LOOKING LIKE A WINNERCandidate Appearance and Electoral Success in New Democracies

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Abstract

A flurry of recent studies indicates that candidates who simply look more capable or attractive are more likely to win elections. In this article, the authors investigate whether voters' snap judgments of appearance travel across cultures and whether they influence elections in new democracies. They show unlabeled, black-and-white pictures of Mexican and Brazilian candidates' faces to subjects living in America and India, asking them which candidates would be better elected officials. Despite cultural, ethnic, and racial differences, Americans and Indians agree about which candidates are superficially appealing (correlations ranging from .70 to .87). Moreover, these superficial judgments appear to have a profound influence on Mexican and Brazilian voters, as the American and Indian judgments predict actual election returns with surprising accuracy. These effects, the results also suggest, may depend on the rules of the electoral game, with institutions exacerbating or mitigating the effects of appearance.

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1 Introduction

Institutions, ideology, and issues dominate research on voting behavior in comparative politics. According to conventional wisdom, vote choices are the result of the incentives provided by electoral rules, identities forged by parties as institutions, positions on the most controversial policies of the day, and evaluations of the incumbent performance on issues such as the economy. Several recent studies on voters in established democracies, however, suggest that politicians who "look the part" enjoy greater electoral success (Todorov et al. 2005, Ballew and Todorov 2007, Berggren, Jordahl, and Poutvaara 2010, Benjamin and Shapiro 2009, Banducci et al. 2008; Antonakis and Dalgas 2008). This conclusion is based on the surprising finding that snap judgments by research subjects about candidate appearance — that is, perceptions formed by only briefly looking at photographic images of candidates' faces — correlate quite strongly with candidates' actual performance in real-world elections. These findings are consistent with psychological research indicating that people often judge unfamiliar individuals based on their appearance, inferring personality traits such as competence, intelligence, honesty, and trustworthiness from facial features alone (Hassin and Trope 2000, Zebrowitz 1997, Zebrowitz et al. 2002). People rely more heavily on such impressionistic assessments when they know little else about individuals — that is, they use appearance as a low-information heuristic (Hassin and Trope 2000).

Given the challenge these findings represent to much of the conventional wisdom about voting behavior and democratic citizenship, they bear further investigation. For this paper, we had American and Indian research subjects rate the faces — based on brief exposure to unlabeled, black-and-white photographs — of Mexican and Brazilian candidates. We then present evidence that these cross-cultural appearance judgments predict actual Mexican and Brazilian election results with surprising accuracy. Our inquiry thus further establishes the

robustness of appearance effects by pushing the existing literature in three new ways. First and most innovative, we examine whether these appearance judgments transcend cultures. People of different ethnicities, races, and nations do agree, we find, about which candidates look best suited for office, and these shared evaluations about appearance influence voters. Second, we capture institutional variation by looking at candidates from different countries and offices.

Rather than entirely dismissing conventional wisdom in comparative politics, we bring classic political science variables to bear on this burgeoning psychological literature. In particular, we find that certain institutions privilege shallow image voting. Candidate appearance matters most when elections focus on individual candidates, instead of parties, and when the costs of acquiring information about candidates are high. In Mexico, for instance, the influence of appearance is more pronounced in gubernatorial and presidential contests, which are decided by plurality-winner rules, than in senate races, where the electoral system encourages party-line voting. Finally, our assessment of Brazil and Mexico extends the analysis to elections in new democracies.

The next section summarizes findings from the burgeoning literature on candidate appearance. The third section provides background on Brazil and Mexico, focusing on the way in which institutions might exacerbate or moderate the effect of candidate appearance. Sections 4 and 5 describe our data and show that American and Indian raters agree about which Mexican and Brazilian candidates "look the part." Section 6 presents our main results, and sections 7-9 provide tests of robustness, showing that the results hold when taking into account candidate race, candidate gender, candidate age, party strength, incumbency, and aspects of the photographs, such as image resolution. (Additional tests of robustness are provided in the

Supporting Materials.) The final section discusses the broader implications of our findings for democratic representation and mass behavior.

2 Image and electability

Over the last two decades, a handful of studies in the U.S. has documented how politicians' appearance can influence citizens' evaluations of them (Rosenberg et al. 1991, Rosenberg and McCafferty 1987, Rosenberg et al. 1986). For instance, physically attractive politicians seem to outperform their peers (Sigelman et al. 1986, Sigelman et al. 1987; see also Budesheim and Depaola 1994), as do good-looking people in other professions (Ambady and Rosenthal 1993, Hamermesh and Biddle 1994, Hamermesh 2006, Etkoff 2000, Harper 2000, Mobius and Rosenblat 2006, Holahan and Stephan 1981, Thornhill and Gangestad 1999).

Recent studies have linked candidate appearance to the burgeoning psychological literature on the automatic processing of images of human faces (Ambady and Rosenthal 1992, Ambady and Rosenthal 1993, Rule and Ambady 2008). This research indicates that people often draw inferences about others' character and abilities from their facial features, despite the fact that such inferences are of dubious accuracy (Mueller and Mazur 1996, Zebrowitz 1997, Ambady et al. 2000, Hassin and Trope 2000, Zebrowitz et al. 2002, Rule and Ambady 2008). Laboratory studies, in which subjects cast hypothetical ballots after seeing pictures of politicians' faces, suggest that voters employ this same heuristic when evaluating candidates (Johns and Shephard 2008, Keating et al. 1999, Todorov et al. 2005). These findings emerge when experimenters use actual photographs of candidates and when they consciously alter these images to accentuate certain facial features (Little et al. 2007, Keating et al. 1999).

¹We discuss the potential relationship between candidate appearance and true ability in greater detail in the Supporting Materials.

A related strand of research links candidate appearance to real-world voting returns. In one study, Benjamin and Shapiro (2009) exposed subjects to ten-second video clips of unfamiliar U.S. gubernatorial candidates from actual televised debates. Subjects' gut reactions about who would win were significant predictors of actual electoral outcomes, explaining approximately 20% of the variation in vote share across 58 contests.² Adding sound to the video clips tended to reduce subjects' ability to predict election results, indicating that subjects (and voters) react to the way candidates look rather than to what they say.

A series of studies conducted by Alexander Todorov and his collaborators (Todorov et al. 2005, Todorov and Ballew 2007) provides more systematic evidence along these lines. In their work, student subjects viewed pairs of black-and-white, head-and-shoulders photographs of U.S. House, Senate, and gubernatorial candidates for very short periods – as little as one-tenth of a second. After glimpsing each pair, subjects reported which candidate seemed more impressive or appealing on various dimensions: competence, intelligence, leadership, honesty, trustworthiness, charisma, and likeability. These unreflective inferences about the candidates correlated surprisingly well with actual election returns. For instance, average ratings of candidates' relative ability (measured by an index of competence, intelligence, and leadership) correctly predicted the outcome of more than 70% of senate races.³

A growing number of studies using the same general design indicate that similar dynamics may be at work in other countries. A recent study of Finnish politicians by Berggren et al. (2010) indicates that more comely contenders perform better in national legislative races.

