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Jaeger, Bastian; Evans, Anthony; van Beest, Ilja

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Facial Appearance and Electoral Success of Male Italian Politicians:
Are Trustworthy-Looking Candidates More Successful in Corrupt Regions?

Bastian Jaeger, Anthony M. Evans, and Ilja van Beest

Tilburg University

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Author Note

Bastian Jaeger, Anthony M. Evans, and Ilja van Beest, Department of Social Psychology, Tilburg University, The Netherlands.

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Correspondence concerning this article should be addressed to Bastian Jaeger, Department of Social Psychology, Tilburg University, P.O. Box 90153, 5000 LE Tilburg, The Netherlands. E-mail: bxjaeger@gmail.com.

Abstract

People rely on the facial appearance of political candidates when voting. Here, we examine whether the perceived competence, trustworthiness, and attractiveness of male Italian mayoral candidates ($n = 150$) predicts their electoral success. Building on situational leadership theory, we also examine whether association between apparent traits and electoral success are moderated by contextual factors. Specifically, we test whether trustworthy-looking politicians are more successful in Southern Italy where political corruption is a more salient issue. Across three preregistered studies ($N = 470$), we find that attractive-looking candidates were more successful. Perceived competence and trustworthiness were not consistently associated with electoral success. Moreover, we do not find evidence that regional variation in corruption moderates the success of trustworthy-looking politicians.

Keywords: trait impressions, voting, corruption, trustworthiness, attractiveness, competence

**Facial Appearance and Electoral Success of Male Italian Politicians:
Are Trustworthy-Looking Candidates More Successful in Corrupt Regions?**

The functioning of democratic political systems requires citizens to elect capable leaders. However, voting decisions are complex and voters often rely on heuristics, simplified decision strategies that require fewer cognitive resources (Quattrone & Tversky, 1988). While some heuristics can lead to accurate inferences under conditions of limited knowledge (e.g., inferring a candidate's stance on policy issues by their party affiliation), other strategies are less justifiable (Kuklinski & Quirk, 2000). For instance, even though trait impressions based on facial appearance are rarely accurate (Olivola & Todorov, 2010b; Todorov & Porter, 2014; but see Lin et al., 2018), they predict the electoral success of political candidates (Olivola & Todorov, 2010). That is, people rely on appearance-based trait impressions when voting.

A host of studies has shown that competent-looking politicians enjoy more political success (Antonakis & Dalgas, 2009; Ballew & Todorov, 2007; Todorov et al., 2005). However, some results suggest that voters are also influenced by other traits, such as the perceived attractiveness, dominance, or sociability of candidates (Berggren et al., 2010; Castelli et al., 2009; Chen et al., 2014; Jäckle et al., 2019). This raises the question of whether effects of specific traits systematically vary across different contexts. Evidence from controlled lab experiments provide initial support for this notion. For example, Little and colleagues (2012) showed that framing a hypothetical election as taking place during a time of war or peace influenced participants' preference for trustworthy-looking or attractive-looking candidates. Specifically, attractive-looking leaders were favored more strongly during a time of war, while trustworthy-looking leaders were favored more strongly during a time of peace, suggesting that which (apparent) traits are favored in politicians may be influenced by the political context in which an election is taking place. However, it is thus far unclear whether the moderating role of election context generalizes to other contextual frames, and whether this effect influences real-world elections.

Here, we analyze results of the 2016 Italian local elections to examine the influence of facial appearance on voting behavior. First, we test whether the perceived attractiveness, competence, or trustworthiness of candidates is related to their electoral success. Second, we investigate whether the salience of a specific political issue—institutional corruption—moderates the association between trait perceptions and electoral success. Specifically, we hypothesize that

voters are more motivated to elect a trustworthy leader when corruption is a salient issue. As a consequence, trustworthy-looking candidates should be more successful in regions where corruption is more prevalent (e.g., in Southern Italy vs. the rest of the country; Linhartova & Pultarova, 2015).

Election Context Moderates Trait Preferences

When asked directly which personality traits a politician should possess, voters primarily mention competence (Miller et al., 1986; Sussman et al., 2013). In line with this explicit preference, Todorov and colleagues (2005) found that appearance-based impressions of competence, but not impressions of trustworthiness, likeability, or attractiveness, are associated with success in elections for the US Senate and House of Representatives. The notion that voters rely on the facial appearance of candidates to make voting decisions was supported by many subsequent studies, which investigated the relationship between facial appearance and political success in a wide range of countries and electoral systems (for a review, see Olivola & Todorov, 2010a). While most studies found that competent-looking politicians are more successful (Antonakis & Dalgas, 2009; Ballew & Todorov, 2007; Castelli et al., 2009; Sussman et al., 2013), impressions of other traits also predict electoral success under certain conditions. For example, Berggren and colleagues (2010) found a positive effect of attractiveness on voting behavior in Finland and similar results have been found in Germany (Rosar et al., 2008) and the United States (Jäckle et al., 2019). In other studies, electoral success was related to perceptions of dominance (Chen et al., 2014; Sussman et al., 2013), sociability (Castelli et al., 2009), or gender-typicality (Hehman et al., 2014).

To account for these findings, researchers have started investigating how the context in which an election is taking place influences the association between specific trait impressions and electoral success. For example, cross-cultural data suggests that competence-related traits are more predictive of electoral success in Western societies (e.g., the United States) than in East Asian societies (e.g., Japan or Taiwan), whereas the opposite pattern holds for trustworthiness-related traits (Chen et al., 2016; Rule et al., 2010). Next to cultural differences, trait preferences may also vary as a function of the political context in which an election is taking place. In general, voters may prefer different traits in political leaders depending on which political issues are particularly salient. This idea follows from situational leadership theory, which stress that leader selection is context-sensitive, with different leader types being favored depending on

which tasks they are expected to perform (Epitropaki & Martin, 2004; Hollander & Julian, 1969; Olivola et al., 2014; Yukl, 1989).

Following this reasoning, Little and colleagues (2014; 2007, 2012) demonstrated that participants' hypothetical voting behavior can be influenced by manipulating the political context of an election. They found that participants had a stronger preference for individuals whose facial trustworthiness had been digitally enhanced in a time of peace, whereas individuals whose facial attractiveness had been digitally enhanced were more strongly favored in a time of war. This pattern suggests that prosocial traits (i.e., trustworthiness) are favored in leaders when the political context is characterized by collaboration, but traits related to health and formidability (i.e., attractiveness) are favored when the political climate is characterized by conflict (for similar results, see Ferguson et al., 2019; Laustsen & Petersen, 2015; Spisak et al., 2012).

The influence of war vs. peace frames on hypothetical votes provides initial evidence for the context-sensitive nature of face-based leader choice in the political domain. It also suggests that impressions of trustworthiness—a trait which should be highly desirable in a politician (Miller et al., 1986)—may influence voting behavior under some (but not all) conditions. It is unclear though (a) whether the effect of political context generalizes to issues other than a country's state of war or peace and (b) whether it extends to real-world elections. Here, we examine if the salience of a different political issue—the prevalence of institutional corruption—moderates which trait perceptions predict electoral success. Corruption is a recurring issue for political systems around the world and considerable resources are devoted to monitoring and diminishing corrupt practices (Jain, 2001). It is also a salient issue for voters as corruption charges lead to a substantial loss in votes (Peters & Welch, 1980; Welch & Hibbing, 1997). Building on these observations, we hypothesize that voters are more motivated to elect a trustworthy candidate when corruption is a salient issue. As a consequence, trustworthy-looking politicians should be more successful in constituencies with high levels of institutional corruption.

