al. 2012).

In the case of visual signals, facial appearance influences perceptions of physical attractiveness (Abend et al. 2015; Feinberg et al. 2005b; Fink et al. 2007; Grammer and Thornhill 1994; Hamermesh and Biddle 2001; Thornhill and Gangestad 1999), masculinity and femininity (Fink et al. 2007; Jones et al. 2010; O'Connor et al. 2013), and physical strength (Fink et al. 2007). How we perceive faces also influences how we select leaders. Perceptions of attractiveness affect elections (Berggren et al. 2010; Chaio et al. 2008; Efran and Patterson 1974; King and Leigh 2009; Laustsen 2014; Lutz 2010; Mattes and Milazzo 2014; Rosar et al. 2008; Sigelman et al. 1987; Surawski and Ossoff 2006; White et al. 2013). For example, Chiao et al. (2008) find that female candidates with attractive faces were more likely to win office. Perceptions of competence also predict election results (Antonakis and Dalgas 2009; Atkinson et al. 2009; Ballew II and Todorov 2007; Chen et al. 2014; Chiao et al. 2008; Laustsen 2014; Rosenberg et al. 1986; Rosenberg and McCafferty 1987; Rule et al. 2010; Spisak 2012; Spisak et al. 2011; Spisak et al. 2012; Surawski and Ossoff 2006; Todorov et al. 2005). For example, Todorov et al. (2005) show that voters judge the competence of candidates after viewing their faces for only 1 second, and those judgments predict whether the candidates won real elections. Perceptions of age and masculinity also influence voters (Carpinella et al. 2015; Keating et al. 1999; Little et al. 2007; Re et al. 2012; Spisak 2012; Spisak et al. 2012). For example, in an experiment using a hypothetical scenario of voting during wartime, voters preferred leaders whose faces were perceived as older and

more masculine (Spisak 2012; Spisak et al. 2012). Perceptions of dominance also affect elections (Laustsen and Petersen 2015). For example, Laustsen and Petersen (2015) find that conservatives are more likely to vote for candidates with dominant looking faces, while liberals prefer candidates with less dominant faces.

While there is a great deal of research on how perceptions of faces and voices affect voters, the effect of these two characteristics in tandem is not well understood. Candidates present vocal and visual signals to voters at the same time, and voters make judgments based on these signals before they even cognate the content of the political messages conveyed by candidates. As such, in order to more fully understand how these characteristics influence how we select leaders, that is, how voters integrate these two signals when evaluating a candidate, we need to examine their effect simultaneously (e.g., Miyake and Zuckerman 1993; Surawski and Ossoff 2006; Zuckerman, et al. 1991).

The only previous study to have examined this question is Surawski and Ossoff (2006). In this study, undergraduate students rated the attractiveness of 50 pictures of male state legislators, and 50 recoded voices of male politicians. The five faces and voices with the highest ratings, the five with the lowest ratings, and the five with ratings closest to the mean, were identified. These 15 faces and 15 voices were paired at random and presented to a convenience sample of 90 adult subjects to rate the simulated leaders' competency, trustworthiness, qualification for office, and leadership ability. Subjects' ratings were lower when a leader was low in physical attractiveness, vocal attractiveness, or both. Physical attractiveness was found to have a stronger influence on subjects' ratings than vocal attractiveness.

The study presented here builds off of Surawski and Ossoff (2006) in five ways. First, the data are based on perceptions of both male and female candidates. Second, as elections are pairwise comparisons between two (or more) candidates, subjects were asked to vote between two candidates with different facial and vocal features. Third, in Surawski and Ossoff (2006), the content of the vocal stimuli was not constant across the recordings. In contrast, in the study presented here, the utterances presented to the subjects were controlled experimentally. Fourth, while voices and faces affect perceptions of attractiveness, it is unclear whether attractiveness is relevant to leadership ability. The data presented here are based on subjects' perceptions of candidate competence, an attribute more germane to political leadership. Fifth, instead of using a small convenience subject pool, the study presented here is based on data collected from a large national sample of American adults.

