Predicting Elections from Politicians’ Faces

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People are quick to infer the character of others from their faces. This human predisposition to make snap judgments affects hiring decisions (Meehl 1965) and voters’ choices (Todorov et al. 2005). Plato asserted that such inferences would harm people’s ability to elect competent leaders, such as ship captains (Plato 1901). Voting might reasonably be considered a deliberative process of evaluation and choice. However, work on thin-slice judgments suggests that social evaluations may be made very quickly, to the extent that they are an automatic rather than a controlled process. Ambady and Rosenthal (1992) reported that evaluative judgments made from “fleeting glimpses” or thin slices of expressive behaviour were accurate given as little as 30 seconds of exposure. Bar, Neta and Linz (2006) found that consistent facial impressions were formed from just 39ms of exposure. However, Carney, Colvin and Hall (2007) determined that the accuracy of such first impressions depends on the judgment being made.

We reasoned that irrespective of whether snap judgments of character were accurate or not, they might provide accurate predictions of voting decisions well in advance of polling day, even before candidates had announced their intentions to run.

In order to test this hypothesis, we conducted an experiment to discover whether or not candidates who look competent receive more votes than other candidates. Specifically, we sought to predict the two major party nominees and the outcome of the 2008 U.S. presidential election as early as August 2007. We obtained facial competence ratings of 11 potential candidates for the Democratic Party nomination and 13 for the Republican Party nomination. To avoid raters who recognized the potential candidates, we in the main used high school and university students from Australia and New Zealand. A smaller number of American university students also rated the candidates, but in no case was a score used if the rater recognized the candidate.

Prior Research

Two weeks before the 2004 U.S. general election, Todorov et al. (2005) presented facial photographs of candidates for the 32 Senate races to 127 subjects. Based on exposures of one second or less per pair, the subjects rated which of the two candidates (Republican or Democratic) looked more competent. When subjects recognized a candidate, those judgments were excluded. Competence ratings correctly predicted
election winners in 69% of the 32 races. Similar results were obtained for the 2004 U.S. House of Representatives elections, as well as for the 2000 and 2002 U.S. House and Senate elections.

Rosenberg et al. (1986) found that people were remarkably consistent in their ratings of the characters of assorted candidates (black-and-white photographs of middle-aged white men in suits). Ratings of congressional demeanor and character traits were related, and congressional demeanor ratings were predictive of voting by participants in the research. Moreover, the effect of appearance on voting was substantially greater than the effect of the party affiliation and positions on issues ascribed to the candidates. Congressional demeanor was also strongly related to ratings of leadership ability and negatively related to attractiveness. The relationship with competence was weak, but the researchers did not report testing competence as a direct predictor of voting.

Results on attractiveness are mixed. In an experimental study, Sigelman et al. (1987) determined that a female candidate’s attractiveness had no direct impact on support for her candidacy, but that attractiveness affected perception of other traits that indirectly impacted her support. Berggren et al. (2010) found that beauty outperformed other traits, including competence, in explaining the share of votes in Finnish elections. However, Nixon and Pollom (2006) found that attractiveness was not a factor influencing voter preference. Poutvaara et al. (2009) determined that while competence evaluations were stronger predictors of the electoral success of male candidates, beauty evaluations were stronger predictors of female candidates’ success. Conversely, King and Leigh (2009) found beauty evaluations were predictors of vote share for both males and females, with a stronger effect for males.

Little et al. (2007) studied differences in facial features and concluded that they correlated with general election results; however, the study did not rate these features on characteristics such as competence. A second study reported in Little et al. examined the effect of a hypothetical wartime setting and found that this resulted in an increased share of votes for candidates whose faces appeared more masculine and dominant, whereas candidates whose faces appeared more attractive, forgiving, likeable, and intelligent performed better in hypothetical peacetime elections.

Following the completion of our fieldwork, we learned of experiments by Antonakis and Dalgas (2009). They asked Swiss subjects to rate 57 pairs of black and white photos of the faces of candidates in the 2002 French parliamentary election. By including only elections in which the incumbent candidate lost, the
researchers avoided contests where one or both of the candidates looked clearly incompetent. In their first experiment, a pair-wise comparison of candidates by university students, the results correctly identified 72% of the winning candidates.