The Current Studies

In the current investigation, we attempt to replicate the finding that voters rely on trait impressions from faces when deciding whom to elect. Specifically, we test which traits are associated with of electoral success and whether the effect of trait impressions on voting varies

as a function of political context. To this end, we examine the effect of facial appearance on electoral success in the 2016 Italian local elections. We focus on Italy because Italy exhibits large regional differences in the prevalence of corruption, with substantially higher levels in the south (Del Monte & Papagni, 2007; Fiorino et al., 2012; Linhartova & Pultarova, 2015). We therefore test whether trustworthy-looking politicians are more successful in Southern Italy (compared to the rest of the country).

In all three studies, we measured the perceived competence, trustworthiness, and attractiveness of 150 male mayoral candidates from 75 constituencies. We analyzed election results of the second ballot in which the two candidates with the most votes competed after no candidate reached a majority in the first ballot. We used ratings on the three trait dimensions to predict (a) the winner of the election and (b) the margin of victory. To probe the robustness of our results, we varied whether participants indicated their trait impressions by selecting the candidate scoring higher on a given trait dimension in a two-alternative forced-choice format (Study 1) or by rating all candidates sequentially on a continuous scale (Studies 2 and 3). We also varied whether trait perceptions were assessed with a single trait item (e.g., ratings of trustworthiness; Studies 1 and 3) or with multiple trait items (e.g., ratings of trustworthiness, honesty, and fairness for measuring trustworthiness; Study 2). Finally, we varied whether trait impressions were obtained from American (Study 1) or Dutch participants (Studies 2 and 3).

We recruited participants from outside of Italy to ensure that most, if not all, participants would be unfamiliar with the political candidates. This is crucial because we aimed to assess trait perceptions solely based on candidates' facial appearance and prior knowledge about the candidates may influence participants' ratings. It should also be noted that there is substantial cross-cultural agreement in trait impressions from faces (Cunningham et al., 1995; Langlois et al., 2000; Rule et al., 2010). Moreover, previous studies have shown that, for example, trait ratings by American participants predict election outcomes in Bulgaria (Sussman et al., 2013) and trait ratings by Germany participants prediction election outcomes in the United States (Jäckle et al., 2019).

Methods

The studies were preregistered and all data, preregistration documents, and analysis scripts are available at the Open Science Framework (<https://osf.io/jdqn2/>).¹ We report how our sample sizes were determined, all data exclusions, and all measures in the studies.

Participants. For each trait dimension, ratings from at least 29 independent raters were collected, as previous studies have shown that this provides relatively stable average ratings (Hehman et al., 2018). We asked participants at the end of each study whether they had recognized any of the individuals that were shown in the photos and, in case they answered affirmatively, who they had recognized. While some participants claimed to have recognized at least one candidate (Study 1: 6.12%, Study 2: 8.64%, Study 3: 14.29%), none provided correct names or mentioned the fact that the depicted individuals are Italian politicians.²

Study 1. Participants were 160 workers from Amazon Mechanical Turk who completed the study in return for \$1. Thirteen participants (8.13%) who failed an attention check at the end of the study were excluded, leaving a final sample of 147 participants (43.54% female; $M_{\text{age}} = 32.07$, $SD_{\text{age}} = 8.25$). On average, candidates were rated by 47 participants ($Min = 43$, $Max = 54$) on each of the three trait dimension (competence, trustworthiness, and attractiveness).

Study 2. Participants were 223 Dutch undergraduate psychology students from Tilburg University who participated in return for partial course credit. Three participants (1.35%) who provided the same response across all trials were excluded, leaving a final sample of 231 participants (76.92% female; $M_{\text{age}} = 20.18$, $SD_{\text{age}} = 2.31$). The final sample size was based on the number of students that participated in the study within two weeks. On average, candidates were rated by 31 participants ($Min = 29$, $Max = 33$) on each of the three trait dimension.

Study 3. Participants were 93 Dutch undergraduate psychology students from Tilburg University who participated in return for partial course credit. One participant (1.08%) who

¹ For Study 1 and Study 2, we preregistered to conduct multilevel regression analyses to account for the fact that individual candidates are nested within different municipalities. However, this analysis is not suitable given the dyadic structure of the data in which one candidate's vote share and election outcome is perfectly mirrored by the other candidate's vote share and election outcome. We therefore chose to follow a different analysis strategy to account for the dependencies in our data (see the Results section for more details) and conducted a third study for which the correct analyses were specified a priori.

² Among the people that were purportedly recognized were the actor James Franco, the boxer Nasseem Hamad, and a participant's dentist.

provided the same response across all trials was excluded, leaving a final sample of 92 participants (49.45% female; $M_{age} = 20.87$, $SD_{age} = 2.22$). The final sample size was based on the number of students that participated in the study within two weeks. On average, candidates were rated by 30 participants ($Min = 30$, $Max = 31$) on each trait dimension.

Materials. We retrieved the results of the 2016 Italian local elections. Residents of cities with a population greater than 15,000 could directly vote for different mayoral candidates in a multi-candidate two-round system. For the current analysis, we focused on 126 constituencies in which no candidate received the absolute majority in the first round. In that case, the two candidates who received the most votes competed in a second round which was held two weeks later. In line with our preregistered exclusion criteria, elections with at least one female candidate (36 elections, 28.57%) were excluded to remove the confounding role of gender (Chiao et al., 2008). Next, images of the candidates were downloaded from the internet. We selected photos in which candidates faced the camera with their faces being completely visible. For most candidates, we selected the photo from their election poster, as this was the photo that most voters were exposed to prior to the election. If the election poster could not be retrieved, another photo was selected. The wide majority of candidates were smiling in their photos and we tried to ensure that differences in affective expression between the two candidates were minimal. If one candidate showed a broad smile while the other looked neutral and no other photos could be found for the latter, then the election was excluded from analysis (15 elections, 16.67%). This resulted in a final sample of 75 elections with a total of 150 candidates. The photos were converted to grayscale, cropped so that only the candidate's face and hair were visible, and resized to a height of 300 pixels. For each election, we recorded which of the two candidates won and their margin of victory, which constituted our dependent variables. We also recorded and whether the candidate was the incumbent or running against the incumbent and whether the constituency was located in the south ($n = 34$). Southern Italy encompasses the administrative regions of Abruzzo, Apulia, Basilicata, Campania, Calabria, Molise, and Sicily.

Procedure. To measure candidates' perceived competence, trustworthiness, and attractiveness, participants, who were unaware of the context of the study and the identity of the people shown in the photos, evaluated all candidates on one specific trait dimensions. Each participant rated the candidates on only one trait in order to avoid consistency effects in ratings (Penton-Voak et al., 2006).

Study 1. In Study 1, binary trait ratings on three dimensions were collected. Participants were randomly allocated to one of three conditions which determined whether they would rate the candidates' competence, trustworthiness, or attractiveness. They saw the 75 pairs of candidates in a random order and were asked to select the candidate that looks more *competent*, *trustworthy*, or *attractive* depending on the condition. The percentage of participants who selected a given candidate as scoring higher than his opponent served as our measure of perceived competence, trustworthiness, and attractiveness.