PREDICTIONS

- Candidates with competent faces will win a larger share of the vote.
- Candidates with competent voices will win a larger share of the vote.
- There will be an additive effect for facial and vocal competence, whereby candidates with competent faces and competent voices will win the most votes.

- In line with the Surawski and Ossoff's (2006) finding that perceptions of candidates' physical attractiveness has a stronger influence on voters than perceptions of candidates' vocal attractiveness, and also given that the area of the human brain responsible for processing visual signals is larger than the area responsible for processing auditory signals (e.g., Rauschecker 2015), perceptions of competence in candidates' faces will have a stronger influence on candidate vote share than perceptions of candidates' vocal competence.
- As the bias in favor of candidates with lower voices is stronger in the case of female candidates (Klofstad 2016), the positive effect of vocal competence on vote share will be stronger for female candidates than male candidates.
- In line with Chiao et al. (2008), who find that visual signals of attractiveness helped female but not male candidates win office, visual signals of competence will have a stronger positive effect on female candidate vote share.

METHODS AND MATERIALS

Facial Stimuli

A survey was administered online to 394 subjects (197 men and 197 women) aged 18 years or older. Pictures of the faces of Members of the 113th House of Representatives from the 2013 Congressional Pictorial Directory (U.S. Government Printing Office 2013) were used as facial stimuli. A random sample of 25 female (12 Democrats and 13 Republicans) and 25 male (11 Democrats and 14 Republicans) pictures was selected from the Directory to present to subjects. Subjects were asked to rate the competence of each of the 50 faces. The faces were grouped into two blocks by sex of member. The order in which these blocks were presented to the subjects, as well as the order of the faces within each block, was randomized. For each face subjects were asked, "On a scale of 0–10, where 0 means "very incompetent" and 10 means "very competent," how would you rate the person in the picture?"

Vocal Stimuli

Five men and five women were recorded saying the sentence, "I urge you to vote for me this November." The vocal stimuli used in the experiment are pairs of digitally manipulated versions of these ten voice recordings. In each pair, one version was manipulated to be higher than the original recording, and the other to be lower. A previous study using these same vocal stimuli verified that voters can perceive which voice of each pair is higher in pitch, and that the lower voices of each pair are perceived as more competent (Klofstad et al. 2012).

Simulated Candidate Stimuli

The five most competent male and female faces and the five most incompetent male and female faces from the observational study were identified. The competent

faces were perceived as significantly more competent than the incompetent faces (male faces: $t_8 = 11.41$, $p < 0.001$; female faces: $t_8 = 9.09$, $p < 0.001$). These faces were paired with the digitally manipulated vocal stimuli to create 400 simulated candidates running in 200 elections. In each simulated election, one candidate was assigned a competent face and the other an incompetent face, and the two faces were paired with a pair of digitally manipulated voices. Whether the competent or incompetent voice was paired with the competent or incompetent face was randomized. The candidates in each election were of the same sex to avoid adding gender bias as a confounding factor in the experiment. Competent faces/voices were coded 1 and incompetent faces/voices were coded 0.

Election Experiment Participants and Procedures

The experiment was administered online to 840 subjects (420 men and 420 women) aged 18 years or older. In each simulated election (example in Figure 1), subjects were instructed to, "Please look at the photos and use the audio players to hear each candidate's voice." They were then asked, "If these two candidates were running against each other in an election, who would you vote for?" The elections were grouped into four blocks:

- Block 1: male competent face paired with competent voice vs. male incompetent face paired with incompetent voice ($N = 50$ elections).
- Block 2: male competent face paired with incompetent voice vs. male incompetent face paired with competent voice ($N = 50$ elections).
- Block 3: female competent face paired with competent voice vs. female incompetent face paired with incompetent voice ($N = 50$ elections).
- Block 4: female competent face paired with incompetent voice vs. female incompetent face paired with competent voice ($N = 50$ elections).

