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LOOKING LIKE A WINNER

Candidate Appearance and Electoral Success in New Democracies

By CHAPPELL LAWSON, GABRIEL S. LENZ,
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I. INTRODUCTION

INSTITUTIONS, ideology, and issues dominate research on voting behavior in comparative politics. The conventional wisdom holds that vote choices are the result of the incentives provided by electoral rules, the identities forged by parties, the positions on the most controversial policies of the day, and the evaluations of incumbent performance on issues such as the economy. Several recent studies on voters in established democracies suggest, however, that politicians who “look the part” enjoy greater electoral success.¹ This conclusion is based on the surprising finding that snap judgments by research subjects about candidate appearance—that is, perceptions formed by looking only briefly at images of candidates’ faces—correlate 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.² People rely more heavily on such impressionistic assessments when they know little else about individuals, using appearance as a low-information heuristic.³

Given the challenge these findings pose for much of the conventional wisdom about voting behavior and democratic citizenship, they bear further investigation. For this article, we had American and Indian research subjects rate the faces—based on brief exposure to unlabeled,

*We thank Joe Kannegaard, Alex Todorov, and Adam Ziegfield, as well as seminar participants at MIT and Yale.

¹Todorov et al. 2005; Ballew and Todorov 2007; Benjamin and Shapiro 2009; Banducci et al. 2008; Antonakis and Dalgas 2009; Berggren, Jordahl, and Poutvaara 2010.

²Zebrowitz 1997; Hassin and Trope 2000; Zebrowitz et al. 2002.

³Hassin and Trope 2000.

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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 further examines appearance effects by pushing the existing literature in three new ways. First, we examine whether these appearance judgments transcend cultures. People of different ethnicities, races, and nations agree, we find, about which candidates look best suited for office, and these shared evaluations about appearance seem to 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 may privilege shallow image voting. Candidate appearance matters most when elections focus on individual candidates, instead of on 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 of appearance effects to elections in new democracies.

The next section summarizes findings from the burgeoning literature on candidate appearance. Section III provides background on Brazil and Mexico, focusing on the way in which institutions might exacerbate or moderate the effect of candidate appearance. Sections IV and V describe our data and show that American and Indian raters agree about which Mexican and Brazilian candidates “look the part.” Section VI presents our main results, and sections VII–IX 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 online supporting materials.)⁴ The final section discusses the broader implications of our findings for democratic representation and mass behavior.

II. 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

⁴ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

of them.⁵ For instance, physically attractive politicians seem to outperform their peers,⁶ as do good-looking people in other professions.⁷

Recent studies have linked candidate appearance to the burgeoning psychological literature on the automatic processing of images of human faces.⁸ This research indicates that people often draw inferences about the character and abilities of others from their facial features, despite the fact that such inferences are of dubious accuracy.⁹ Laboratory studies, in which subjects cast hypothetical ballots after seeing pictures of politicians' faces, suggest that voters employ this same heuristic when evaluating candidates.¹⁰ These findings emerge when experimenters use actual photographs of candidates and when they consciously alter these images to accentuate certain facial features.¹¹

Not only do people cast hypothetical votes in the lab based on candidate appearance, but they also appear to do so in real-world elections. A series of studies conducted by Alexander Todorov and his collaborators document this finding in U.S. elections.¹² 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 percent of the Senate races.¹³

In a related study, Benjamin and Shapiro exposed subjects to ten-second video clips of unfamiliar U.S. gubernatorial candidates from

⁵ Rosenberg et al. 1986; Rosenberg and McCafferty 1987; Rosenberg et al. 1991.

⁶ Sigelman et al. 1986; Sigelman, Sigelman, and Fowler 1987; see also Budesheim and Depaola 1994.

⁷ Holahan and Stephan 1981; Ambady and Rosenthal 1993; Hamermesh and Biddle 1994; Thornhill and Gangestad 1999; Etkoff 2000; Harper 2000; Hamermesh 2006; Mobius and Rosenblat 2006.

⁸ Ambady and Rosenthal 1992; Ambady and Rosenthal 1993; Rule and Ambady 2008.

⁹ Mueller and Mazur 1996; Zebrowitz 1997; Ambady, Bernieri, and Richeson 2000; Hassin and Trope 2000; Zebrowitz et al. 2002; Rule and Ambady 2008. We discuss the potential relationship between candidate appearance and true ability in greater detail in the online supporting materials, at http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

¹⁰ Keating, Randall, and Kendrick 1999; Todorov et al. 2005; Johns and Shephard 2008.

¹¹ Little et al. 2007; Keating, Randall, and Kendrick 1999.

¹² Todorov et al. 2005; Todorov and Ballew 2007.