These effects were small in an absolute sense; a one-unit increase on Berggren et al. (2010)'s

²Benjamin and Shapiro (2009) do not expressly claim that candidate appearance affects electability, only that impressionistic assessments can predict winners and losers.

³Ability was measured by a factor score that combined highly inter-correlated trait ratings: competence, intelligence, and leadership capacity.

five-point attractiveness scale was associated with a 1.8 to 3.2 percentage point increase in vote share for parliamentary candidates (depending on model specification, type of trait rated, and candidate gender). However, the impact of appearance was substantively impressive given that, in Finland's open-list proportional representation system, most winners garner only a small fraction of the vote. On average, very appealing-looking candidates would win twice as many votes as their very unappealing-looking rivals.

Even children's gut reactions to candidate faces seem to predict the outcome of elections. In a study of run-off elections for the French parliament, in which all the losers were incumbents, Antonakis and Dalgas (2009) presented gray-scaled, head-and-shoulders photographs of 57 pairs of candidates to Swiss youngsters aged five to thirteen, Swiss university students, and older Swiss adults. University students rated the candidates on relative competence, whereas children and older adults reported which candidate they would want to captain their boat on an epic voyage. Between 60% and 64% of respondents favored the winner of the actual election, and children proved more likely than adults to prefer winning candidates. Competence ratings among the university students also predicted candidates' share of the vote; moving from the minimum to the maximum relative competence rating would increase a candidate's support by 17 percentage points.

Several studies suggest that, much like people's behavior with new acquaintances, voters especially rely on candidates' appearance when they don't know much about the candidates. Two studies find particularly large appearance affects in low salience/information elections. In a little-known study of eleven local council candidates in the Australian town of Armilade, which anticipated much of the current research on appearance, Martin (1978) found that the gut reactions of subjects to black-and-white newspaper photographs of the candidates were powerful

predictors of those candidates' actual performance on Election Day. More recently, Banducci et al. (2008) found that appealing-looking candidates in non-partisan British community renovation board elections (in which candidates' photographs appeared on the ballot) enjoyed disproportionate success at the polls. In keeping with Martin's findings, these effects were dramatic. On average, candidates who scored highest on a six-item trait index – i.e., who were rated as most trustworthy, empathetic, competent, etc. by naïve coders – had close to a 90% chance of winning; those candidates who scored lowest had only a 10% chance of getting elected. This effect is several times larger than observed in other appearance studies, which examine higher salience races, such as U.S. Senate elections (e.g., Todorov et al. 2005). The trait assessments were themselves heavily influenced by candidates' physical attractiveness (as measured by the subjects), underscoring the shallow nature of impressionistic judgments. Consistent with these findings, appearance also seems to matter more among voters who are apathetic about politics (King and Leigh 2009) and ignorant about politics (Lenz and Lawson 2010).

While intriguing and compelling, in many ways these studies have only scratched the surface of candidate appearance effects. In this paper, we examine whether voters' judgments about politicians are cross-cultural. Research in psychology suggests that, in many cases, facial inferences about personality traits extend across cultural boundaries. People from different parts of the world tend to agree about the traits possessed by target faces (Albright, Malloy, Dong, Kenny, & Fang, 1997; McArthur & Berry, 1987; Zebrowitz et al., 1993). Chinese and Americans, for instance, ascribe the same personality traits to targets based on photographs of the face (Albright et al. 1997). To a degree, scholars have already shown a cross cultural element to the appearance-vote effect. Several studies find this effect using ratings from individuals in

other countries: Americans, French, and others rating Finnish candidates (Berggren et al. 2010), an American coder rating Australian candidates (King and Leigh 2009), and Swiss rating French candidates (Antonakis and Dalgas 2009). These studies, however, are limited to European countries, which may be politically and culturally more homogenous. Here, we extend these findings by showing that individuals living worlds apart, Americans and Indians, can predict elections in the new democracies of Mexico and Brazil.

Second, because the most prominent studies have been conducted by psychologists and economists, they ignore potentially moderating and confounding factors that would instinctively occur to political scientists. We examine whether electoral institutions promote or mitigate the effects of appearance. Candidate appearance should matter more when elections are candidate centered, not party centered, and when electoral institutions increase the costs of acquiring information about candidates, such as when there are numerous candidates among whom to choose. When the costs of acquiring information about candidates are high, citizens appear to fall back on faces as low-information heuristic. Moreover, previous researchers do not control for the strength of candidates' parties (an exception is Atkinson et al. 2009); none takes into account the effect of political institutions. By analyzing different types of contests and addressing additional alternative explanations more systematically, we aim to address these deficits in the literature.

Finally, all previous studies have occurred in established democracies, where voting patterns are more persistent and political identities are more fixed. We analyze appearance effects in new democracies where media-centered campaigns tend to meet newly formed political identities.

3 Cases: Mexico and Brazil

We focus on two large, new democracies where electoral behavior has been the subject of extensive research: Mexico and Brazil.⁴ In both countries, exposure to images of the candidates is common enough to permit appearance-based voting; as elections approach, Mexicans and Brazilians are inundated with pictures of the candidates on television, billboards, and posters. Brazilian voters can also see pictures of candidates on a screen when they vote (though only after they have called up that candidate).⁵ Electoral rules, however, vary substantially within and across the two countries in ways that might well affect the way voters process cues based on appearance.

In Mexico, first-past-the-post elections for executive office create candidate-centered contests, which are presumably a prerequisite for voting based on candidate appearance. Senate elections in Mexico, by contrast, operate according to a hybrid system: 32 senators are chosen based on their parties' share of the national vote, and three senators are selected from each of Mexico's 31 states plus the Federal District. In the statewide contests, parties present slates of two candidates each; both candidates from the party that finishes first go to Mexico City, as does the candidate at the top of the list from the party that finishes second. Thus, although it is possible for candidates to cultivate a personal vote (Cain et al. 1987, Carey and Shugart 1995), electoral rules encourage party-based voting much more than they do in races for president and

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⁴On Brazil, see Ames 1994, Ames 1995, Ames 2001, Ames et al. 2008a, Ames et al. 2008b, Flynn 1999, Samuels 1999, Samuels 2000a, Samuels 2000b, Samuels 2002, and Baker et al. 2006. On Mexico, see Domínguez and McCann 1995, Domínguez and McCann 1996, Domínguez and Poiré 1999, Hiskey and Canache 2005, Hiskey and Bowler 2005, McCann 1998, Klesner 1993, Klesner 1995, Klesner 1997, Klesner 2002, Lawson and Klesner 2001, Moreno 2003, Domínguez and Lawson 2003, Lawson and McCann 2005, Moreno and Mendez 2007, Paolino 2005, Magaloni 2006, Cleary 2007, Klesner 2007, Greene 2007, Greene 2008, and Domínguez et al. forthcoming.

⁵Elections in Brazil are conducted using electronic voting machines; voters use a keypad to type in a number of between two and five digits (depending on the office) that corresponds to a particular candidate, or a two-digit number if they wish to vote the party list. After entering a number, a picture of the candidate appears, and the voter either confirms or cancels her choice.