Study 2. In Study 2, trait ratings were assessed with Likert scales. Participants were randomly allocated to one of the seven trait conditions: Perceived competence was measured via ratings of *competence*, *capability*, and *intelligence*, perceived trustworthiness via ratings of *trustworthiness*, *honesty*, and *fairness*, and perceived attractiveness via ratings of *attractiveness*. The 150 photos were rated in a random order on a 9-point scale ranging from *not at all* [trait] (1) to *extremely* [trait] (9). Averaged ratings across all participants showed acceptable to excellent internal consistency (competence: ICC(3, 1) = .763, capability: ICC(3, 1) = .798, intelligence: ICC(3, 1) = .861, trustworthiness: ICC(3, 1) = .786, honesty: ICC(3, 1) = .789, fairness: ICC(3, 1) = .851, attractiveness: ICC(3, 1) = .942; all $ps < .001$). A confirmatory factor analysis indicated that a three-factor structure adequately fit ratings on the seven trait dimensions: $\chi^2(12) = 25.68$, $p = .012$, RMSEA = .087, SRMR = .036, CFI = .984. Therefore, ratings of *competence*, *capability*, and *intelligence* were averaged to form a competence score; ratings of *trustworthiness*, *honesty*, and *fairness* were averaged to form a trustworthiness score; and ratings of attractiveness constituted a candidate's attractiveness score. We created relative trait scores per election by subtracting the runner-up's trait score from the winner's trait score. In other words, each candidate's trait scores reflected their perceived trustworthiness, competence, or attractiveness *relative* to their opponent.

Study 3. In Study 3, trait ratings were assessed with Likert scales. Participants were randomly allocated to one of three conditions which determined whether they would rate candidates' *competence*, *trustworthiness*, or *attractiveness*. The 150 images were rated in a random order on a 9-point scale ranging from *not at all* [trait] (1) to *extremely* [trait] (9). Averaged ratings across all participants showed acceptable to good internal consistency (competence: ICC(3, 1) = .792, trustworthiness: ICC(3, 1) = .814, attractiveness: ICC(3, 1) = .895; all $ps < .001$). For each candidate, ratings on the three dimensions were averaged across all

participants and this served as our measure of perceived competence, trustworthiness, and attractiveness. We again created relative trait scores per election by subtracting the runner-up's trait score from the winner's trait score.

Analysis plan & sensitivity analysis. All trait scores were z -standardized to allow for comparisons between the studies. In all three studies, we tested for the effects of facial appearance on election outcomes by predicting in separate models (a) the winner of the election and (b) the margin of victory with candidates' perceived facial competence, trustworthiness, and attractiveness. We also tested whether the effect of trait perceptions varied as a function of the geographical location of a constituency (south vs. rest of the country). We control for incumbency status of the two candidates in all regression analyses as incumbents often have the advantage over political challengers (Cox & Katz, 1996). All analyses were conducted in R (R Core Team, 2020).

For each effect of interest, a sensitivity analysis was conducted to determine the minimum effect size we were able to detect with 80% power (and $\alpha = .05$). As software commonly used for sensitivity analyses, such as G*Power (Faul et al., 2007), does not support dyadic data, we relied on the *simr* package in R (Green & Macleod, 2016). The package does not provide a function specifically designed for conducting sensitivity analyses. However, it can provide estimates of observed power for coefficients in regression models. For each of our models, we systematically varied the effect size for all effects of interest and computed observed power. Performing power calculations across a range of effect sizes allowed us to determine the minimum effect size at which our model had at least 80% power to detect a significant effect.

Regarding the effects of perceived competence, trustworthiness, and attractiveness on the percentage of received votes (i.e., the winner's margin of victory), analyses showed that we had 80% power to detect an increase of 2.10 percentage points, 2.19 percentage points, and 2.08 percentage points, respectively. We had 80% power to detect a difference of 2.14 percentage points for the interaction effect between perceived trustworthiness and geographical location of the constituency. Regarding the effects of perceived competence, trustworthiness, and attractiveness on the likelihood of a candidate's success, analyses showed that we had 80% power to detect odds ratios of 1.60, 1.69, and 1.62, respectively. We had 80% power to detect an odds ratio of 1.59 for the interaction effect between perceived trustworthiness and geographical location of the constituency.

Results

The average margin of victory was 7.84 percentage points with a median of 5.72 percentage points ($SD = 6.54$, $Min = 0.14$, $Max = 25.05$). Twenty-five elections (33%) featured an incumbent. For each study, we computed correlations between candidates' perceived attractiveness, competence, and trustworthiness and incumbency status. A random-effects meta-analysis across the three studies showed that incumbency status was positively correlated with competence ratings, $r = .10$, 95% CI [.01, .20], $p = .029$. There were no significant correlation between incumbency status and attractiveness ratings, $r = -.07$, 95% CI [-.17, .02], $p = .12$, or trustworthiness ratings, $r = .06$, 95% CI [-.03, .15], $p = .21$. Trustworthiness ratings were moderately correlated with competence ratings, $r = .42$, 95% CI [.28, .55], $p < .001$, and attractiveness ratings, $r = .47$, 95% CI [.34, .61], $p < .001$. There was no significant correlation between competence ratings and attractiveness ratings, $r = .07$, 95% CI [-.07, .20], $p = .33$.

We also conducted an exploratory analysis of Google Trends data to test if political corruption is a more salient issue in Southern Italy. Google Trends provides access to the number of search queries for specific terms across different time frames and geographical locations (Choi & Varian, 2012). We recorded the number of searches that contained the word "corruption" (in Italian) across different Italian regions for four time windows: one month, three months, six months, and twelve months prior to the election. For each time window, the number of searches were rescaled to range from 0 to 100. Data for two southern regions was unavailable for the one-month time window. Corruption-related searches were more prevalent in southern regions (vs. the rest of the country) one month prior to the election (south: $M = 42.36$, $SD = 23.65$, rest: $M = 24.54$, $SD = 9.47$), $t(24.67) = 3.39$, $p = .002$, $d = 0.90$, three months prior to the election (south: $M = 58.18$, $SD = 14.48$, rest: $M = 41.59$, $SD = 14.24$), $t(70.01) = 4.98$, $p < .001$, $d = 1.15$, six months prior to the election (south: $M = 64.50$, $SD = 13.04$, rest: $M = 53.85$, $SD = 15.37$), $t(72.95) = 3.25$, $p = .002$, $d = 0.75$, and twelve months prior to the election (south: $M = 64.82$, $SD = 14.86$, rest: $M = 56.27$, $SD = 14.10$), $t(68.94) = 2.54$, $p = .013$, $d = 0.59$. These results lend support to our assumption that corruption is a more salient issue in the south of Italy.

Margin of victory. First, we examined whether candidates' facial appearance predicted the margin of victory (i.e., candidates' relative vote share). We estimated OLS regression models in which vote share was simultaneously regressed on candidates' perceived attractiveness, competence, and trustworthiness. Due to the dyadic structure of our data, for any given election,

one candidate's data (e.g., their vote share, their relative attractiveness) always perfectly mirrored their opponent's data. To account for this dependency, we randomly selected one candidate from each election and conducted our analyses on this sample of 75 candidates. However, results of these analyses vary depending on the specific combination of winners and runner-ups that are sampled. Therefore, we selected and analyzed 100,000 random samples of 75 candidates that included one candidate from each election. We calculated mean estimates for our predictors across all randomly drawn samples. This bootstrapping procedure was performed for each study. Finally, the results of the three studies were aggregated in a random-effects meta-analysis (see Figure 1).³