¹³ Ability was measured by a factor score that combined highly intercorrelated trait ratings: competence, intelligence, and leadership capacity.

actual televised debates.¹⁴ Subjects' gut reactions about who would win were correct 58 percent of the time across the fifty-eight contests they examined.¹⁵ Much like Todorov and his collaborators, Benjamin and Shapiro also found a strong linear relationship between these reactions to the images and vote share. 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 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, Jordahl, and Poutvaara indicates that more comely contenders perform better in national legislative races.¹⁶ These effects were small in an absolute sense; a one-unit increase on Berggren, Jordahl, and Poutvaara's 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, Antonakis and Dalgas presented gray-scaled, head-and-shoulders photographs of fifty-seven pairs of candidates to Swiss youngsters aged five to thirteen, Swiss university students, and older Swiss adults.¹⁷ 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 percent and 64 percent of respondents favored the winner of the actual election, and children proved more likely than adults to prefer winning candidates. Competence ratings by 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 rely on candidates' appearance especially when

¹⁴ Benjamin and Shapiro 2009.

¹⁵ Benjamin and Shapiro do not expressly claim that candidate appearance affects electability, only that impressionistic assessments can predict winners and losers.

¹⁶ Berggren, Jordahl, and Poutvaara 2010.

¹⁷ Antonakis and Dalgas 2009.

they know relatively little about them. Two studies find particularly large appearance effects in low-salience/low-information elections. In a little-known study of eleven local council candidates in the Australian town of Armidale, which anticipated much of the current research on appearance, Martin 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.¹⁸ Examining another low-salience election, Banducci et al. found that appealing-looking candidates in nonpartisan British community renovation board elections (in which candidates' photographs appeared on the ballot) enjoyed disproportionate success at the polls.¹⁹ In keeping with Martin's findings, these effects were dramatic. On average, candidates who scored highest on a six-item trait index—that is, who were rated as most trustworthy, empathetic, competent, and so on by naïve coders—had close to a 90 percent chance of winning; those candidates who scored lowest had only a 10 percent chance of getting elected. This effect is several times larger than observed in most other appearance studies, which examine higher salience races, such as U.S. Senate elections.²⁰ 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 politics²¹ and ignorant about politics.²²

While intriguing and compelling, these studies have only scratched the surface of candidate appearance effects. In this article 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.²³ Chinese and Americans, for instance, ascribe the same personality traits to individuals based on photographs of their faces.²⁴ 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,²⁵ an American coder rating Australian

¹⁸ Martin 1978.

¹⁹ Banducci et al. 2008.

²⁰ For example, Todorov et al. 2005.

²¹ King and Leigh 2009.

²² Lenz and Lawson 2010.

²³ Albright et al. 1997.

²⁴ Albright et al. 1997.

²⁵ Berggren, Jordahl, and Poutvaara 2010.

candidates,²⁶ and Swiss rating French candidates.²⁷ These studies are mostly limited, however, 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. Our results support those recently published by Rule et al., who had Americans rate Japanese candidates' faces and Japanese rate American candidates' faces.²⁸

Besides assessing the universality of appearance judgments, we also investigate the role of institutions. Because psychologists and economists have conducted many of the studies in this literature, they sometimes 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. Looks 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 contenders for a given office. When the costs of acquiring information about candidates are high, citizens appear to fall back on faces as a low-information heuristic. Moreover, previous researchers do not control for the strength of candidates' parties;²⁹ 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 been conducted 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.

III. CASES: MEXICO AND BRAZIL

We focus on two large new democracies where electoral behavior has been the subject of extensive research: Mexico and Brazil.³⁰ In both

²⁶ King and Leigh 2009.

²⁷ Antonakis and Dalgas 2009.

²⁸ Rule et al. 2010.

²⁹ An exception is Atkinson, Enos, and Hill 2009.

³⁰ On Brazil, see Ames 1995; Ames 2001; Ames, Baker, and Renno 2008; Ames, Baker, and Renno 2009; Flynn 1999; Samuels 1999; Samuels 2000a, Samuels 2000b, Samuels 2002; and Baker, Ames, and Renno 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;

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).³¹ Electoral rules, however, vary substantially within and across the two countries in ways that might well affect how 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: thirty-two senators are chosen based on their parties' share of the national vote, and three senators are selected from each of Mexico's thirty-one states plus the Federal District. Parties in the statewide contests 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.³² Thus, although it is possible for candidates to cultivate a personal vote,³³ electoral rules encourage party-based voting much more than they do in races for president and 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 percent 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

Klesner 1993; Klesner 1995; Klesner 1997; Klesner 2002; Lawson and Klesner 2001; McCann and Lawson 2003; Domínguez and Lawson 2003; Klesner 2005; Lawson and McCann 2005; Moreno and Mendez 2007; Paolino 2005; Magaloni 2006; Cleary 2007; Greene 2007; Greene 2008; and Domínguez, Lawson, and Moreno Forthcoming.

³¹ Elections 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.

³² Voters 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.