⁶Voters can see the names of their Senate candidates on the ballot, but they cannot alter the order in which they appear on the (two-person) party list, and the vote they cast counts for both the national and statewide tallies.

governor. If Mexicans cast their ballots based on the way candidates look, we should expect to see more appearance-based voting in the races for executive office than in the senate contests.

In Brazil, presidents and governors are chosen in majority-winner contests, forcing a second round of balloting between the two top vote-getters if the candidate with the largest share fails to obtain over 50% of the vote in the first round. As in Mexico, such a system allows for a personal vote. In the Chamber of Deputies, Brazil employs open-list proportional representation: citizens vote for one individual, meaning that they must choose among different candidates who share the same party brand. Not surprisingly, personal voting dominates in deputy races (Samuels 1999, Carey and Shugart 1995) even more than in the gubernatorial contests. 8

In Brazil, each state is an electoral district, making district magnitude extremely large – from eight deputies (Sergipe, the state whose deputy elections we investigate, and ten other states) to 70 (São Paulo). Brazil also has one of the highest effective number of parties (Laakso and Taagepera 1979) in the world, at 8.5 (Caramani 2008). In Sergipe, twenty-three different parties contested the election. Finally, each party can run more candidates in a district than there are seats. The sheer number of candidates – 48 in Sergipe – means that voters cannot realistically know much about the qualities of each one. To the extent that voters rely more on appearance where they know little about the candidates, we would expect the effects of appearance to be more pronounced in the deputy races than in gubernatorial contests.

Direct comparison of the role of appearance in Mexico and Brazil is potentially

⁷Constituents can vote a straight party ticket, but only a small minority of voters avail themselves of this option. In Sergipe, 91% voted for individual candidates.

⁸Our discussion of the incentives for personal voting differs from Carey and Shugart (1995)'s ordinal ranking of electoral systems, in that we focus exclusively on the cues voters receive when they cast ballots in a given contest whereas Carey and Shugart (1995) also address the relative power of party leaders and individual candidates have in determining who gets onto the ballot. That said, Carey and Shugart (1995)'s classification scheme would also score Mexican Senate contests as less candidate-centered than other Mexican gubernatorial or presidential contests and Brazilian gubernatorial contests as less candidate-centered than Brazilian deputy races.

⁹If the district magnitude is below 20 seats, then a party can run 2 candidates for each seat; however, if it is part of an alliance, each party can run 2.5 candidates per seat.

problematic, as a number of factors might affect how much voters base their decisions on candidate appearance. However, one salient difference between the two countries is the fact that consecutive reelection is not permitted for any office in Mexico. The fact that Mexican voters cannot judge candidates based on their performance in office might force them to rely more heavily than their Brazilian counterparts on candidate appearance when attempting to assess candidates' abilities.

4 Data and method

To assess the extent of appearance-based voting, we conducted a series of studies using a design similar to that of Todorov et al. (2005). In each study, we showed candidate images on computers to U.S. and Indian adult subjects, who we recruited online and paid a nominal fee. We chose to use U.S. and Indian raters in part because of convenience — they are easy to recruit online — but also because their politics, cultures, histories, ethnicities, and races differ from those of Mexico and Brazil. If U.S. and Indian raters can predict elections in Mexico and Brazil based only on seeing candidate pictures, then it suggests that, despite cultural differences, citizens in all four countries are responding to the same superficial features of candidates. As we discuss below, we also collected ratings from other sources using other methods and found the same results.

Before showing raters pictures, we cropped images so that only candidates' heads and shoulders were visible and their faces were the same size from top to bottom. We also gray-

¹⁰We recruited subjects through Amazon.com's Mechanical Turk service (www.mturk.com). This service allows researchers to recruit and pay subjects for participating in web-based studies. Although initially set up by Amazon.com to undertake tasks only humans could readily complete, such as recognizing products in pictures, it has expanded enormously and people now post jobs of numerous sorts, including surveys. Research suggests that people do these tasks for little pay because they are bored at their jobs. Most tasks pay between 5 and 50 cents. To collect the ratings, we use an online survey service called Survey Gizmo (www.sgizmo.com).

scaled images and stripped them of any identifying labels. Finally, we randomized the position of the winner (i.e., right or left side) and, for each rater, randomized the order of the candidates.

The Mexican study included 47 pairs of candidates from Mexico – 20 from the 2006 senate races, 17 from gubernatorial contests during 2004-06, and 10 from presidential primary or general election campaigns during 1988-2006. We collected ratings from 193 Americans and 50 Indians. In the case of gubernatorial and presidential races, we selected contests based on the availability of comparably high-quality photographs of the faces of the main contenders as they appeared around the time of the election. In the case of the senate races, we selected images from official government photographs of the main candidates, where these pictures were of similar clarity. Because political competition in most states is effectively two-party (Klesner 2002, Klesner 2005), pairings included only candidates from the two parties or electoral coalitions with the largest portion of the vote in the senate and gubernatorial contests. For the presidential contests, we drew the candidate pairs from all three major parties (though we still presented the candidates in pairs). The first three pairings in Figure 1 provide some examples.

In the Brazilian study of governors, we collected facial ratings from 89 U.S. and 50 Indian raters who saw 27 pairs of gubernatorial candidates from the 2006 elections. We chose pictures of the two contenders in the second round (N=10), or, in the case of victory in the first round (N=17), of the two candidates with the highest vote share. Although the number of parties in Brazil is large, gubernatorial elections often involve only two major candidates because parties form pre-electoral "alliances." All images were the official black-and-white photographs that

¹¹The sample of U.S. raters is larger because (1) the user base of Mechanical Turk is largely American and (2) we disqualified more Indians than American raters because of unusual behavior, such as marking "A" for the entire survey, marking that they recognized all the candidates, or failing to properly answer questions that test whether they understood the English instructions.

candidates submitted to the Brazilian electoral authority (TSE). ¹² We show one such pairing in the fourth row of Figure 1.

In the Brazilian deputy study, we presented images of candidates to 161 U.S. and 68 Indian participants. They evaluated 48 candidates for running for eight federal deputy seats from the state of Sergipe, selected because it had closest to the number of candidates that subjects could be expected to rate without becoming tired or distracted. Unlike the Mexican races and the Brazilian gubernatorial races, where citizens often choose between two main candidates or parties (although which two parties varies by state), Brazilian federal deputy races require citizens to choose among many candidates. We therefore switch from presenting pairs of candidates to raters to presenting candidates individually. As with the gubernatorial contests, all images shown were those submitted by the candidates to the Brazilian electoral authority. A sample image is provided at the bottom of Figure 1.

With the images in front of them, we ask participants in all three studies about the candidates' suitability for office. ¹³ Previous researchers have found candidate appearance effects regardless of whether they rate faces on competence (Todorov et al. 2005), attractiveness (Berggren et al. 2010), dominance (Rule and Ambady 2010), guess the outcome of the election (Benjamin and Shapiro 2009), cast votes in hypothetical contests (Todorov et al. 2005), or offer some other summary judgment of appearance. Given that research has not yet reached a consensus about what people are seeing in candidates' faces, whether they like competent looks, dominant looks, attractive looks, or something else, we simply ask for a summary judgment. In

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¹²Candidate pictures submitted must be 5 x 7 centimeters, in black and white (TSE 2006).