Results showed that, across the three studies, perceived attractiveness positively predicted vote share, $\beta = 2.977$, $SE = 0.765$, 95% CI [1.478, 4.476], $z = 3.89$, $p < .001$. Surprisingly, perceived competence *negatively* predicted vote share, $\beta = -1.676$, $SE = 0.745$, 95% CI [-3.137, -0.216], $z = 2.25$, $p = .025$. Candidates who scored one standard deviation higher on attractiveness received 2.98 percentage points more votes whereas candidates who scored one standard deviation higher on competence received 1.68 percentage points fewer votes. We did not find evidence that perceived trustworthiness was related to vote share, $\beta = 0.102$, $SE = 0.818$, 95% CI [-1.503, 1.706], $z = 0.12$, $p = .90$.⁴

We also examined the influence of regional variation in corruption by estimating a second model in which we added an interaction effect between the geographical region in which an election took place (dummy-coded 0.5 for the south and -0.5 for all other regions) and candidates' perceived trustworthiness. This interaction effect was significant but in the opposite direction of our hypothesis (i.e., trustworthiness had *less* of an impact in the south), $\beta = -2.907$, $SE = 1.379$, 95% CI [-5.592, -0.222], $z = 2.12$, $p = .034$. Perceived trustworthiness was negatively associated with vote share in the south, $\beta = -3.851$, $SE = 1.281$, 95% CI [-6.362, -1.339], $z = 3.01$, $p = .003$, and positively associated with vote share in the north, $\beta = 3.114$, $SE = 1.048$, 95% CI [1.060, 5.169], $z = 2.97$, $p = .003$. We also explored whether associations between

³ The pattern of results did not change when analyzing median estimates, instead of mean estimates. Detailed statistics for each study can be found in the [Supplemental Materials](#)

⁴ We also regressed vote share on each trait dimension separately. This again yielded a positive effect of perceived attractiveness, $\beta = 2.823$, $SE = 0.681$, 95% CI [1.488, 4.158], $z = 4.15$, $p < .001$, and no effect of perceived trustworthiness, $\beta = 0.751$, $SE = 0.697$, 95% CI [-0.616, 2.117], $z = 1.08$, $p = .28$. The effect of perceived competence was negative but only marginally significant, $\beta = -1.295$, $SE = 0.703$, 95% CI [-2.672, 0.083], $z = 1.84$, $p = .066$.

vote share and perceived attractiveness or competence differed between Southern Italy and the rest of the country. There was no significant interaction effect between region and perceived attractiveness, $\beta = 0.190$, $SE = 1.412$, 95% CI [-2.578, 2.957], $z = 0.13$, $p = .89$, but the interaction effect between region and perceived competence was significant, $\beta = 4.361$, $SE = 1.359$, 95% CI [1.697, 7.025], $z = 3.21$, $p = .001$. Perceived competence was positively associated with vote share in the south, $\beta = 2.832$, $SE = 1.406$, 95% CI [0.076, 5.588], $z = 2.01$, $p = .044$, but negatively associated with vote share in the north, $\beta = -4.356$, $SE = 0.851$, 95% CI [-6.024, -2.688], $z = 5.12$, $p < .001$.

In sum, candidates' perceived attractiveness and competence, but not their perceived trustworthiness, predicted their vote share with attractive-looking candidates receiving more votes and competent-looking candidates receiving fewer votes. The association between perceived trustworthiness and vote share significantly differed between Southern Italy and the rest of the country. However, the observed pattern was opposite to our prediction: More trustworthy-looking politicians received fewer votes in the south, but more votes in the north.

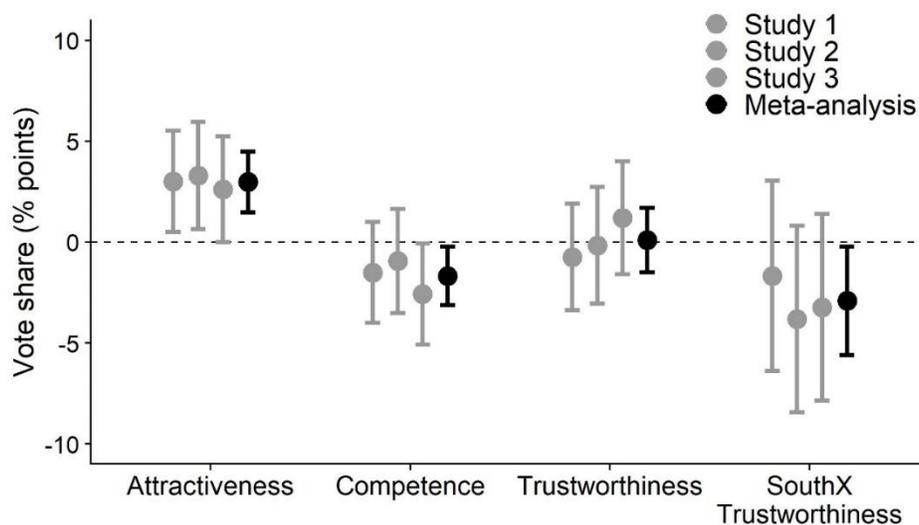


Figure 1. The influence of winners' facial appearance on the margin of victory. The graph displays the results of the three studies (starting with Study 1 on the left) and the meta-analytic estimates. In a first model, vote share was regressed on candidates' perceived trustworthiness, competence, and attractiveness while controlling for incumbency status. In a second model, an interaction term between the region in which an election took place (dummy-coded 0.5 for the south and -0.5 for all other regions) and perceived trustworthiness was added.

Electoral success. Next, we examined whether candidates' facial appearance predicted their likelihood of winning the election. We estimated logistic regression models in which election outcome (0 = candidate lost, 1 = candidate won) was regressed on the candidates' perceived attractiveness, competence, and trustworthiness. We followed the same bootstrapping procedure as described before and the results of the three studies were again aggregated in a random-effects meta-analysis (see Figure 2).

Results showed that, across the three studies, perceived attractiveness predicted electoral success, $\beta = 0.647$, $SE = 0.179$, 95% CI [0.297, 0.998], $z = 3.62$, $p < .001$. Candidates who scored one standard deviation higher on attractiveness were 1.91 times more likely to win their election. We did not find evidence that perceived competence, $\beta = -0.260$, $SE = 0.162$, 95% CI [-0.577, 0.057], $z = 1.61$, $p = .11$, or perceived trustworthiness were related to electoral success, $\beta = -0.100$, $SE = 0.178$, 95% CI [-0.449, 0.250], $z = 0.56$, $p = .58$.⁵

We also examined the influence of regional variation in corruption on the predictive power of perceived trustworthiness. A second model was estimated in which we added an interaction effect between the geographical region in which an election took place (dummy-coded 0.5 for the south and -0.5 for all other regions) and candidates' perceived trustworthiness. This interaction effect was not significant, $\beta = -0.505$, $SE = 0.310$, 95% CI [-1.113, 0.103], $z = 1.63$, $p = .10$. We also explored whether associations between electoral success and perceived attractiveness or competence differed between Southern Italy and the rest of the country. There were no significant interaction effects between region and perceived attractiveness, $\beta = -0.140$, $SE = 0.331$, 95% CI [-0.787, 0.508], $z = 0.42$, $p = .67$, or region and perceived competence, $\beta = 0.447$, $SE = 0.317$, 95% CI [-0.175, 1.069], $z = 1.41$, $p = .16$.

In sum, candidates' perceived attractiveness, but not their perceived competence or trustworthiness, predicted their likelihood of winning the election with attractive-looking candidates being more successful. Crucially, we did not find evidence that perceived trustworthiness is more predictive of electoral success in Southern Italy compared to the rest of the country.