In their second experiment, conducted in May 2008, Antonakis and Dalgas tested Plato’s observation by presenting 841 subjects (81% of whom were young children) with a pair of photos used in the previous experiment and asked them which they would choose to be the captain of their boat for a computer simulated trip from Troy to Ithaca. Seventy-one percent chose the photograph of the candidate who won the election. In other words, the predictions from the children’s judgments were as accurate as those of the adults. The authors also presented subsamples of their subjects with photos of McCain and Obama (10 children), and Clinton and Obama (13 children). In each case, Obama was chosen as the captain significantly more often than his opponent. Antonakis and Dalgas suggested that facial inferences are either hard-wired or learned early in childhood.

**Study Design**

We extended the findings on facial appearance to long-term forecasts of candidates' success in the U.S. presidential primaries and caucuses based on snap judgments of competence. To do this we asked subjects to rate each candidate’s competence by looking briefly at a photograph of his or her face. We refer to the resulting measure as “facial competence.” We then assessed whether the ratings could predict which candidates would receive the most votes in primaries and caucuses for their party’s nomination. Facial competence scores were used to predict the candidate with the highest popular vote in the general election.

Our approach was similar to that of Todorov et al. (2005) and Antonakis and Dalgas (2009) in that we used photographs of candidates and sought judgments of facial competence from people who did not know the identity of the candidates. However, instead of pair-wise comparisons of candidates for a large number of elections, we sought specific ratings of facial competence for several competing candidates observed individually.

We hypothesized that as voters became familiar with the candidates, relative support for the candidates measured by opinion polls would move toward the facial competence ratings we had obtained at an earlier
date. This is because early in the campaign voters have had few opportunities to associate candidates' faces with their names. As the campaign progresses, exposure to advertising, televised debates, and other media coverage provides those opportunities. Of course, as the campaign progresses, voters are also subject to other competing influences that might affect their choice of candidates, such as candidates' positions on issues.

Candidates

We included all announced and potential candidates for the Democratic and Republican nominations we were aware of in May 2007. Some announced candidates later withdrew and some potential candidates never entered the race. However, by casting a wide net we made sure to include all plausible nominees. The candidates are listed in Appendix B.

Prior research shows that choice of clothing and the setting (e.g., a person pictured alongside an American flag) affect evaluations of people (Stuart & Fuller 1991). Therefore, we used photographs that included only the faces of the candidates. The task of finding neutral photos with uninformative backgrounds proved more difficult than we expected, and we needed to retouch the backgrounds in most of the photographs to create a standard appearance.

To guard against picking an unrepresentative picture, we selected what we judged to be the two most representative color photos of each candidate from among those we found and rotated them among the raters. Each rater saw only one photograph of each candidate.

Ratings

Our raters were students in classroom settings at Victoria University of Wellington, the University of South Australia, Wellington Girls College (a New Zealand high school), and the University of Central Oklahoma. From May through mid-August, 2007, the students were shown photographs of each of the candidates. We varied the order of the photographs that were presented to the raters.

For each candidate we used ratings only from subjects who could not identify the candidate. We asked the raters if they recognized the people in the photos; if they claimed that they did, we eliminated those responses even if they wrongly identified the candidate. As we anticipated, raters in Australia and New
Zealand recognized fewer candidates than raters in the United States. However, some candidates, particularly Hillary Clinton, were quite often recognized.

Using our questionnaire (reproduced in Appendix A), the raters scored each candidate’s competence using a scale of 0 (“completely incompetent”) to 10 (“extremely competent.”)

**Findings**

The average ratings for each candidate are presented in Table 1 for Democratic candidates and in Table 2 for Republican candidates. The sample sizes ranged from 139 for Clinton to 348 for Tancredo.

The smaller sample sizes arose when more ratings were excluded because raters said they recognized the candidates. In addition to Clinton, other widely recognized candidates were John Kerry, Al Gore, and Barack Obama. In general, there was much higher recognition of the Democratic candidates than of the Republican candidates.

The Democratic candidates had the highest facial competence ratings. The six highest rated candidates were all Democrats. Of the six, Clinton, with a 7.2 rating, had a clear lead. Clark was second at 6.9, closely followed by Obama at 6.8, Edwards at 6.5, Gore at 6.4, and Dodd at 6.3. On the Republican side, McCain, Hunter, and Hagel were tied for first at 6.2. Paul, Romney, and Gilmore were close behind at 6.1.

**Facial Competence and Poll Results**

After obtaining facial competence ratings of the candidates, we compared the ratings with voter preferences measured by opinion polls as reported by PollingReport.com. We assessed the relationship between candidates’ facial competences and their standings in the polls during two time periods: first, the week following Labor Day 2007, as the fall campaign in the early primary states became more active; second, winter and spring 2008, from the early January primary and caucus contests to the time when the party nominees were decided in March for the Republicans and June for the Democrats.