¹³Subjects could see the photographs for an unlimited time and had an unlimited time to respond, though most did so very quickly. Ballew and Todorov (2007) find subjects can predict elections equally well with 100 ms, 250 ms, and no time limit. Timestamps from the beginning and end of the survey indicate that raters spent about 10 (Americans) and 11 (Indians) seconds on average per pair of faces, which includes the time required to move on to and load the next set of images.

the Mexican study, which includes candidates for three offices, we ask "Which candidate would be a better elected official?" For the Brazilian gubernatorial candidates, we ask a more specific version of this question, "Which candidate would be a better governor?" In both cases, raters had to choose between Candidate A and Candidate B. Interestingly, the gubernatorial question yielded ratings by Indian subjects that, unlike in the other two studies (see below), did not agree with the U.S. raters. We subsequently learned that governorships in India are largely ceremonial positions usually given, by appointment, to politicians in the twilight of their careers. We therefore collected new ratings from new Indian subjects, changing the question to the one used for Mexican candidates: "Which candidate would be a better elected official?" These new Indian responses agreed with the U.S. raters despite the slightly different question (correlating at .76), and we present the results for the Indians with this more general question. To construct the Appearance advantage variable from these questions, we use the percent choosing Candidate A as the better governor or elected official.

In the Brazilian deputy study, we ask a slightly different question because, given the numerous candidates and seats, we present photographs individually instead of in pairs, asking subjects "How good of a Congressman do you think this person would be" on a five-point scale from "much worse than average" to "much better than average." We measure Appearance advantage as the average of the responses recoded to vary between 0 and 1.¹⁴

In collecting these evaluations of the candidates' faces, our goal is to assess the surface appeal of candidates' faces, an appeal that would generally manifest itself in pictures and video

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¹⁴In these studies, the only other question we ask participants about the candidate pictures is whether they recognized any of the candidates. If they did, we exclude them from the analysis. To ensure that the U.S. and Indian raters actually live in their respective countries, we checked their IP addresses and eliminated a handful of individuals with addresses located outside of their claimed countries. Besides originating from different cultures, the U.S. and Indian raters also differ demographically. U.S. raters are about 60% female, have an average age of about 35, and just over 60% have college degrees. In contrast, Indian raters are about 70% male, younger, with an average age of about 28, and highly educated, with more than 80% having college degrees.

of the candidates. If the pictures we use are unrepresentative, our ratings will of course contain measurement error. Assuming this measurement error is random, it will attenuate the coefficient for candidate appearance in bivariate analysis. In other words, noise likely leads us to *underestimate* the true effect of candidate appearance on electoral success.

For dependent variables, we use candidate vote share. In the Mexican races and Brazilian gubernatorial races, we calculate vote share as Candidate A's vote over the total vote for Candidate A and B. In the multiseat Brazilian deputy races, we used the vote share for each candidate. We also present chi-square tests and logit regressions on an indicator variable for winning.

5 American and Indians agree on which Mexican and Brazilian candidates "look the part"

Despite political, cultural, and other differences, Americans and Indians agree to a surprising extent about which Mexican and Brazilian candidates look most suitable for office. To show this, Table 1 presents the correlations between U.S. and Indian appearance ratings for all three sets of candidates. U.S. and Indian ratings correlate at .72 for Mexican candidates, .87 for Brazilian federal deputy candidates, and .76 for Brazilian gubernatorial candidates. These are strong relationships. As Table 1 also shows, these ratings correlate with vote share, a result we present in more detail below.

We also collected U.S. and Indian ratings of U.S. Senate candidates in 2006, asking raters to choose which candidate would be a better senator. Since researchers have amply documented appearance effects in U.S. Senate elections (Todorov et al. 2005; Ballew & Todorov, 2007; Atkinson et al. 2009), we do not present these results in detail. Consistent with this literature, however, we found that both the American and Indian ratings predicted the actual election results

for these races.¹⁵ If these facial judgments do appear to be cross-cultural, however, we should see Indians agreeing with Americans about which senate candidates look best. As we show in the bottom of Table 1, they do. The correlation between the two is .70.

We also collected additional appearance ratings to confirm these findings. Using students at two large U.S. universities to rate all the candidates, we also found strong correlations, typically about .80 or higher, between their ratings and those of adult U.S. and Indian raters (see Supporting Materials). We also had undergraduate students in Mexico rate the faces of the Mexican candidates (excluding the presidential candidates who would be recognizable). The students saw the candidate faces, not on computers, but with a projection system. The correlations between the ratings from Mexican students, American students, American adults, and Indian adults are strong (.76 between Mexican and American students, .80 between Mexicans and U.S. adults, .67 between Mexicans and Indians, see Table SM2 in the Supporting Materials for details). Although we primarily present the results for the adult U.S. and Indian ratings, the findings are the same when we use the student raters.

In sum, despite cultural and demographic differences between these raters in Mexico, India, and U.S., we find that they all appear to agree about which candidates look most appealing.

6 Predicting elections with cross-cultural appearance ratings

To evaluate the effects of candidate appearance, we concentrate first on the bivariate relationship between appearance ratings and candidates' electoral performance. For the Mexican study and the Brazilian gubernatorial study, we test whether candidates' relative face ratings

 $^{^{15}}$ In OLS regressions on vote share, the coefficient for appearance rating using the U.S. raters is .16 (p < .04) and using Indian raters is .22 (p < .01), and the average rating is .22 (p < .01).

predict their share of the total votes cast for Candidates A and B. For the Brazilian federal deputy candidates, we test the relationship between candidates' ratings (scaled to range from 0 to 1, so that the results can be more easily compared to the other races) and their share of the total votes cast in Sergipe. In the case of the Mexican candidates and the Brazilian gubernatorial candidates, we also test whether scoring higher on the face ratings (0 or 1) predicted electoral victory (0 or 1).

6.1 Appearance and vote share in Mexico

In Mexico, we find strong evidence for appearance-based voting. Simply knowing which candidate scored better on the appearance ratings allowed us to correctly predict the winner in 66% of the contests based on U.S. ratings and 62% based on Indian ratings. The average of the ratings from both samples predicts 68% of the races and is statistically significant in a chi-square test (p < .01). In OLS regressions on vote share, the coefficient for appearance rating using the U.S. raters is .16 (p < .04) and using Indian raters is .22 (p < .01), and using the average rating is .22 (p < .01). With this average, a 10 percentage point change in Candidate A's relative rating is associated with a 2.2 percentage point increase in his share of the vote; moving from the minimum to the maximum score on the average appearance rating would increase a candidate's vote share by 15 percentage points. These are strong relationships, large enough to alter the outcome of all but a handful of the races in our sample. Consistent with our expectations about the rules of the game, the effect of appearance is about four times as large for the executive races (.40, p < .004) as for the senate races (.10, p < .37). Figure 2 shows scatter plots for the U.S. and Indian raters. In each graph, the vertical axis indicates Candidate A's share of the two-party vote and the horizontal axis represents his or her appearance rating. In both figures, we observe a

¹⁶The difference between these coefficients is marginally significant (p < .08).

linear relationship between appearance and vote share, one that looks similar to those observed in U.S. elections. Like their American counterparts, Mexican voters thus also appear to be influenced by purely shallow cues.