⁵ We also regressed election outcome on each trait dimension separately. This again yielded a positive effect of perceived attractiveness, $\beta = 0.544$, $SE = 0.154$, 95% CI [0.242, 0.847], $z = 3.52$, $p < .001$, no effect of perceived competence, $\beta = -0.223$, $SE = 0.142$, 95% CI [-0.501, 0.055], $z = 1.57$, $p = .12$, and no effect of perceived trustworthiness, $\beta = 0.076$, $SE = 0.138$, 95% CI [-0.196, 0.347], $z = 0.55$, $p = .58$.

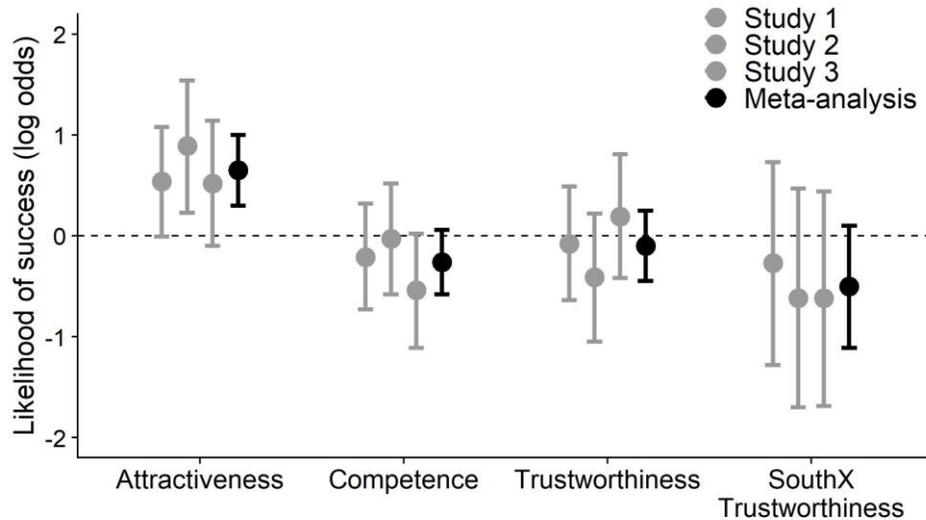


Figure 2. The influence of candidates' facial appearance on their likelihood of winning the election. The graph displays the results of the three studies (starting with Study 1 on the left) and the meta-analytic estimates. In a first model, election outcome was regressed on candidates' perceived trustworthiness, competence, and attractiveness while controlling for incumbency status. In a second model, an interaction term between the geographical region in which an election took place (dummy-coded 0.5 for the south and -0.5 for all other regions) and perceived trustworthiness was added.

Exploratory robustness checks. We conducted several exploratory analyses to probe the robustness of our results. First, we re-ran our regression models with additional control variables. We included population size, voter turnout, and dummy variables indicating whether the candidate was a member of the Five Star Movement or running against one. The Five Star Movement is a recently established party whose political agenda includes a strong anti-establishment and anti-corruption stance (Mosca, 2014). Perceived attractiveness still positively predicted vote share, $\beta = 2.678$, $SE = 0.769$, 95% CI [1.172, 4.184], $z = 3.48$, $p < .001$, and there was no effect of perceived trustworthiness, $\beta = -0.609$, $SE = 0.809$, 95% CI [-2.194, 0.976], $z = 0.75$, $p = .45$. The effect of perceived competence was no longer significant, $\beta = -0.928$, $SE = 0.754$, 95% CI [-2.406, 0.550], $z = 1.23$, $p = .22$. There was no significant interaction effect between region and perceived trustworthiness on vote share, $\beta = 0.001$, $SE = 3.248$, 95% CI [-6.365, 6.266], $z < 0.01$, $p > .99$. Moreover, perceived attractiveness still positively predicted electoral success, $\beta = 0.599$, $SE = 0.191$, 95% CI [0.225, 0.972], $z = 3.14$, $p = .002$, but perceived competence, $\beta = -0.181$, $SE = 0.180$, 95% CI [-0.533, 0.171], $z = 1.01$, $p = .31$, and perceived trustworthiness, $\beta = -0.122$, $SE = 0.193$, 95% CI [-0.500, 0.256], $z = 0.63$, $p = .53$, did not. There

was also no significant interaction effect between region and perceived trustworthiness on electoral success, $\beta = 0.007$, $SE = 0.757$, 95% CI [-1.477, 1.492], $z = 0.01$, $p = .99$.

Second, our analyses included two municipalities located on the island of Sardinia. While Sardinia is sometimes treated as a separate region altogether (e.g., Bigoni et al., 2016), it is similar to the island of Sicily and the southern part of mainland Italy—both of which were coded as being part of the south—in regards to the prevalence of corruption (Fiorino et al., 2012). We therefore recoded the two Sardinian municipalities as belonging to the south (i.e., the region where we expected to find stronger effects of perceived trustworthiness). The interaction effect between region and perceived trustworthiness was only marginally significant for predicting the vote share, $\beta = -2.653$, $SE = 1.382$, 95% CI [-5.361, 0.055], $z = 1.92$, $p = .055$, and not significant for predicting the likelihood of success, $\beta = -0.314$, $SE = 0.308$, 95% CI [-0.918, 0.291], $z = 1.02$, $p = .31$.

Finally, we analyzed Google Trends data for a more fine-grained analysis of how regional variation in corruption salience influence the success of trustworthy-looking candidates. Thus, instead of including a dummy variable for region (south vs. rest of the country), we included a variable indicating the relative frequency of Google searches that included the word “corruption” in the specific region (ranging from 0 indicating no searches to 100 indicating the number of searches in the region with the highest search frequency). We analyzed four time windows: one month, three months, six months, and twelve months prior to the election. We found no significant interaction effect between the number of Google searches and perceived trustworthiness on vote share (one-month window: $\beta = -0.047$, $SE = 0.065$, 95% CI [-0.175, 0.081], $z = 0.72$, $p = .47$, three-month window: $\beta = -0.036$, $SE = 0.054$, 95% CI [-0.141, 0.069], $z = 0.68$, $p = .50$, six-month window: $\beta = 0.025$, $SE = 0.057$, 95% CI [-0.086, 0.136], $z = 0.44$, $p = .66$, twelve-month window: $\beta = 0.004$, $SE = 0.054$, 95% CI [-0.102, 0.110], $z = 0.07$, $p = .94$) or electoral success (one-month window: $\beta = 0.009$, $SE = 0.016$, 95% CI [-0.023, 0.041], $z = 0.56$, $p = .58$, three-month window: $\beta = -0.005$, $SE = 0.012$, 95% CI [-0.028, 0.018], $z = 0.45$, $p = .66$, six-month window: $\beta = 0.009$, $SE = 0.012$, 95% CI [-0.016, 0.033], $z = 0.68$, $p = .49$, twelve-month window: $\beta = -0.009$, $SE = 0.012$, 95% CI [-0.032, 0.015], $z = 0.73$, $p = .47$).

General Discussion

The current set of studies investigated the association between appearance-based trait impressions and voting decisions. Analyzing data from the 2016 Italian local elections ($n = 150$

male candidates), we found that more attractive-looking candidates received more votes and were more likely to win their election. The size of this relationship was not trivial in the context of the current election. Candidates who scored one standard deviation higher on perceived attractiveness received 2.98 percentage points more votes and were almost twice as likely to win. We found no evidence that the perceived trustworthiness of candidates was related to their electoral success. Our results are therefore in line with previous studies showing that attractive politicians are more successful (Berggren et al., 2010; Jäckle et al., 2019; King & Leigh, 2009; Rosar et al., 2008), whereas perceived trustworthiness seems to be unrelated to electoral success (Berggren et al., 2010; Todorov et al., 2005).