³³ Cain, Ferejohn, and Fiorina 1987; Carey and Shugart 1995.

the same party brand.³⁴ Not surprisingly, personal voting dominates in deputy races³⁵ even more than in the gubernatorial contests.³⁶

In Brazil each state is an electoral district, making district magnitude extremely large—from eight deputies (Sergipe, the state whose deputy elections we investigate) to seventy (São Paulo). Brazil also has one of the highest effective number of parties in the world, at 8.5.³⁷ In Sergipe twenty-three different parties contested the 2006 legislative election that we analyze. Finally, each party can run more candidates in a district than there are seats.³⁸ The sheer number of candidates—forty-eight in Sergipe—means that voters cannot realistically know much about the qualities of each one. To the extent that voters rely more on appearance when 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 problematic, as a number of factors might affect the extent to which voters base their decisions on candidate appearance. However, one salient difference between the two countries is that consecutive reelection is not permitted for any office in Mexico. Given that Mexican voters cannot judge candidates based on their performance in office, they may be forced to rely more than their Brazilian counterparts on candidate appearance when attempting to assess candidates' abilities.

IV. 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.³⁹ In each study we showed candidate images on computers to U.S. and Indian adult subjects, whom we recruited online and paid a nominal fee.⁴⁰ We

³⁴ Constituents can vote a straight party ticket, but only a small minority of voters avail themselves of this option. In Sergipe 91 percent voted for individual candidates.

³⁵ Carey and Shugart 1995; Samuels 1999.

³⁶ Our discussion of the incentives for personal voting differs from Carey and Shugart's (1995) 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's (1995) 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.

³⁷ Carey and Shugart 1995; Samuels 1999.

³⁸ If 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.

³⁹ Todorov et al. 2005.

⁴⁰ We 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

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.

We cropped the images of pictures shown to the raters so that only candidates' heads and shoulders were visible and their faces were the same size from top to bottom.⁴¹ We also gray-scaled images and stripped them of any identifying labels. Finally, we randomized the position of the winner (that is, right or left side) and, for each rater, randomized the order in which candidates were presented.

The Mexican study included forty-seven pairs of candidates from Mexico—twenty from the 2006 senate races, seventeen from gubernatorial contests during 2004–6, and ten from presidential primary or general election campaigns during 1988–2006. We collected ratings from 193 Americans and 50 Indians.⁴² For 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 a two-party affair,⁴³ 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

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 five and fifty cents. To collect the ratings, we use an online survey service called Survey Gizmo (www.sgzimo.com).

⁴¹ Since we present Brazilian deputy candidates singly, instead of in pairs, differences in face size were less noticeable and so we do not resize the images.

⁴² The 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.

⁴³ Klesner 2002; Klesner 2005.



FIGURE 1
SAMPLE IMAGES OF MEXICAN AND BRAZILIAN CANDIDATES^a

^aBeginning with the top, the pictures show Mexican presidential candidates from the Institutional Revolutionary Party (PRI) and the National Action Party (PAN) in 2006; senate candidates in the state of Nayarit from the Party of the Democratic Revolution (PRD) and the PRI in 2006; PRI and PAN candidates in the state of Campeche's 2003 gubernatorial race; Brazilian candidates for governor from the Liberal Front Party (PFL) and the Workers' Party (PT) in the state of Sergipe; and the sole candidate for federal deputy from the Progressive Party (PP) in Sergipe.

from eighty-nine U.S. and fifty Indian raters who saw twenty-seven 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 preelectoral “alliances.” All images were the official black-and-white photographs that candidates submitted to the Brazilian electoral authority (TSE).⁴⁴ 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 forty-eight candidates running for eight federal deputy seats from the state of Sergipe, selected because it had about 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 switched 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 asked participants in all three studies about the candidates’ suitability for office.⁴⁵ Previous researchers have found candidate appearance effects regardless of whether they rate faces on competence,⁴⁶ attractiveness,⁴⁷ dominance,⁴⁸ guess the outcome of the election,⁴⁹ cast votes in hypothetical contests,⁵⁰ or offer some 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 asked for a summary judgment.

⁴⁴ Brazil’s Tribunal Superior Eleitoral requires candidates to submit 5 x 7 centimeter pictures in black and white.

⁴⁵ Subjects 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.

⁴⁶ Todorov et al. 2005.

⁴⁷ Berggren, Jordahl, and Poutvaara 2010.

⁴⁸ Rule et al. 2010.

⁴⁹ Benjamin and Shapiro 2009.

⁵⁰ Todorov et al. 2005.

In the Mexican study, which includes candidates for three offices, we asked, "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. 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 percentage choosing Candidate A as the better governor or elected official.

In the Brazilian deputy study we asked a slightly different question because, given the numerous candidates and seats, we presented 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 1.⁵¹

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 videos of the candidates. If the pictures we used 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.