6.2 Appearance and vote share in Brazil

For the Brazilian deputy races, the data again provide strong support for a relationship between appearance and electoral success. 17 In an OLS regression on vote share, the coefficient for appearance rating using American raters is .09 (p < .001), using Indian raters is .15 (p < .001), and using the average rating is .11 (p < .001). With the average rating, moving from the lowest to the highest face rating is associated with a six percentage point increase in vote share. In the context of federal deputy races, this effect is substantively large: the median candidate for federal deputy in Sergipe garnered less than 0.3% of all votes cast, and the average *winner* claimed less than 8%. Figure 3 presents scatter plots of these relationships, showing them separately for American and Indian raters.

In the Brazilian gubernatorial races, the evidence is similar to the Mexican contests. Candidates with higher ratings won 75% of the time based on U.S. ratings and 75% based on Indian ratings; these effects are highly significant in chi-square tests (p < .006 and p < .01, respectively). In an OLS regression on vote share, the appearance coefficient is .32 (p < .06) using the American raters, .28 (p < .07) using the Indian raters, and .35 (p < .05) using an average of the two ratings. These are very large effects. Figure 4 shows scatter plots of these relationships.

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 $^{^{17}}$ Chi-square tests on winning for deputies are more complicated because the appearance ratings are for each candidate, not for pairs. If we classify deputies as "looking the part" if their average facial ratings are above the midpoint on the five-point scale, we find that these candidates won 65% of the time based on U.S. ratings and 65% based on Indian ratings; these differences are significant in chi-square tests (p < .05 and p < .01, respectively).

7 Race, gender, and age

Visual images of candidates contain more information than their facial features. They also provide voters with information about candidates' background, such as race, gender, and age. In theory, subjects and voters could be reacting to these other aspects of appearance, rather than to their apparent competence or attractiveness (or whatever). Research in other countries, however, finds little evidence support for these as alternatives to the appearance effects findings (Todorov et al. 2005, Banducci et al. 2008, King and Leigh 2009, and Berggren et al. 2010). In fact, accounting for these aspects of appearance generally strengthens findings, not weakens them. To ensure that they also do not account for our findings, we add controls for race, gender, and age.

When conducting these analyses, we again found the same results for U.S. and Indian raters. For ease of presentation, we therefore only show the robustness checks below for the average of these ratings. In calculating this average, we give equal weight to the U.S. and Indian ratings (not more weight to U.S. participants because of their larger numbers).

One salient aspect of candidate appearance is race. American and Indian raters might rate lighter skinned candidates more highly, and Mexican and Brazilian voters might also prefer these candidates. If so, what we have interpreted as voting based on candidates' facial features could actually be a product of racial prejudices (see Terkildsen 1993, Mendelberg 2001, Valentino et al. 2002). Although subjects and voters would still be reacting to the way candidates look, the mechanism would be different from the one we postulate.

To this end, we rerun our analyses controlling for candidate race. Two independent coders, who were unaware of the nationality of the candidates, rated whether each candidate was white or nonwhite (cronbach alphas of .76 for Mexico, .84 for Brazilian gubernatorial, and .54

for Brazilian deputies candidates, see Supporting Materials for details). From each coder's ratings of the Brazilian gubernatorial candidates and the Mexican candidates, we created a variable that took a value of 1 if Candidate A was white and Candidate B was not, 0 if both candidates were white or non-white, and -1 if Candidate B was white Candidate A was not. (For Brazilian Deputies, this variable was simply 1 or 0 depending on whether the candidate was rated white or non-white.) As Table 2 indicates, whiter candidates do not perform much better in these elections and the effect of appearance attenuates only slightly and remains statistically significant when race is taken into account. Since Indians and Americans may have different conceptions of race, we also recruited additional Indian and American subjects to code which candidate had a lighter skin tone (see Supporting Materials for more details); controlling for this measure also left the results unchanged. In other words, the relationships we identify are apparently not the product of racial stereotypes or biases, a result consistent with findings on appearance in U.S. elections.

Another trait readily discernible in the photographs is candidate gender. The likely effects of gender, however, are the opposite from those of race. Although female candidates generally underperform their male counterparts in actual elections, they fare better in snap judgments – a product of male subjects rating unknown male and female candidates about the same, whereas female subjects tending to favor female candidates (see, *inter alia*, Johns and Shepherd 2007, Berggren et al. 2010, Sanbonmatsu 2002, Fox and Oxley 2003, Leeper 1991).

These general relationships are borne out in our data. Female candidates generally do worse than their male counterparts at the polls (though the effect of gender is not always statistically significant). As would be expected given the relationships between vote share, candidate gender, and candidate ratings, taking candidate gender into account tends to increase

the coefficient for appearance. In the Brazilian gubernatorial races, for example, the effect of appearance remains strongly significant when gender is included in the model (p < .02) and increases slightly in magnitude over the bivariate findings.

A third trait visible in photographs is age. Voters might associate youth with inexperience (or vigor); to the extent that subjects shared these stereotypes, we could be misinterpreting the relationship between impressionistic ratings and electoral performance. Moreover, if these stereotypes contained an element of truth, voters might not be reacting to the way candidates looked at all but rather to what they did – for instance, if elderly candidates were unable to keep up a rigorous campaign schedule or if younger candidates behaved more recklessly. In that case, what we have assumed to be voting based on candidate appearance might actually be the product of reasonable decision-making by the electorate.

In the United States, the effect of age on electoral success is curvilinear; both very old and very young candidates tend to fare worse than those in middle age (Loomis 1984, Lehman 1947, Hain 1974, Oleszek 1969). On the assumption that similar dynamics are at work in Mexico and Brazil, we classified each candidate according to whether they appeared to fall inside or outside the normal age range for the office in question (cronbach alphas of .67 for Mexico, .57 for Brazilian gubernatorial, and .57 for Brazilian deputies, see Supporting Materials for details). These assessments were then combined for the Mexican races and Brazilian gubernatorial contests to create a variable measuring the extent to which Candidate A was disadvantage relative to Candidate B in terms of age.

Among Mexican candidates, taking age into account did not materially alter the effect of appearance, perhaps because there were few cases of candidates who differed markedly in age.

With Brazilian candidates, being too old or too young has a negative effect on electoral

performance. Controlling for age, however, does not diminish the effect of Appearance advantage; in fact, it slightly enhances it.

All told, then, the effects of appearance are not solely a product of factors like race, age, and gender. If anything, taking these into account strengthen our findings (see also Todorov et al. 2005, Banducci et al. 2008, King and Leigh 2009, and Berggren et al. 2010).