The results for perceived competence were more ambiguous. Contrary to previous studies (Ballew & Todorov, 2007; Todorov et al., 2005), we found a negative effect of perceived competence on vote share. However, the effect was smaller than the minimum effect size we were able to detect with 80% power, making a false positive result more likely. Exploratory analyses also showed that the effect was not robust to controlling for additional variables (e.g., turnout) and we found no significant effect of perceived competence on the likelihood of success. We therefore conclude that the present results do not provide clear support for the idea that perceived competence is related to electoral success.

While our findings replicate the effect of facial appearance on voting behavior, our main aim was to test predictions from situational leadership theory, which emphasizes the context-specific nature of leader selection (Epitropaki & Martin, 2004; Hollander & Julian, 1969; Olivola et al., 2014; Yukl, 1989). To this end, we examined whether the effect of trait perceptions were moderated by the political context in which the elections took place. Specifically, we tested whether trustworthy-looking politicians would be more successful Southern Italy where corruption is more prevalent and where voters might therefore be more motivated to elect a trustworthy leader. Across the three studies, we did not find support for this hypothesis. We also analyzed the frequency of Google searches that included the term corruption as a proxy for the salience of political corruption. Search queries were more frequent in the south, suggesting that corruption is indeed a more salient issue in Southern Italy, but the salience of corruption (as measured with Google searches) did not moderate the electoral success of trustworthy-looking politicians. Overall, the present results do not provide support for the hypothesis that

trustworthy-looking candidates are more successful in regions where political corruption is more salient.

In fact, we did not find any evidence that apparent trustworthiness positively affected vote share or the likelihood of electoral success. This may seem surprising as morality judgments are a strong predictor of overall person evaluations (Brambilla et al., 2011; Goodwin et al., 2014) and people name morality-related traits such as honesty and incorruptibility as traits that a politician should possess (Miller et al., 1986; Sussman et al., 2013). Previously reported null results for the effect of perceived trustworthiness on electoral success may have been due to the fact that the majority of studies were conducted in countries with relatively low levels of institutional corruption, such as Finland (Berggren et al., 2010) and the United States (Todorov et al., 2005). In these countries, voters may be less concerned with electing a potentially corrupt leader, placing more weight on other traits such as competence. However, investigations in countries with higher levels of corruption such as Bulgaria (Sussman et al., 2013) or Italy (Castelli et al., 2009) did not find a positive relationship between trustworthiness-related traits (e.g., morality, honesty/incorruptibility) and electoral success either. The current results are in line with these findings and suggest that the apparent trustworthiness of political candidates is not associated with their electoral success, even in countries where levels of institutional corruption are relatively high.

Limitations and Future Directions

Given the higher levels of corruption in Southern Italy, some candidates in our sample might have been accused of (or even directly involved in) corrupt practices. Even if voters in the south are more concerned with electing a trustworthy candidate, corruption allegations probably constitute a stronger indicator of a candidate's trustworthiness, overriding any effect of facial appearance. In other words, given the prevalence of corruption in Italy, voters might be more knowledgeable about the trustworthiness of candidates because of their (alleged) links to corrupt practices and rely on this knowledge, rather than appearance-base impressions, when making voting decision. Future studies could examine this by investigating the effect of corruption under more controlled conditions in the lab. Following the procedure of Little and colleagues (2012), studies could test whether participants vote more often for individuals whose perceived trustworthiness was digitally enhanced when institutional corruption is made salient.

An alternative interpretation of the current null results is that trait preferences for politicians are in fact stable and that the same trait perceptions affect voting decisions across different contexts. However, this view cannot explain why different traits have been linked to electoral success in previous studies (Berggren et al., 2010; Castelli et al., 2009; Chen et al., 2014; Todorov et al., 2005).

Another possibility is that context only moderates explicitly stated preferences. Trait judgments from faces occur spontaneously and quickly (Klapper et al., 2016; Willis & Todorov, 2006) and voters may be unaware of their influence. This suggests that the effect of trait impressions on voting may not be susceptible to voters' context-specific leader preferences. We do not think that this explanation for the current null results is likely though, as there is ample evidence showing that the effect of facial appearance on decisions varies across different contexts. For example, preferences for dominant-looking partners are stronger when intergroup conflict is made salient (Hehman et al., 2015). In the political domain, cultural differences (Chen et al., 2012; Rule et al., 2010) and the political knowledge of voters (Berggren et al., 2017; Lenz & Lawson, 2011) have been shown to moderate how much voters rely on the facial appearance of candidates when making voting decisions. Previously mentioned work by Little and colleagues (2014; 2007, 2012) also demonstrates that leaders with different facial appearance are favored when an election is framed as taking place during a time of war or peace. In sum, these findings suggest that contextual factors can moderate the effect of trait perceptions on decision-making.

It is also plausible that different traits are preferred at different stages of the decision-making process. For example, Re and Rule (2017) found that faces of mafia members were perceived to be more powerful but less socially skilled than faces of lawyers, suggesting that different traits are valued in these two groups. However, this pattern reversed when analyzing rank attainment within groups: Perceived social skills were correlated with the rank of mafia members, while perceived power was correlated with the rank of lawyers. Thus, distinct traits were related to selection into a group and rank attainment within the group. In the context of political elections, it may be the case that certain traits are required to become a politician, to be nominated as a candidate, or to survive a preliminary round, whereas other traits are related to electoral success. It is unlikely though, that this feature can explain diverging results between the current study and previous investigations. Similar to previous studies showing that competent-

looking politicians are more successful (Antonakis & Dalgas, 2009; Ballew & Todorov, 2007; Todorov et al., 2005), we analyzed results from the second round of run-off elections, but found no effect of perceived competence.

One shortcoming of the current set of studies was the limited number of constituencies. Our sample size was constrained by the number of constituencies that met our predefined inclusion criteria. For example, we decided to discard all elections for which we were not able to find a suitable photo for both candidates. Our sample of 75 constituencies was larger than that of most studies which previously examined (and found) effects of facial appearance on election outcomes (Castelli et al., 2009; Chen et al., 2012, 2014, 2016; Rule et al., 2010). Nonetheless, it might have been insufficient to detect regional differences in the effect of perceived trustworthiness. Future studies should consider a wider set of constituencies to ensure that the failure to find support for our central hypothesis was not due to insufficient power.

Due to the small number of elections involving female candidates, the current analyses focused solely on male politicians. This constrains the generalizability of our findings, as a candidate's gender can influence the relationship between facial appearance and voting decisions (Carpinella et al., 2016; Chiao et al., 2008; Hehman et al., 2014). For example, Chiao and colleagues (2008) found that male candidates were seen as more competent than female candidates and perceived competence positively influenced hypothetical voting decisions. More relevant for the results of the current study is the question whether a candidate's gender moderates the relationship between trait impressions and electoral success. Chiao and colleagues (2008) found that attractiveness was a positive predictor of hypothetical votes for female, but not male candidates. However, real-world election data from Finland showed that both male and female candidates received more votes when they looked attractive (Berggren et al., 2010). In a similar vein, Jäckle and colleagues (2019) found that attractiveness was related to electoral success in all-male elections and in mixed elections (with either a male or a female winner). Attractiveness was not related to electoral success in all-female elections, but this finding was only based on 15 elections. Thus, the current evidence on whether candidates' gender influences the effect of facial appearance on voting decisions is mixed.