Each subject participated in six randomly selected elections from each block, for a total of 24 elections. The order in which the four blocks of elections were presented, and the order in which the elections within each block were presented, was randomized. Subjects participated in multiple simulated elections to reduce pseudoreplication bias, whereby the idiosyncratic characteristics of any one candidate might influence the results of the experiment (Kroodsma 1990; Machlis et al. 1985). Each election was participated in by an average of 84 subjects (minimum = 59, maximum = 112, SE = 0.44). While a more comprehensive experiment would have presented subjects with a wider variety of candidate pairings (e.g., two candidates both with competent faces, but of varied vocal competence), available resources for subject incentives did not allow for this added complexity (i.e., the experimental design is not full factorial).
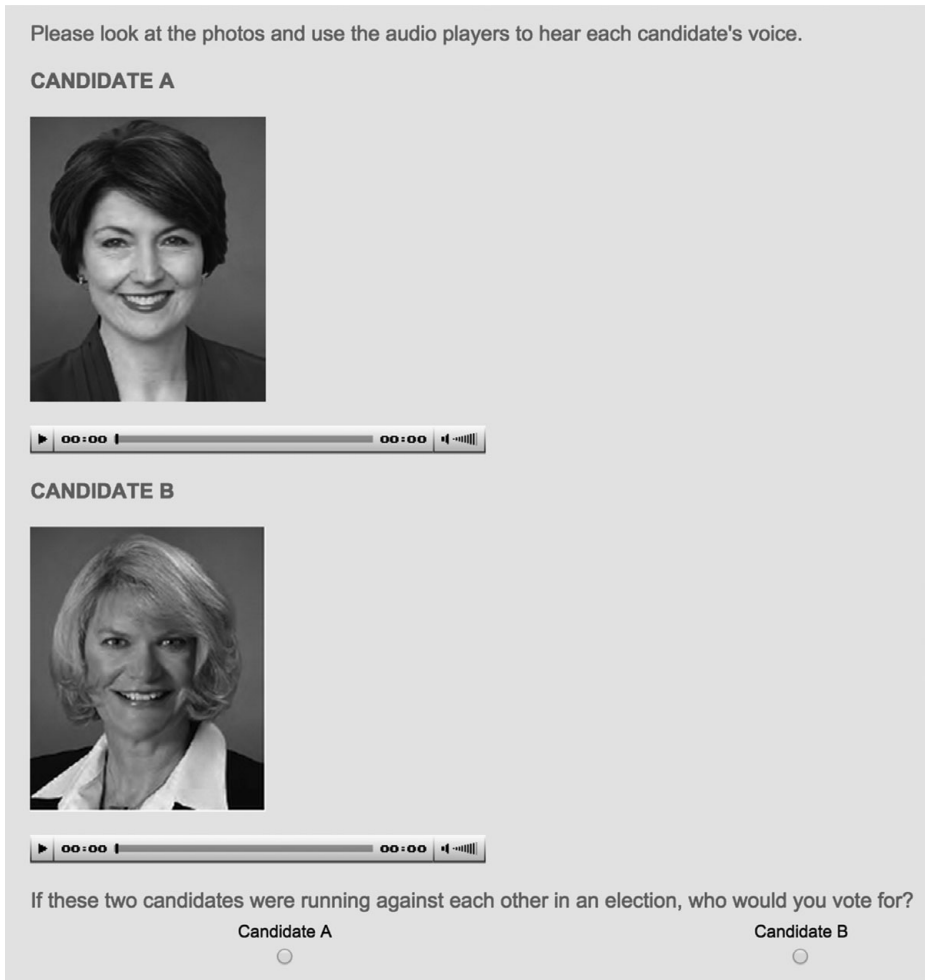
Please look at the photos and use the audio players to hear each candidate's voice.

CANDIDATE A

▶ 00:00 |━━━━━━━━━━━━━━━━━━━ 00:00 | ◄·ıɪ|

CANDIDATE B

▶ 00:00 |━━━━━━━━━━━━━━━━━━━ 00:00 | ◄·ıɪ|

If these two candidates were running against each other in an election, who would you vote for?

Candidate A   Candidate B
○   ○

Figure 1
Example of Ballot Used in Simulated Elections Experiment.