⁵¹ In these studies the only other question we ask participants about the candidate pictures is whether they recognized any of the candidates. Anyone who did was excluded 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 percent female, have an average age of about thirty-five, and just over 60 percent have college degrees. In contrast, Indian raters are about 70 percent male, younger, with an average age of about twenty-eight, and highly educated, with more than 80 percent having college degrees. Given the demographics of the Indian sample, their ratings are of course not necessarily representative of Indians more generally.

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 Candidates A and B. In the multiseat Brazilian deputy races we use the vote share for each candidate. In addition to vote share, we also present chi-square tests and logit regressions on whether scoring higher on the face ratings (0 or 1) predicts electoral victory (0 or 1).

V. AMERICANS 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 as well, a result we present in more detail below.

To further assess the cross-cultural nature of appearance judgments, we collected several additional sets of candidate face ratings. We had U.S. and Indian subjects rate 2006 U.S. Senate candidates, asking raters to choose which candidate would be a better senator. If these facial judgments are cross-cultural, we should see Indians agreeing with Americans about which Senate candidates look best. As we show in Table 1, they do; the correlation between the two is .70. Both the American and Indian ratings predicted the actual election results in these races.⁵² Since researchers have amply documented appearance effects in U.S. Senate elections, we do not present these results in detail.⁵³

As an additional check, we had students at two large U.S. universities rate all the candidates and again found strong correlations, typically about .80 or higher, between their ratings and those of adult U.S. and Indian raters (see the online supporting materials).⁵⁴ We also had undergraduate students in Mexico rate the faces of the Mexican candidates (excluding the presidential candidates, who would be recog-

⁵² 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 ($p < .01$).

⁵³ Todorov et al. 2005; Ballew and Todorov 2007; Atkinson, Enos, and Hill 2009.

⁵⁴ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

TABLE 1
 AMERICANS AND INDIANS AGREE ON WHICH MEXICAN AND BRAZILIAN
 CANDIDATES LOOK "POLITICALLY" ATTRACTIVE, CORRELATIONS BETWEEN
 APPEARANCE ADVANTAGE RATINGS

	<i>Ratings by Indian Subjects</i>	<i>Vote Share</i>
Mexican Candidates		
ratings by Indian subjects		0.37
ratings by U.S. subjects	0.72	0.31
Brazilian Federal Deputy Candidates		
ratings by Indian subjects		0.52
ratings by U.S. subjects	0.87	0.46
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

nizable). 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 online supporting materials for details).⁵⁵ 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 raters in Mexico, India, and the U.S., we find that they all appear to agree about which candidates look most appealing.

VI. 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 guber-

⁵⁵ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

natorial study we test whether candidates' relative face ratings predict their share of the total votes cast for Candidates A and B. For the Brazilian federal deputy races 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).

APPEARANCE AND VOTE SHARE IN MEXICO

In Mexico we find evidence for appearance-based voting. Simply knowing which candidate scored better on the appearance ratings allowed us to correctly predict the winner in 66 percent of the contests based on U.S. ratings and 62 percent based on Indian ratings. The average of the ratings from both samples predicts 68 percent of the races and is statistically significant in a chi-square test ($p < .01$). In OLS regressions on vote share the coefficient for appearance using the U.S. raters is .16 ($p < .04$), 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, $p < .37$).⁵⁶ 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 linear relationship between appearance and vote share, one that looks similar to those observed in U.S. elections. Thus, like their American counterparts, Mexican voters also appear to be influenced by purely shallow cues.

APPEARANCE AND VOTE SHARE IN BRAZIL

For the Brazilian deputy races the data again provide support for a relationship between appearance and electoral success.⁵⁷ In an OLS regression

⁵⁶ The difference between these coefficients is marginally significant ($p < .08$).

⁵⁷ Chi-square tests on winning for deputies are more complicated because they are multicandidate and so the appearance ratings are for each candidate, not for pairs. If we classify deputies as "looking