Finally, more studies are needed to elucidate which factors influence the size of appearance effects in political elections. While a growing literature suggests that the facial appearance of candidates influences voting decisions in many different countries and election

formats (Chen et al., 2012; Olivola & Todorov, 2010a; Rule et al., 2010), these effects are likely not universal. For example, Mattes and Milazzo (2014) found associations between facial appearance and the outcomes of British parliamentary elections, but only in elections that were won by a small margin. These results suggest that the influence of facial appearance may be attenuated—or even disappear entirely—when more diagnostic cues are available.

Conclusion

Even though we did not find any evidence that corruption moderates the success of trustworthy-looking politicians, our results do support the general notion that the facial appearance of political candidates is associated with voting behavior. In the context of the 2016 Italian local elections, attractive-looking candidates had a non-trivial advantage over their less attractive-looking opponents. Specifically, candidates who scored one standard deviation higher on perceived attractiveness received 2.98 percentage points more votes and were 1.91 times more likely to win. Thus, our results suggest that people rely on trait impressions from faces even when making such consequential decisions as whom to elect as their political leader.

References

- Antonakis, J., & Dalgas, O. (2009). Predicting elections: Child's play! *Science*, *323*, 1183.
<https://doi.org/10.1126/science.1167748>
- Ballew, C. C., & Todorov, A. (2007). Predicting political elections from rapid and unreflective face judgments. *Proceedings of the National Academy of Sciences of the United States of America*, *104*(46), 17948–17953. <https://doi.org/10.1073/pnas.0705435104>
- Berggren, N., Jordahl, H., & Poutvaara, P. (2010). The looks of a winner: Beauty and electoral success. *Journal of Public Economics*, *94*(1–2), 8–15.
<https://doi.org/10.1016/j.jpubeco.2009.11.002>
- Berggren, N., Jordahl, H., & Poutvaara, P. (2017). The right look: Conservative politicians look better and voters reward it. *Journal of Public Economics*, *146*, 79–86.
<https://doi.org/10.1016/j.jpubeco.2016.12.008>
- Bigoni, M., Bortolotti, S., Casari, M., Gambetta, D., & Pancotto, F. (2016). Amoral familism, social capital, or trust? The behavioural foundations of the Italian North–South divide. *Economic Journal*, *126*(594), 1318–1341. <https://doi.org/10.1111/eoj.12292>
- Brambilla, M., Rusconi, P., Sacchi, S., & Cherubini, P. (2011). Looking for honesty: The primary role of morality (vs. sociability and competence) in information gathering. *European Journal of Social Psychology*, *41*(2), 135–143. <https://doi.org/10.1002/ejsp.744>
- Carpinella, C. M., Hehman, E., Freeman, J. B., & Johnson, K. L. (2016). The gendered face of partisan politics: Consequences of facial sex typicality for vote choice. *Political Communication*, *33*(1), 21–38. <https://doi.org/10.1080/10584609.2014.958260>
- Castelli, L., Carraro, L., Ghitti, C., & Pastore, M. (2009). The effects of perceived competence and sociability on electoral outcomes. *Journal of Experimental Social Psychology*, *45*(5), 1152–1155. <https://doi.org/10.1016/j.jesp.2009.06.018>
- Chen, F. F., Jing, Y., & Lee, J. M. (2012). “I” value competence but “we” value social competence: The moderating role of voters’ individualistic and collectivistic orientation in political elections. *Journal of Experimental Social Psychology*, *48*(6), 1350–1355.
<https://doi.org/10.1016/j.jesp.2012.07.006>
- Chen, F. F., Jing, Y., & Lee, J. M. (2014). The looks of a leader: Competent and trustworthy, but not dominant. *Journal of Experimental Social Psychology*, *51*, 27–33.
<https://doi.org/10.1016/j.jesp.2013.10.008>

- Chen, F. F., Jing, Y., Lee, J. M., & Bai, L. (2016). Culture matters: The looks of a leader are not all the same. *Social Psychological and Personality Science*, 7(6), 570–578.
<https://doi.org/10.1177/1948550616644962>
- Chiao, J. Y., Bowman, N. E., & Gill, H. (2008). The political gender gap: Gender bias in facial inferences that predict voting behavior. *PLoS ONE*, 3(10).
<https://doi.org/10.1371/journal.pone.0003666>
- Choi, H., & Varian, H. (2012). Predicting the present with Google Trends. *Economic Record*, 88, 2–9. <https://doi.org/10.1111/j.1475-4932.2012.00809.x>
- Cox, G. W., & Katz, J. N. (1996). Why did the incumbency advantage in U.S. House elections grow? *American Journal of Political Science*, 40(2), 478–497.
- Cunningham, M. R., Roberts, A. R., Barbee, A. P., & Druen, P. B. (1995). “Their ideas of beauty are, on the whole, the same as ours”: Consistency and variability in the cross-cultural perception of female physical attractiveness. *Journal of Personality and Social Psychology*, 68(2), 261–279.
- Del Monte, A., & Papagni, E. (2007). The determinants of corruption in Italy: Regional panel data analysis. *European Journal of Political Economy*, 23(2), 379–396.
<https://doi.org/10.1016/j.ejpoleco.2006.03.004>
- Epitropaki, O., & Martin, R. (2004). Implicit leadership theories in applied settings: Factor structure, generalizability, and stability over time. *Journal of Applied Psychology*, 89(2), 293–310. <https://doi.org/10.1037/0021-9010.89.2.293>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Ferguson, H. S., Owen, A., Hahn, A. C., Torrance, J., DeBruine, L. M., & Jones, B. C. (2019). Context-specific effects of facial dominance and trustworthiness on hypothetical leadership decisions. *PLoS ONE*, 14(7), e0214261. <https://doi.org/10.1371/journal.pone.0214261>
- Fiorino, N., Galli, E., & Petrarca, I. (2012). Corruption and growth: Evidence from Italian regions. *European Journal of Government and Economics*, 1(2), 126–144.
- Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106(1), 148–168.
<https://doi.org/10.1037/a0034726>

- Green, P., & Macleod, C. J. (2016). SIMR: an R package for power analysis of generalized linear mixed models by simulation. *Methods in Ecology and Evolution*, 7, 493–498.
<https://doi.org/10.1111/2041-210X.12504>
- Hehman, E., Carpinella, C. M., Johnson, K. L., Leitner, J. B., & Freeman, J. B. (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>
- Hehman, E., Leitner, J. B., Deegan, M. P., & Gaertner, S. L. (2015). Picking teams: When dominant facial structure is preferred. *Journal of Experimental Social Psychology*, 59, 61–65. <https://doi.org/10.1016/j.jesp.2015.03.007>
- Hehman, E., Xie, S. Y., Ofofu, E. K., & Nespoli, G. A. (2018). *Assessing the point at which averages are stable: A tool illustrated in the context of person perception*.
<https://psyarxiv.com/2n6jq/>
- Hollander, E. P., & Julian, J. W. (1969). Contemporary trends in the analysis of leadership processes. *Psychological Bulletin*, 71(5), 387–397.
- Jäckle, S., Metz, T., Wenzelburger, G., & König, P. D. (2019). A catwalk to congress? Appearance-based effects in the elections to the U.S. House of Representatives 2016. *American Politics Research*. <https://doi.org/10.1177/1532673X19875710>
- Jain, A. K. (2001). Corruption: A review. *Journal of Economic Surveys*, 15(1), 71–121.
<https://doi.org/10.1111/1467-6419.00133>
- King, A., & Leigh, A. (2009). Beautiful politicians. *Kyklos*, 62(4), 579–593.
[https://doi.org/10.1016/0014-2921\(83\)90040-5](https://doi.org/10.1016/0014-2921(83)90040-5)
- Klapper, A., Dotsch, R., van Rooij, I., & Wigboldus, D. H. J. (2016). Do we spontaneously form stable trustworthiness impressions from facial appearance? *Journal of Personality and Social Psychology*, 111(5), 655–664. <https://doi.org/10.1037/pspa0000062>
- Kuklinski, J. H., & Quirk, P. J. (2000). Reconsidering the rational public: Cognition, heuristics, and mass opinion. In A. Lupia, M. D. McCubbins, & S. L. Popkin (Eds.), *Elements of reason: Cognition, choice, and the bounds of rationality* (pp. 153–182). Cambridge University Press.