*Poll results – period 1: September 2007.* The first period observed was September 4-12, 2007, using polls of likely voters conducted during that period. We omitted from our analysis candidates for whom poll data
data were not reported. We also excluded polls that did not measure support for Al Gore who, although undeclared, was at that time a potential candidate. Exclusion of these polls did not change the rankings of the other Democratic candidates. The data for nine Democratic and 11 Republican candidates are reported in Table 3. As the polling results show, there was considerable uncertainty as to which candidates would win the party nominations. Uncertainty was also evident in the betting market figures at the time.

The Democratic candidates’ standing in the early September polls was similar to their relative facial competence ratings. This was not the case for the Republican candidates. A possible explanation, as suggested by our earlier discussion, is that voters who participated in these early polls did not know what many of the Republican candidates looked like. This is why we think that relative facial competence ratings provide useful early forecasts. We expected that as voters progressively became familiar with the candidates’ appearances the polling results would move toward the same ordering as facial competence ratings; however, a poorly funded campaign might fail to provide sufficient opportunities for voters to achieve that familiarity. For example, Hunter had the same facial competence rating as McCain, but with only very modest funding for his campaign his poll ratings remained low. Conversely, Giuliani’s facial competence score was low, and he eventually had to quit the race despite the fact that his spending was the second highest among the Republican candidates.

Poll results – period 2: Spring 2008. The second period, most of which coincided with voting in primary elections and caucuses, was a time of change in candidates’ standings in the polls as people began to recognize the candidates. As is evident in data from PollingReport.com, this change began in mid-December for the Republican candidates and in early January for the Democrats. Among Republicans, Giuliani’s lead began a steep decline from about 30% in November, to the low 20s in December, to less than 15% in January. Similarly, support for Thompson, who ranked second in early Republican polls, also declined precipitously. Since these candidates had lower ratings, their drop in the polls was consistent with the facial competence rankings.
Also consistent with the facial competence argument was the increase in standings in the polls of two candidates with high facial competence scores. In January, McCain’s poll numbers had nearly doubled from the mid-teens to 29%. By mid-February, McCain’s poll standing exceeded 50%, as he became the presumptive Republican nominee. Poll numbers for Romney, whose competence rating was only slightly lower than McCain’s, increased from about 10% to 15%.

Changes in poll standing among other Republican candidates were generally consistent with their facial competence scores. However, due to an early win in the primaries, Huckabee gained in the polls despite the fact that his 5.3 competence rating was the lowest among all Republican candidates. He rose from less than 10% at the end of November to more than 18% in December and January, and then to 27% in February. The increased visibility meant that more people had the opportunity to become familiar with his appearance, and his popularity leveled off. Huckabee withdrew on March 4.

Among the Democratic candidates, Clinton’s poll numbers remained constant in the low-to-mid 40s. Obama’s standing rose markedly in January, from the low-20s to the low-30s, and then to the mid-40s by February. By March, Obama had surpassed Clinton in the polls despite his somewhat lower 6.8 competence rating (compared to Clinton’s 7.2). Edwards, whose 6.5 competence rating was lower than Clinton’s and Obama’s, failed to break out of the low teens in the polls and dropped out of the race on January 30.

Facial Competence and Betting Markets

The online betting market, Intrade.com, launched futures contracts for candidates in the Republican primaries on October 25, 2007. Traders assessed McCain’s chances of winning the nomination as less than 0.05 until January 2008, when his contract began a steady increase in value. The market’s assessment of Giuliani’s probability of becoming the Republican candidate was about 0.70 from November to January, after which time it began a steady decline. Traders who bet early on the candidate with the highest facial competence would have made money.

Among leading Democratic candidates, Clinton was the early leader in the Intrade nomination market. Her contract fluctuated mostly between probabilities of 0.40 and 0.50 from early 2005 until mid-2007, when the contract value began rising to a peak of more than 0.70 in Fall 2007. However, after Obama won the Iowa caucuses in early January 2008, the Clinton contract dropped precipitously to about 0.30. Though it rose
again briefly, it then dropped to below 0.30 after Super Tuesday in early February and never recovered. The history of Obama’s contract value is roughly the converse of Clinton’s. After languishing around 0.30 and below through the end of 2007, Obama's contract spiked up to 0.70 after winning in Iowa, dropped to the 0.30-0.40 range, and then began a long ascent to more than 0.90, where it was in late May. As with McCain, traders who recognized early that Obama’s contract price was too low, given his high facial competence, would have made money.