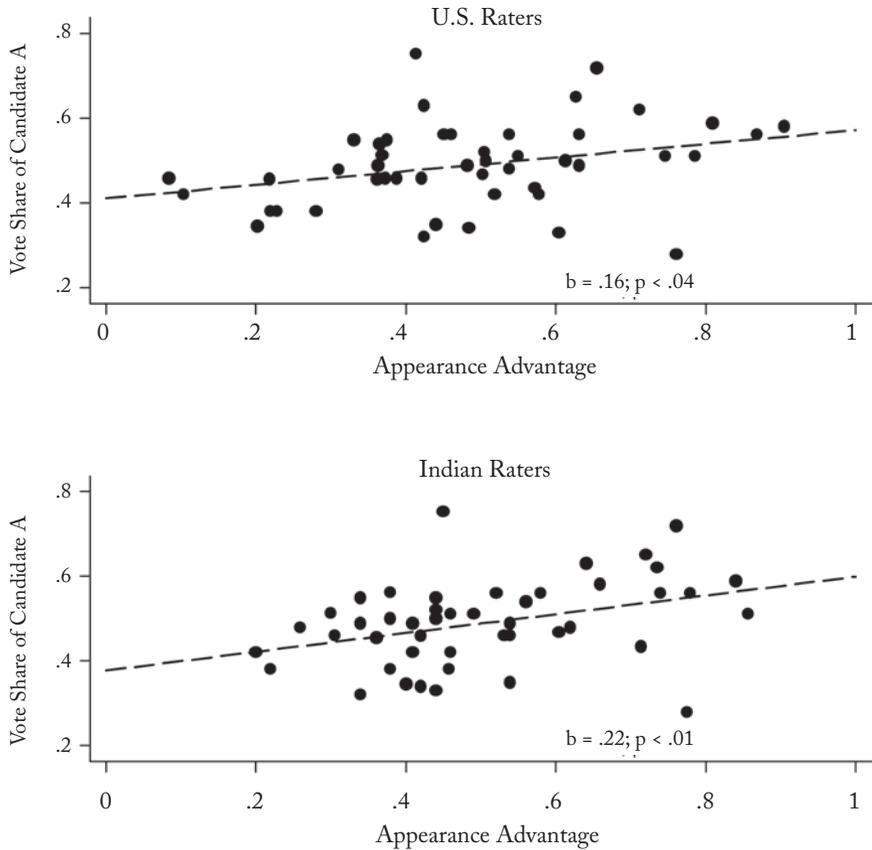


FIGURE 2
CANDIDATE APPEARANCE AND VOTE SHARE IN MEXICO

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 6 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 percent of all votes cast, and the average *winner* claimed less than 8 percent. Figure 3 presents scatter plots of

the part" if their average facial ratings are above the midpoint on the five-point scale, we find that these candidates won 65 percent of the time based on U.S. ratings and 65 percent based on Indian ratings; these differences are significant in chi-square tests ($p < .05$ and $p < .01$, respectively).

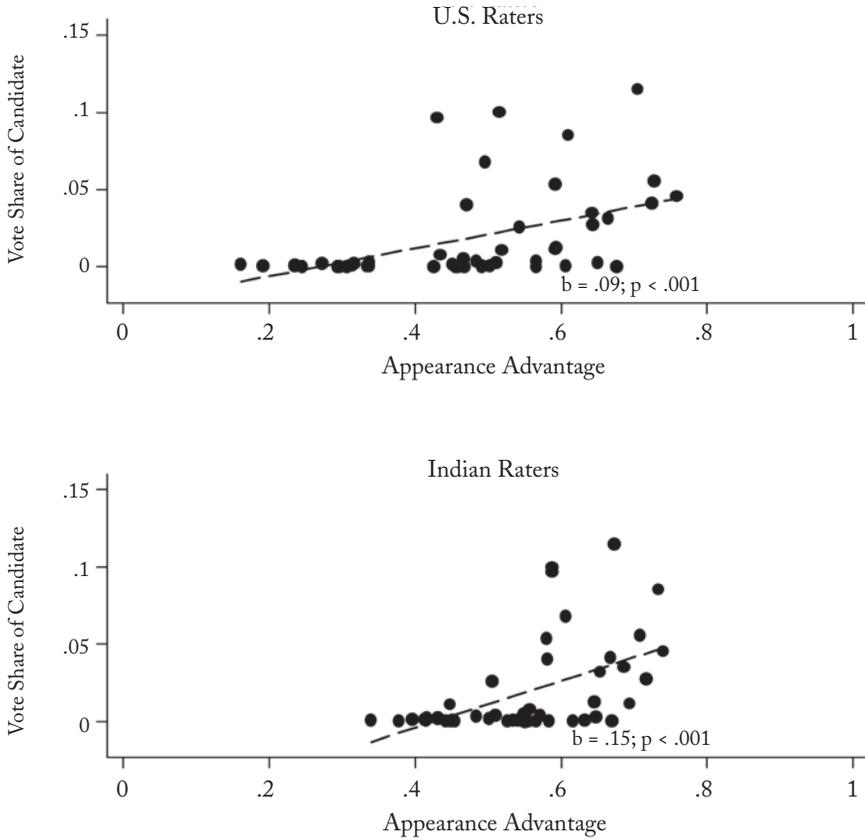


FIGURE 3
 APPEARANCE AND VOTE SHARE FOR BRAZILIAN CANDIDATES FOR
 FEDERAL DEPUTY

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 percent of the time based on U.S. ratings and 75 percent of the time 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. Figure 4 shows scatter plots of these relationships.