8 Appearance, party strength, and incumbency

In both countries, especially Mexico, past levels of partisan support in a state or locality strongly predict how well candidates fare (Klesner 2004, Klesner 2002, Domínguez and McCann 1995, Domínguez and Lawson 2003, Domínguez et al. 2007, Samuels 2000a). Since stronger parties may attract better looking candidates or afford professional image management for their candidates (e.g., photographers, hair stylists, makeup artists), controlling for party strength is important.

In Mexico, we measure party strength using the party-list vote for the lower house of Congress in the most recent election before the contest in question. For presidential elections, we use the national party vote; for gubernatorial and senate contests, we use the party vote in that state. In all cases, we calculate party strength as vote share of the party of Candidate A over the total vote share of the party of Candidate A and B. In an OLS regression, the coefficient for party strength is large and highly significant: .35 (p < .001). As Table 3 also shows, however, appearance remains a powerful predictor of electoral performance when party strength is taken into account: .15 (p < .05).

As we would expect, the effect of appearance remains much more pronounced for the executive races than for the legislative races when partisanship is taken into account. For

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¹⁸For the 2005 presidential primary contest for the National Action Party (PAN), party strength for Candidate A was fixed at 50%. Dropping this pairing does not change the results.

instance, the coefficient for appearance in the executive races is .30 (p < .01); for the senate races, it is small and not statistically significant, .08 (p < .39). 19

To control for party strength in Brazilian deputy elections, we follow the coding procedures from the Mexican study, using the overall percentage of the national vote each party obtained in the 2006 elections for the Chamber of Deputies. ²⁰ As expected, party strength seems to matter; for every 10 percentage points that a candidate's party earns in national elections, that candidate's vote share rises 1.3 percentage points. Nevertheless, the effect of appearance remains large and highly significant when that fact is taken into account. (These results are shown in the middle of Table 3.)

To control for party strength in the Brazilian governors' races, we have to use a different measure of party strength than in the other races. Since parties generally form alliances for each gubernatorial race, alliance vote share is much more predictive of candidate vote than is party vote share. Parties allying with other parties are free to change their alliance partners from state to state; this happens often and for strategic and regional reasons that are beyond the scope of this paper. Expanding the scope to the alliance-level, not the party level, gives us the best way to model institutional influence on gubernatorial election results. We thus calculate party strength as Candidate A's alliance vote share in the statewide elections for federal deputy (as a share of the total vote for Candidate A's and B's alliances). Unlike in the deputy contests, however, including party substantially reduces the effect of appearance. We return to this point below.

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¹⁹The difference between these coefficients is marginally significant (p < .14).

²⁰We use results from the same year because using older election results would not reflect the significant changes in Brazil's party system, especially the growth of the PT since 2002.

²¹Because of a 2002 law, parties running against each other on the presidential ticket may not join in an alliance at any lower tier of the ballot.

Another factor likely to affect Brazilian candidates' success is incumbency. (Mexican legislators cannot be consecutively reelected, and Mexican executives cannot be reelected ever.) The relationship between incumbency and appearance is a difficult one to parse; if appearance does indeed affect vote share, incumbency will be partly endogenous to appearance, and including it in the equation will lead us to underestimate the total effect of looking the part. At the same time, incumbency could provide an alternative explanation. Appearance could seem to matter because incumbents tend to win elections (the incumbency advantage) and can afford professional image management.

To address this latter possibility, we control for incumbency. In the deputy races, we code variable 1 if the candidate is an incumbent and 0 otherwise. ²² As Table 3 makes clear, incumbency has a substantial effect on electoral performance in deputy races; however, including it in the analysis actually increases the appearance effect, which remains large and significant.

In Brazilian gubernatorial races, half of the contests (13 out of 27) featured an incumbent, who was *invariably* reelected. To take incumbency into account, we create a new variable coded 1 if Candidate A is the incumbent, -1 if Candidate B is the incumbent, and 0 for open-seat races.²³ Given the strength of gubernatorial incumbents, appearance may only matter in open-seat contests. To this end, we split the sample into the 14 open-seat races and the 13 contests in which an incumbent was running. In the case of the former, we control for the partisan distribution of the vote; in the latter set, we control for both party strength and incumbency. (See

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²²Our coding was gathered from comparing the 2006 and 2002 election lists from Brazil's Superior Electoral Court. Out of the forty-eight deputy candidates in Sergipe, five were incumbents from 2002; of those, three retained their seats.

²³In addition to current office-holders, we also code as an incumbent Cid Gomes, brother of incumbent governor Ciro Gomes and inheritor of the latter's political machine. Treating Gomes as a challenger reduces the correlation between electoral performance and incumbency.

the last two columns at the bottom of Table 3.) In the open-seat races, the effect of appearance is similar to that for the Mexican executive races; despite the small number of observations, this effect is significant. By contrast, the effect essentially disappears in contests featuring an incumbent. This finding is consistent with the notion that voters rely more heavily on the way candidates look when they know less about them.

9 Additional robustness tests: undergraduate raters, image quality, facial hair, smiling

To further assess the strength of these findings, Table 4 summarizes the results and presents additional robustness tests. As noted above, we also collected facial ratings from students at two large undergraduate institutions, and, despite asking them to rate traits in some cases, such as competence and trustworthiness for Mexican candidates, the average of all the student ratings correlates highly with the ratings by U.S. and Indian adult subjects. (The Supporting Materials present these correlations.) The first rows of Table 4 show that, in bivariate regressions, the student ratings also predict vote share in the Mexican and Brazilian races. In fact, the similarity in the coefficients is striking.

Next, Table 4 shows that the appearance findings hold up among each set of raters when we add all the control variables, including three additional ones. The first is relative image resolution of the photographs, which we had two individuals code as 1 if Candidate A's photo was higher than Candidate B's, 0 if they were the same, and -1 if Candidate B' was higher (cronbach alphas of .67 for Mexican candidates and .70 Brazilian gubernatorial candidates). Because we rate Brazilian deputy candidates singly and did not resize the standardized images submitted to the Electoral Authority, we do not control for image quality in these contests. Second, we control for the presence of facial hair. Giving the lack of ambiguity about facial hair, we had one coder measure it as 1 if Candidate A has and Candidate B has no facial hair, 0 if

neither or both has facial hair, and -1 if Candidate B has and Candidate A has none. Third, we control for smiling, which we measured with a similar coding to facial hair but with two coders (cronbach alpha of .82). For Brazilian deputies, we simply include dummy variables for facial hair or smiling. When candidate vote share is regressed on appearance ratings, the other control variables, and each of these three variables, the coefficients on appearance remain the same or improve, sometimes greatly. To further account for image resolution, we tried controlling for the difference in the number of kilobytes in the pictures, which also left the results unchanged. For a detailed discussion of these and other variables we coded from the pictures, none of which change the results, see Supporting Materials.