RESULTS

The candidate is the unit of analysis ($N = 400$). Candidates with competent faces ($t_{398} = -23.61$, $p < 0.001$) and competent voices ($t_{398} = -5.75$, $p < 0.001$) won a larger vote share (Figure 2). A regression analysis of vote share with indicators of whether the candidate had a competent face, whether the candidate had a competent voice, and the interaction of the two (Table 1, Column 1) shows that the effect of facial competence is 2.8 times larger than the effect of vocal competence. The statistically insignificant *Competent face*Competent voice* coefficient indicates no discernable additive effect for a candidate having both a competent looking face and a competent sounding voice.
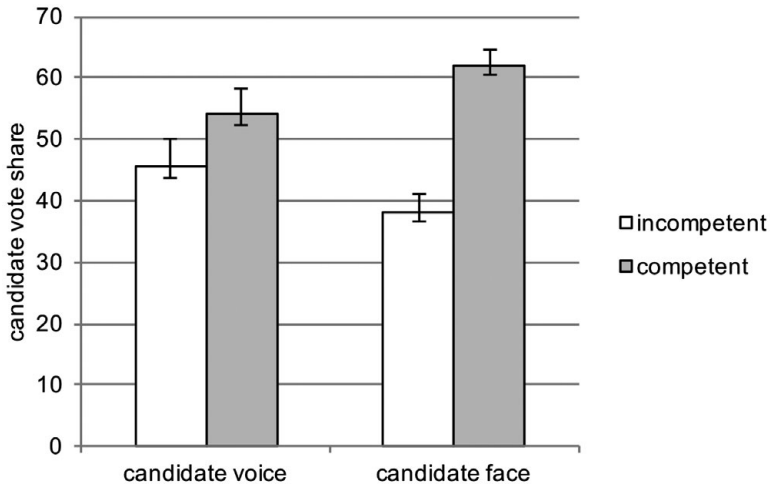
Figure 2

Candidate Vote Share ($+/-$ 95% Confidence Interval) by Vocal and Facial Competence. Candidates with Competent Faces and Competent Voices Won a Larger Share of the Vote.

Table 1

Influence of Candidate Facial and Vocal Competence on Vote Share in Simulated Elections

	(1)	(2)
Candidate has competent face	23.63*** (1.28)	22.49*** (1.68)
Candidate has competent voice	8.56*** (1.28)	3.33* (1.68)
Competent face*Competent voice	−0.003 (0.002)	<0.001 (<0.001)
Candidate is female	–	−6.37*** (1.74)
Competent face*Female	–	2.28 (2.46)
Competent voice*Female	–	10.47*** (2.46)
Competent face*Competent voice*Female	–	−0.006 (0.003)
Constant	33.91*** (0.92)	37.09*** (1.30)
R^2	0.66	0.69
N	400	400

*$p \le 0.05$; ***$p \le 0.001$ (robust standard errors, clustered by election, in parentheses).
Note. Cell entries are linear regression coefficients. Table A2 in the online appendix lists descriptive statistics for the variables included in these models.

To test for effects of candidate sex, a regression analysis of vote share was conducted with indicators of whether the candidate had a competent face, whether the candidate had a competent voice, whether the candidate was female, and the interactions of the three (Table 1, Column 2). The positive and statistically significant *Competent voice*Female* coefficient indicates that having a competent voice was more advantageous for female candidates running against other women (i.e., the research design did not include mixed-sex races). As shown in Figure 3, holding all other factors in the regression model in the second column of Table 1 at their means, the advantage of having a competent sounding voice for women
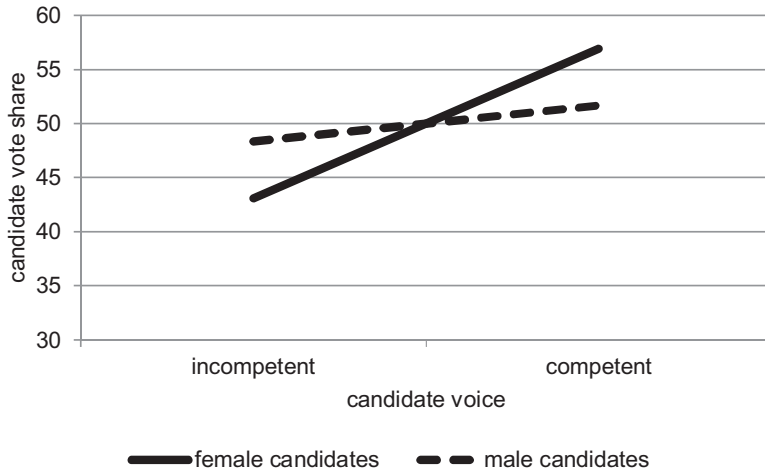
Figure 3