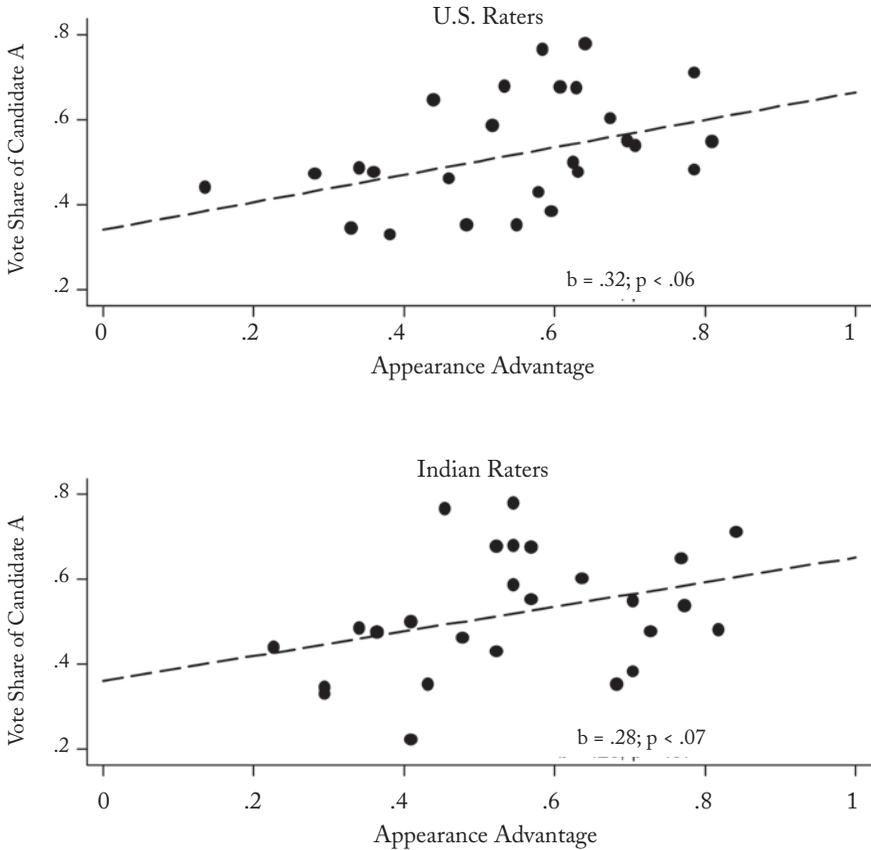


FIGURE 4
 APPEARANCE AND VOTE SHARE FOR BRAZILIAN GUBERNATORIAL CANDIDATES

All told, we find a consistent bivariate relationship between appearance and vote. Not only do Americans and Indians agree about which Mexican and Brazilian candidates look best, but their superficial judgments also predict actual election results in these faraway countries.

VII. 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 support for these explanations as alternatives to the appearance effects findings.⁵⁸ In fact, accounting for these aspects of appearance generally strengthens findings, rather than 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 find the same results for U.S. and Indian raters. For ease of presentation, we therefore show these robustness checks below for only the average of these ratings. In calculating this average, we give equal weight to the U.S. and Indian ratings (that is, we do not give more weight to U.S. participants simply because there were more of them).

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.⁵⁹ 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 online supporting materials for details).⁶⁰ From each coder's ratings, 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 nonwhite, and -1 if Candidate B was white and Candidate A was not. (For Brazilian deputies, this variable was simply 1 or 0 depending on whether the candidate was rated white or nonwhite.) 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 online supporting materials for more details);⁶¹ controlling for these measures also left the results unchanged. In other words, the relationships we

⁵⁸ Todorov et al. 2005; Banducci et al. 2008; King and Leigh 2009; and Berggren, Jordahl, and Poutvaara 2010.

⁵⁹ See Terkildsen 1993; Mendelberg 2001; Valentino, Hutchings, and White 2002.

⁶⁰ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

⁶¹ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

TABLE 2
 APPEARANCE EFFECTS ON VOTE SHARE CONTROLLING FOR RACE,
 GENDER, AND AGE^a

<i>Mexican Races</i>				
Appearance advantage	.21** (.09)	.22** (.09)	.22** (.08)	.21** (.10)
Whiteness	.02 (.03)	—	—	.02 (.03)
Gender (female)	—	.01 (.04)	—	.00 (.04)
Age advantage	—	—	.08 (.06)	.09 (.06)
N	47	47	47	47
Adjusted R ²	.09	.09	.14	.11
<i>Brazilian Federal Deputy Races</i>				
Appearance advantage	.10*** (.03)	.10*** (.03)	.12*** (.03)	.10*** (.03)
Whiteness	.01 (.01)	—	—	.01 (.01)
Gender (female)	—	-.01 (.01)	—	-.01 (.01)
Age advantage	—	—	-.02*** (.01)	-.02** (.01)
N	48	48	48	48
Adjusted R ²	.24	.23	.31	.33
<i>Brazilian Gubernatorial Races</i>				
Appearance advantage	.37** (.17)	.41** (.16)	.43** (.18)	.46** (.18)
Whiteness	-.03 (.04)	—	—	-.02 (.04)
Gender (female)	—	-.09* (.05)	—	-.06 (.06)
Age advantage	—	—	-.07 (.06)	-.04 (.06)
N	27	27	27	27
Adjusted R ²	.10	.18	.13	.13

*** p<0.01, ** p<0.05, * p<0.1

^aOLS 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.