Finally, we show the results from bivariate logit models on the outcome of winning. For each set of ratings, we regress an indicator for winning elections, coded 1 win, 0 loose, on Appearance advantage using logit. Consistent with the chi-square results reported above, we find large and statistically significant effects, meaning that Appearance advantage, not only predicts vote share, but also who wins these elections.²⁴

10 Discussion

In an age of widespread access to visual media, scholars have frequently expressed concern that attention to candidate "image" could cheapen or distort the process of representation.²⁵ We find that appearance is indeed a powerful arbiter of politicians' success: even in races for high office, Mexican and Brazilian voters seem to judge contenders at least in part on their surface appeal. These effects emerge most clearly for Brazilian deputy candidates and Mexican executive candidates. Moreover, these effects are not small: in some types of races

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²⁴We do not include control variables in these logit models because of perfect prediction problems (which arise from the limited number of races and the large number of categorical control variables).

²⁵ See Rosenberg et al. 1986; Rosenberg et al. 1991.

appearance exercises almost as much influence over candidates' electoral prospects as does the strength of the party whose standard they carry. We also find that judgments about appearance appear surprisingly universal. Despite cultural, ethnic, and racial differences, Americans and Indians agree about which candidates are superficially appealing, and their judgments are about equally predictive of actual election results in Mexico and Brazil.

At the same time we find suggestive evidence that electoral rules condition the degree to which voters rely on the way candidates look when casting their ballots. Appearance matters more in systems where electoral rules encourage personal voting and where voters lack ready access to cues about the caliber of the candidates (such as incumbency). Appearance-based voting is thus widespread, but it also appears to be contingent on political context. Indeed, the fact that incumbency can trump appearance suggests that citizens with accumulated knowledge about and experience with a given candidate are less likely to rely on appearance when casting their votes.

Besides the institutions we identify, the degree to which voters rely on appearance may be a product of numerous other factors, in particular, the sorts of visual cues they receive—from the mass media, from posters hung near polling stations, or from photographs on the ballots themselves. Voters may also rely less on candidate appearance where they are inundated with information about the main contenders (as in U.S. presidential elections). Finally, there may be cases in which ethnic, partisan, or clientelist ties effectively make voters immune to other influences, including the way candidates look. Investigating the degree to which these factors lead voters to rely less on the way candidates look remains a promising research agenda for students of electoral behavior. At this point we can merely suggest two key political institutions that seem to be conditioning factors: electoral systems and term limits.

Do these findings cast major doubts on the fundamental nature of democracy and quality of democratic citizenship? Are democratic elections mere beauty pageants?²⁶ Our findings are potentially troubling, though not necessarily alarming, about the basis upon which leadership rests in democratic political systems. First, while there are surely "better" criteria than appearance upon which to base one's vote—politicians' actual abilities, record in office, party affiliation, or policy positions—there are also worse ones, such as a candidate's race, ethnicity, placement on the ballot, or even false information about her or him. Along these lines, candidate appearance may primarily influence less informed voters whose criteria for selecting among candidates are already of dubious value.²⁷ Second, although we have ruled out numerous alternative explanations, we remain concerned about others, such as harder working candidates winning more votes and, incidentally, spending more money on their pictures. Finally, if democratic elections are mere beauty pageants, our findings have implications for a cure: adopting institutions that enhance the availability of information to voters may mitigate the influence of appearance.

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²⁶ Ames, Baker, and Renno 2008.

²⁷ See King and Leigh 2009.

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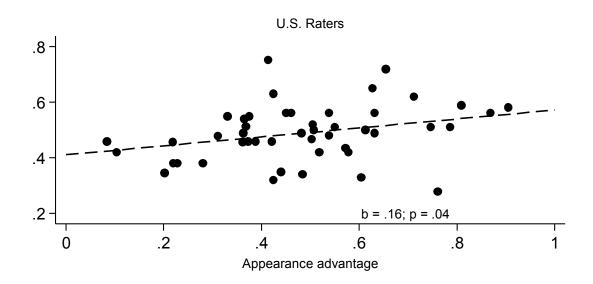
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Note: The first pairing shows Mexican presidential candidates from the Institutional Revolutionary Party (PRI) and the National Action Party (PAN) in 2006; the next shows senate candidates in the state of Nayarit from the Party of the Democratic Revolution (PRD) and the PRI in 2006; the third shows PRI and PAN candidates in the state of Campeche's 2003 gubernatorial race. The first two pairings were included in both studies; the last pairing was employed only in the second. The fourth pairing shows Brazilian candidates for governor from the Liberal Front Party (PFL) and the Workers' Party (PT) in the state of Sergipe. The last image shows the sole candidate for federal deputy from the Progressive Party (PP) in Sergipe.

Figure 2: Candidate appearance and vote share in Mexico



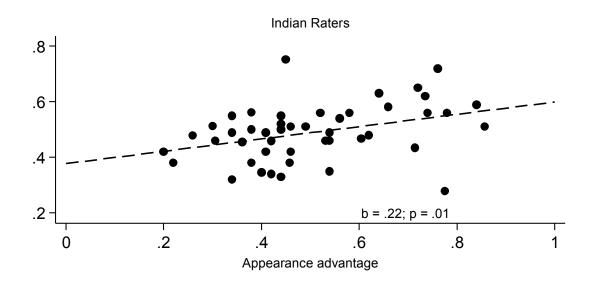
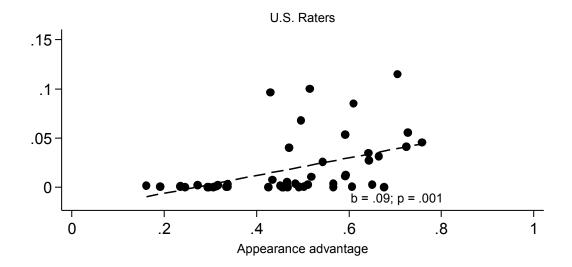


Figure 3: Appearance and vote share for Brazilian candidates for federal deputy



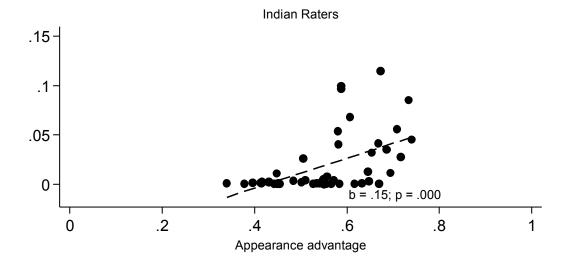
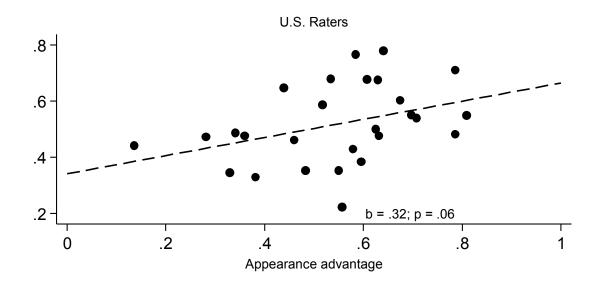


Figure 4: Appearance and vote share for Brazilian gubernatorial candidates



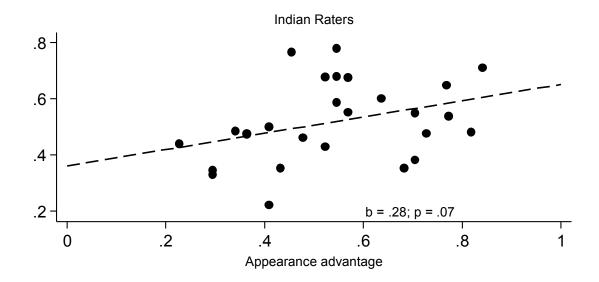


Table 1: American and Indians agree on which Mexican and Brazilian candidates look "politically" attractive, correlations between Appearance advantage ratings