Expected Candidate Vote Share by Candidate Sex and Vocal Competence Based on the Regression Model Presented in the Column 2 of Table 1.

running against other women compared to men running against other men was 10.5 percentage points of vote share.

DISCUSSION AND CONCLUSION

As expected, both facial and vocal competence increase candidate vote share. The additive effect of the two, however, was not statistically significant. This could be because, as predicted, the effect of facial competence was larger than that of vocal competence (i.e., variation in vote share that might be explained by the interaction is already explained by the main effect for facial competence). Voters were not more biased in favor of female candidates with compete faces, but as predicted they were with regard to vocal competence in the case of women running for office against other women.

While these results increase our understanding of voter behavior, future studies should expand upon this one in four ways. First, while the vocal stimuli were manipulated experientially, the difference between the competent and incompetent faces was based on natural variation as determined by ratings made by participants in the observational study. Future studies could use morphing technology to manipulate images of faces experimentally.

Second, future studies should include simulated elections where men and women run against one another. While experiments show that voters generally prefer candidates with lower voices (Anderson and Klofstad 2012; Klofstad 2016; Klofstad et al. 2012; 2015; Laustsen et al. 2015; Tigue et al. 2012), in examining

real elections, Klofstad (2016) finds that men with lower voices are disadvantaged at the polls when facing a female opponent. All told, the robustness of the results presented here should be tested in a mixed-sex candidate context.

Third, due to resource constraints, the study presented here was not full factorial. As such, whether physical appearance matters more for low- vs. high-pitched voices could not be assessed. Future studies should use a full factorial design to build upon the results presented here.

Fourth, while the data presented here show that vocal and visual signals affect electoral outcomes, and while the pairwise comparison task used in this study mimics real elections, a nominal measure of voters' preferences (i.e., did or did not vote for the candidate) does not capture the exact magnitude of the effect of vocal and visual signals on voters' perceptions of candidates. To address this question more directly, future studies could have subjects rate the favorability of candidates on feeling thermometers or Likert-type scales.

In conclusion, given that it is well-established that vote choice is influenced by factors such as partisanship and the state of economy, where does the impact of candidates' vocal and visual signals fit in to our understanding of democratic governance? Continuing to increase our understanding of these types of subtle biological influences on human perception is critical for four reasons. First, physical appearance and tone of voice are the first pieces of information a voter receives about a candidate. Consequently, the impressionistic judgments voters make based on these signals are likely to affect their subsequent deeper judgments about a candidate.

Second, whether it is because of a general lack of political engagement among the public, a sound bite driven 24-hour news cycle, or both, many voters select candidates based on thin judgments of thin information. In this same vein, these types of judgments may be quite influential when traditional voting cues, such as partisanship, are less salient (e.g., non-partisan municipal and judicial elections, and primary elections where the candidates are of the same party).

Third, while facial appearance and tone of voice are biologically informed, one can alter physical appearance and modulate voice pitch within the bounds of those biological constraints. As such, the results here show empirically what political consultants no-doubt already know anecdotally: it pays at the polls for candidates to look and sound competent (with particular emphasis on physical appearance as a more potent signal of competence as evidenced in the data presented here).

Finally, it is important to consider whether these types of impressionistic judgments lead voters to make good choices. More specifically, we have no evidence whether individuals with competent looking faces and competent sounding voices are better leaders. Further study is needed to correlate these signals of perceived competence with objective measures of leadership ability to test whether our bias in favor of competent looking and sounding candidates helps or hinders our ability to govern ourselves.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10.1017/XPS.2017.19

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