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. Although female candidates generally underperform their male counterparts in actual elections, they fare better in snap judgments—a product of the fact that male subjects tend to rate unknown male and female candidates about the same, whereas female subjects tend to favor female candidates.⁶²

These general relationships are borne out in our data. Female candidates do worse than their male counterparts at the polls (though the effect of gender is not always statistically significant), but they do better in the ratings. 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 so much as to what they did—for instance, younger candidates behaving more recklessly (or elderly candidates being unable to keep a rigorous campaign schedule). 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.⁶³ On the assumption that similar dynamics are at work in Mexico and Brazil, we classified each candidate according to whether he or she 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 online supporting materials for details).⁶⁴ These assessments were then combined for the Mexican races and the Brazilian gubernatorial contests

⁶² See, *inter alia*, Leeper 1991; Sanbonmatsu 2002; Fox and Oxley 2003; Johns and Shepherd 2007; Berggren, Jordahl, and Poutvaara 2010.

⁶³ Lehman 1947; Oleszek 1969; Hain 1974; Loomis 1984.

⁶⁴ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

to create a variable measuring the extent to which Candidate A was disadvantaged 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 strengthens our findings.⁶⁵

VIII. 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.⁶⁶ Since stronger parties may attract better looking candidates or be better able to afford professional image management for their candidates (for example, 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.⁶⁷ 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 executive races than for legislative races when partisanship is taken into account. For 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 ($p < .39$).⁶⁸

⁶⁵ See also Todorov et al. 2005; Banducci et al. 2008; King and Leigh 2009; and Berggren, Jordahl, and Poutvaara 2010.

⁶⁶ Domínguez and McCann 1995; Samuels 2000a; Klesner 2002; Domínguez and Lawson 2003; Klesner 2005.

⁶⁷ For the 2005 presidential primary contest for the National Action Party (PAN), party strength for Candidate A was fixed at 50 percent. Dropping this pairing does not change the results.

⁶⁸ The difference between these coefficients is marginally significant ($p < .14$).

TABLE 3
 APPEARANCE EFFECTS ON VOTE SHARE CONTROLLING FOR PARTY
 AND INCUMBENCY^a

<i>Mexican Races</i>				
	<i>All Races</i>	<i>Executive Races</i>	<i>Senate Races</i>	
Appearance advantage	.15** (.07)	.30** (.10)	.08 (.10)	
Party vote	.35*** (.08)	.39*** (.11)	.34** (.14)	
N	47	27	20	
Adjusted R ²	.34	.49	.21	
<i>Brazilian Federal Deputy Races</i>				
Appearance advantage	.10*** (.03)	.11*** (.03)	.08*** (.03)	
Party vote	.13* (.07)	—	.10 (.07)	
Incumbency	—	.04*** (.01)	.03*** (.01)	
N	48	48	48	
Adjusted R ²	.27	.36	.36	
<i>Brazilian Gubernatorial Races</i>				
	<i>All Races</i>	<i>All Races</i>	<i>Open-Seat Races</i>	<i>Races with Incumbents</i>
Appearance advantage	.19 (.15)	.14 (.16)	.43** (.20)	.00 (.25)
Alliance vote	.46*** (.15)	—	.32 (.20)	.25 (.33)
Incumbency	—	.11*** (.04)	n/a	.08 (.06)
N	27	27	14	13
Adjusted R ²	.34	.33	.27	.52

*** p<0.01, ** p<0.05, * p<0.1

^aOLS 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.

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.⁶⁹ 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 use a different measure of party strength than in the other races. Because 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 article.⁷⁰ Using alliance-level vote shares provides 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 Candidate B's alliances). Unlike in deputy contests, including party substantially reduces the effect of appearance. (We return to this point below when discussing incumbency.)

Another factor likely to affect Brazilian candidates' success is incumbency. The relationship between incumbency and appearance is a difficult one to parse; if appearance does indeed affect vote share, incumbency will be 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 this variable as 1 if the candidate is an incumbent and 0 otherwise.⁷¹ As Table 3 makes clear, incumbency has a substan-

⁶⁹ We 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.

⁷⁰ Because 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.

⁷¹ Our 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.

tial effect on electoral performance in deputy races; however, including it in the analysis leaves the appearance effect unchanged.