Mexican candidates	Ratings by Indian subjects	Vote share
Ratings by Indian subjects		0.37
Ratings by U.S. subjects	0.72	0.31
Brazilian federal deputy candidates Ratings by Indian subjects Ratings by U.S. subjects	0.87	0.52 0.46
raings by bis. subjects	0.07	0.10
Brazilian gubernatorial candidates		
Ratings by Indian subjects		0.35
Ratings by U.S. subjects	0.76	0.37
U.S. Senate candidates, 2006		
Ratings by Indian subjects		0.39
Ratings by U.S. subjects	0.70	0.45

Table 2: Appearance effects on vote share controlling for of race, gender, and age

			,	· · · · · · · · · · · · · · · · · · ·		
	Mexican races					
Appearance advantage	.21**	.22**	.22**	.21**		
	(.09)	(.09)	(.08)	(.10)		
Whiteness	.02			.02		
	(.03)			(.03)		
Gender (Female)		.01	.00			
		(.04)		(.04)		
Age advantage		08		.09		
			(.06)	(.06)		
N	47	47	47	47		
Adjusted R ²	.09	.09	.14	.11		
	Brazilian federal deputy races					
Appearance advantage	.10***	.10***	.12***	.10***		
	(.03)	(.03)	(.03)	(.03)		
Whiteness	.01			.01		
	(.01)			(.01)		
Gender (Female)		01		01		
		(.01)		(.01)		
Age advantage			02***			
			(.01)	(.01)		
N	48	48	48	48		
Adjusted R^2	.24	.23	.31	.33		
	Brazilian gubernatorial races					
Appearance advantage	.37**	.41**	.43**	.46**		
	(.17)	(.16)	(.18)	(.18)		
Whiteness	03			02		
	(.04)			(.04)		
Gender (Female)			09*06			
		(.05)		(.06)		
Age advantage			07	04		
			(.06)	(.06)		
N	27	27	27 27			
Adjusted R^2	.10	.18	.13 .13			

Adjusted R^2 .10 .18 .13 .13

Note: OLS coefficients with standard error in parentheses. Appearance advantage is an unweighted average of the American and Indian ratings. We average these ratings for ease of presentation; the results are the same for just the American ratings and just the Indian ratings. Models include a constant term that is not shown. *** p<0.01, * p<0.05, * p<0.1

Table 3: Appearance effects on vote share controlling for party and incumbency

		Mexican races					
	All races	Executive races	Senate races				
Appearance	.15**	.30**	.08				
advantage	(.07)	(.10)	(.10)				
Party vote	.35***	.39***	.34**				
J	(.08)	(.11)	(.14)				
N	47	27	20				
Adjusted R^2	.34	.49	.21				
		Brazilian federal deputy races					
Appearance	.10***	.11***	.08***				
advantage	(.03)	(.03)	(.03)				
Party vote	.13*	(.03)	.10				
Turty vote	(.07)		(.07)				
Incumbency		.04***	.03***				
		(.01)	(.01)				
N	48	48	48				
Adjusted R^2	.27	.36	.36				
		Brazilian gubernatorial races					
			Open-seat				
	All races	All races	races	incumbents			
Appearance	.19	.14	.43**	.00			
advantage	(.15)	(.16)	(.20)	(.25)			
Alliance vote	.46***		.32	.25			
	(.15)		(.20)	(.33)			
Incumbency		.11***	n/a	.08			
		(.04)		(.06)			
N	27	27	14	13			
Adjusted R ²	.34	.33	.27	.52			

Adjusted R^2 34 33 .27 .52

Note: OLS coefficients with standard error in parentheses. Appearance advantage is an unweighted average of the American and Indian ratings. We average these ratings for ease of presentation; the results are the same for just the American ratings and just the Indian ratings. Models include a constant term that is not shown. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Summary of appearance effect findings and additional robustness tests

•	14 .		D:1:		
-	Mexican races		Brazilian races		Gov.
Bivariate (OLS on vote share)	All	Sen.	Dep.	Gov.	Open seat
Ratings from U.S. subjects (online)	.16**	.07	.09***	.32*	.45**
Ratings from 0.5. subjects (offinic)	(.07)	(.10)	(.03)	(.16)	(.21)
Ratings from Indian subjects (online)	.22**	.10	.15***	.29*	.26
Ratings from matan subjects (offine)	(.08)	(.11)	(.04)	(.15)	(.20)
U.S. student ratings (projection based)	.21***	.14	.09***	.22	.34*
o.s. student latings (projection bused)	(.07)	(.09)	(.03)	(.14)	(.19)
Average of ratings from U.S. and Indian subjects (online)	.22**	.10	.11***	.35**	.38*
Tivorage of facings from 0.5. and main subjects (offine)	(.08)	(.11)	(.03)	(.17)	(.22)
Mexican student ratings (projection based, excludes pres. races)	.13**	.07	(.03)	(.17)	(.22)
Mexican statem ratings (projection based, excitaces pres. races)	(.05)	(.06)			
	(.03)	(.00)			
With all control variables (OLS on vote share)					
(whiteness, gender, age, party strength, incumbency, image quality, facial hair, smiling)					
Ratings from U.S. subjects (online)	.17	.03	.08***	.18	.44**
3 ()	(.10)	(.15)	(.03)	(.22)	(.15)
Ratings from Indian subjects (online)	.30***	.16	.13***	.18	.25
	(.10)	(.11)	(.04)	(.17)	(.16)
Average of ratings from U.S. and Indian subjects (online)	.28**	.12	.09***	.24	.34*
	(.11)	(.14)	(.03)	(.21)	(.16)
Student ratings (projection based)	.17*	.05	.08**	.14	.28
	(.09)	(.18)	(.03)	(.17)	(.27)
Bivariate on winning (logit on 0/1 DV)	C O de de de	2.6	0.0444	0 644	10.04
Ratings from U.S. subjects (online)	6.0***	3.6	8.3**	9.6**	10.9*
	(2.2)	(2.5)	(3.6)	(4.1)	(6.2)
Ratings from Indian subjects (online)	5.2**	3.1	13.3**	5.1*	4.4
	(2.1)	(2.7)	(5.4)	(2.7)	(3.9)
Average of ratings from U.S. and Indian subjects (online)	6.8***	4.0	10.4**	8.3**	7.9
	(2.5)	(2.9)	(4.4)	(3.8)	(5.3)
Student ratings (projection based)	5.4***	5.5	8.0**	4.4*	3.6
	(2.1)	(3.4)	(3.5)	(2.5)	(3.8)
Mexican student ratings (projection based, excludes pres. races)	3.5**	.95			
	(1.7)	(2.2)			

Note: Standard error in parentheses. *** p<0.01, ** p<0.05, * p<0.1