- Langlois, J. H., Kalakanis, L., Rubenstein, A. J., Larson, A., Hauam, M., Smoot, M., Bigler, R., Buss, D., Cohen, D., Feingold, A., Holden, G., Kalick, D., Miller, P., & Swann, W. B. (2000). Maxims or myths of beauty? A meta-analytic and theoretical review. *Psychological Bulletin*, *126*(3), 390–423. <https://doi.org/10.1037//0033-2909.126.3.390>
- Laustsen, L., & Petersen, M. B. (2015). Does a competent leader make a good friend? Conflict, ideology and the psychologies of friendship and followership. *Evolution and Human Behavior*, *36*(4), 286–293. <https://doi.org/10.1016/j.evolhumbehav.2015.01.001>
- Lenz, G. S., & Lawson, C. (2011). Looking the part: Television leads less informed citizens to vote based on candidates' appearance. *American Journal of Political Science*, *55*(3), 574–589. <https://doi.org/10.1111/j.1540-5907.2011.00511.x>
- Lin, C., Adolphs, R., & Alvarez, R. M. (2018). Inferring whether officials are corruptible from looking at their faces. *Psychological Science*, *29*(11), 1807–1823. <https://doi.org/10.1177/0956797618788882>
- Linhartova, V., & Pultarova, M. (2015). Cross-regional comparison of corruption. *4th International Conference on Economics, Political and Law Science*, 118–124. <http://www.wseas.us/e-library/conferences/2015/Rome/EPLS/EPLS-14.pdf>
- Little, A. C. (2014). Facial appearance and leader choice in different contexts: Evidence for task contingent selection based on implicit and learned face-behaviour/face-ability associations. *Leadership Quarterly*, *25*(5), 865–874. <https://doi.org/10.1016/j.leaqua.2014.04.002>
- Little, A. C., Burriss, R. P., Jones, B. C., & Roberts, S. C. (2007). Facial appearance affects voting decisions. *Evolution and Human Behavior*, *28*(1), 18–27. <https://doi.org/10.1016/j.evolhumbehav.2006.09.002>
- Little, A. C., Roberts, S. C., Jones, B. C., & DeBruine, L. M. (2012). The perception of attractiveness and trustworthiness in male faces affects hypothetical voting decisions differently in wartime and peacetime scenarios. *The Quarterly Journal of Experimental Psychology*, *65*(10), 2018–2032. <https://doi.org/10.1080/17470218.2012.677048>
- Mattes, K., & Milazzo, C. (2014). Pretty faces, marginal races: Predicting election outcomes using trait assessments of British parliamentary candidates. *Electoral Studies*, *34*, 177–189. <https://doi.org/10.1016/j.electstud.2013.11.004>
- Miller, A. H., Wattenberg, M. P., & Malanchuk, O. (1986). Schematic assessments of presidential candidates. *The American Political Science Review*, *80*(2), 521–540.

- Mosca, L. (2014). The Five Star Movement: Exception or vanguard in Europe? *The International Spectator*, 49(1), 36–52. <https://doi.org/10.1080/03932729.2013.875821>
- Olivola, C. Y., Eubanks, D. L., & Lovelace, J. B. (2014). The many (distinctive) faces of leadership: Inferring leadership domain from facial appearance. *The Leadership Quarterly*, 25(5), 817–834. <https://doi.org/10.1016/j.leaqua.2014.06.002>
- Olivola, C. Y., & Todorov, A. (2010a). Elected in 100 milliseconds: Appearance-based trait inferences and voting. *Journal of Nonverbal Behavior*, 34(2), 83–110. <https://doi.org/10.1007/s10919-009-0082-1>
- Olivola, C. Y., & Todorov, A. (2010b). Fooled by first impressions? Reexamining the diagnostic value of appearance-based inferences. *Journal of Experimental Social Psychology*, 46(2), 315–324. <https://doi.org/10.1016/j.jesp.2009.12.002>
- Penton-Voak, I. S., Pound, N., Little, A. C., & Perrett, D. I. (2006). Personality judgments from natural and composite facial images: More evidence for a “kernel of truth” in social perception. *Social Cognition*, 24(5), 607–640. <https://doi.org/10.1521/soco.2006.24.5.607>
- Peters, J. G., & Welch, S. (1980). The effects of charges of corruption on voting behavior in congressional elections. *The American Political Science Review*, 74(3), 697–708.
- Quattrone, G. A., & Tversky, A. (1988). Contrasting rational and psychological analyses of political choice. *American Political Science Review*, 82(3), 719–736.
- R Core Team. (2020). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. <https://www.r-project.org/>
- Re, D. E., & Rule, N. (2017). Distinctive facial cues predict leadership rank and selection. *Personality and Social Psychology Bulletin*, 43(9), 1311–1322. <https://doi.org/10.1177/0146167217712989>
- Rosar, U., Klein, M., & Beckers, T. (2008). The frog pond beauty contest: Physical attractiveness and electoral success of the constituency candidates at the North Rhine-Westphalia state election of 2005. *European Journal of Political Research*, 47(1), 64–79. <https://doi.org/10.1111/j.1475-6765.2007.00720.x>
- Rule, N. O., Ambady, N., Adams, R. B., Ozone, H., Nakashimi, S., Yoshikawa, S., & Watabe, M. (2010). Polling the face: Prediction and consensus across cultures. *Journal of Personality and Social Psychology*, 98(1), 1–15. <https://doi.org/10.1037/a0017673>

- Spisak, B. R., Dekker, P. H., Krüger, M., & Van Vugt, M. (2012). Warriors and peacekeepers: Testing a biosocial implicit leadership hypothesis of intergroup relations using masculine and feminine faces. *PLoS ONE*, 7(1), e30399. <https://doi.org/10.1371/journal.pone.0030399>
- Sussman, A. B., Petkova, K., & Todorov, A. (2013). Competence ratings in US predict presidential election outcomes in Bulgaria. *Journal of Experimental Social Psychology*, 49(4), 771–775. <https://doi.org/10.1016/j.jesp.2013.02.003>
- Todorov, A., Mandisodza, A. N., Goren, A., & Hall, C. C. (2005). Inferences of competence from faces predict election outcomes. *Science*, 308(5728), 1623–1626. <https://doi.org/10.1126/science.1110589>
- Todorov, A., & Porter, J. M. (2014). Misleading first impressions: Different for different facial images of the same person. *Psychological Science*, 25(7), 1404–1417. <https://doi.org/10.1177/0956797614532474>
- Welch, S., & Hibbing, J. R. (1997). The effects of charges of corruption on voting behavior in congressional elections. *The Journal of Politics*, 59(1), 226–239.
- Willis, J., & Todorov, A. (2006). First impressions: Making up your mind after a 100-ms exposure to a face. *Psychological Science*, 17(7), 592–598. <https://doi.org/10.1111/j.1467-9280.2006.01750.x>
- Yukl, G. (1989). Managerial leadership: A review of theory and research. *Journal of Management*, 15(2), 251–289.