In Brazilian gubernatorial races, half of the contests (thirteen out of twenty-seven) 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.⁷² Given the strength of gubernatorial incumbents, appearance may matter only in open-seat contests. To this end, we split the sample into the fourteen open-seat races and the thirteen 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 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.

IX. ADDITIONAL ROBUSTNESS TESTS: UNDERGRADUATE RATERS, IMAGE QUALITY, FACIAL HAIR, AND FACIAL EXPRESSIONS

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 U.S. 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 online supporting materials present these correlations.)⁷³ The first rows of Table 4 show that the student ratings in bivariate regressions predict vote share in the Mexican and Brazilian races as well as the American and Indian ratings do. 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

⁷² In addition to current officeholders, 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.

⁷³ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

TABLE 4
SUMMARY OF APPEARANCE EFFECT FINDINGS AND ADDITIONAL
ROBUSTNESS TESTS

<i>Bivariate (OLS on Vote Share)</i>	<i>Mexican Races</i>		<i>Brazilian Races</i>		
	<i>All</i>	<i>Sen.</i>	<i>Dep.</i>	<i>Gov.</i>	<i>Gov. Open Seat</i>
Ratings from U.S. subjects (online)	.16** (.07)	.07 (.10)	.09*** (.03)	.32* (.16)	.45** (.21)
Ratings from Indian subjects (online)	.22** (.08)	.10 (.11)	.15*** (.04)	.29* (.15)	.26 (.20)
U.S. student ratings (projection based)	.21*** (.07)	.14 (.09)	.09*** (.03)	.22 (.14)	.34* (.19)
Average of ratings from U.S. and Indian subjects (online)	.22** (.08)	.10 (.11)	.11*** (.03)	.35** (.17)	.38* (.22)
Mexican student ratings (projection based, excludes pres. races)	.13** (.05)	.07 (.06)			
<i>With All Control Variables (OLS on Vote Share)^a</i>					
Ratings from U.S. subjects (online)	.17 (.10)	.03 (.15)	.08*** (.03)	.18 (.22)	.44** (.15)
Ratings from Indian subjects (online)	.30*** (.10)	.16 (.11)	.13*** (.04)	.18 (.17)	.25 (.16)
Average of ratings from U.S. and Indian subjects (online)	.28** (.11)	.12 (.14)	.09*** (.03)	.24 (.21)	.34* (.16)
Student ratings (projection based)	.17* (.09)	.05 (.18)	.08** (.03)	.14 (.17)	.28 (.27)
<i>Bivariate on Winning (logit on 0/1 DV)</i>					
Ratings from U.S. subjects (online)	6.0*** (2.2)	3.6 (2.5)	8.3** (3.6)	9.6** (4.1)	10.9* (6.2)
Ratings from Indian subjects (online)	5.2** (2.1)	3.1 (2.7)	13.3** (5.4)	5.1* (2.7)	4.4 (3.9)
Average of ratings from U.S. and Indian subjects (online)	6.8*** (2.5)	4.0 (2.9)	10.4** (4.4)	8.3** (3.8)	7.9 (5.3)
Student ratings (projection based)	5.4*** (2.1)	5.5 (3.4)	8.0** (3.5)	4.4* (2.5)	3.6 (3.8)
Mexican student ratings (projection based, excludes pres. races)	3.5** (1.7)	.95 (2.2)			

*** p<0.01, ** p<0.05, * p<0.1; standard error in parentheses

^aWhiteness, gender, age, party strength, incumbency, image quality, facial hair, smiling.

than Candidate B's, 0 if they were the same, and -1 if Candidate B's was higher (Cronbach alphas of .67 for Mexican candidates and .70 for 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. Given the lack of ambiguity about facial hair, we had one coder measure it as 1 if Candidate A has facial hair and Candidate B has no facial hair, 0 if neither or both sport facial hair, and -1 if Candidate B has a beard or mustache 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 these three new variables, the coefficients on appearance remain essentially the same. To further account for image resolution, we also controlled 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 control variables we coded from the pictures, none of which change the results, see the online supporting materials.⁷⁴

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 lose—on Appearance advantage using logit. Consistent with the chi-square results reported above, we find large and statistically significant effects, meaning that Appearance advantage predicts not only vote share but also who wins these elections.⁷⁵

X. 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.⁷⁶ 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 appearance exercises al-

⁷⁴ http://web.mit.edu/polisci/research/glenz/WP_faces_SM.pdf.

⁷⁵ We do not include control variables in these logit models because of perfect prediction problems (which arise from the limited number of races in combination with categorical control variables).

⁷⁶ See Rosenberg et al. 1986; Rosenberg et al. 1991.

most 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?⁷⁷ 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 potentially 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 influ-

⁷⁷ Ames, Baker, and Renno 2008.

ence less informed voters whose criteria for selecting among candidates are already of dubious value.⁷⁸ Second, although we have ruled out several 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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