**Facial Competence and The Popular Vote**

Facial competence ratings predicted that McCain and Clinton would win the popular vote cast for their respective party nominations in the state primaries and caucuses. That is, in fact, what happened. When McCain secured the Republican nomination he had 47% of the popular vote vs. 22% for Romney and 20% for Huckabee, his closest competitors. Later, when Obama clinched the Democratic nomination, Clinton was slightly ahead in the total popular vote. Methods of allocating delegates among the candidates within states do not precisely mirror the popular vote. The delegate allocation procedures worked to Obama's advantage, enabling him to win the Democratic nomination in a close contest with Clinton.

We wondered whether the difference in advertising budgets of the candidates made the result closer than had been indicated by the 7.2 versus 6.8 competence ratings of the top Democratic candidates. In the two weeks following Super Tuesday, Obama outspent Clinton on advertising by 3.7-to-1. This is the time at which Obama overtook Clinton in the polls. His campaign continued to spend $1.6 for each dollar spent by hers (University of Wisconsin-Madison 2008).

**Facial Competence and The General Election**

Once the party nominees had been determined, the facial competence hypothesis enabled us to identify the winner of the general election. Obama’s average competence rating was 6.8, compared to McCain's 6.2. Thus, we correctly predicted Obama's victory. With the leading Democratic contenders’ facial competence ratings all higher than those of any Republican candidate, we had forecast as early as August, 2007, that the new President would be a Democrat.
Pollsters can benefit from this finding by showing respondents standardized pictures of candidates when they conduct surveys early in the election cycle. Until this or some other practice that improves early forecasts of election outcomes is widely adopted, people with information on facial competence may make money by judiciously arbitraging the relative share prices and competency rankings of election candidates in prediction markets.

Individual voters could try to avoid becoming familiar with candidates' appearances, and instead make decisions by reading their policies and by obtaining information on their past performance, rather than being swayed by irrelevant factors such as appearance. Voters might, for example, visit Internet sites that simply report candidates' positions, while impartial organizations that seek to provide information to help voters could further their objectives by not providing photos of candidates. Rather than showing recordings of televised debates, they could provide transcripts. As a bonus for voters, reading takes only half the time.

Some governments print candidates' photographs on ballot papers; for example, in presidential elections in Colombia. This practice encourages evaluations based on facial competence rather than on policy. We recommend that it be discontinued.

**Conclusions**

Consistent with prior research on political candidates’ appearance, we found that ratings of facial competence gave useful long-range predictions of the popular vote winners in the presidential primaries and general election. Early polling results were not as predictive as facial competence rankings, perhaps because the poll respondents could not associate faces with many of the candidates’ names.

Our findings suggest that political parties benefit from having competent-looking candidates, because they are more likely to win elections and will thus be better able to further their policy objectives. As with the marketing of commercial products, packaging is important. Political parties could use ratings of facial competence to screen out candidates who are unlikely to appeal to the electorate, thereby increasing the chances they will be in a position to implement their policies. Potential candidates could obtain ratings on their appearance and that of others in order to better assess their own chances before deciding whether to put themselves forward.
References


APPENDIX A

Questionnaire on political candidates (sample)

Please look at the following pictures. Assume that each person is a political candidate. Rate each of them from 0 to 10 as to how competent they look. We are interested in your first impressions, so please work quickly.

Rate the candidate’s competence

1. How competent is the person in the photo? [____] {0…10} 
   {0 = completely incompetent... 10 = extremely competent}

2. Do you recognize the person in the photo?  □ Yes  □ No

3. If “Yes”, who is it?  [_____________________________]
APPENDIX B

Candidates for 2008 Presidential Nomination Included in this Study
(Announced and Unannounced)

Democratic Candidates

Joe Biden – Senator from Delaware
Wesley Clark – retired General, U.S. Army; former NATO commander
Hillary Clinton – Senator from New York
Chris Dodd – Senator from Connecticut
John Edwards – former Senator from North Carolina
Al Gore – former Vice President and former Senator from Tennessee
Mike Gravel – former Senator from Alaska
John Kerry – Senator from Massachusetts
Dennis Kucinich – Congressman from Ohio
Barack Obama – Senator from Illinois
Bill Richardson – Governor of New Mexico; former UN Ambassador

Republican candidates

Sam Brownback – Senator from Kansas
Jim Gilmore – former Governor of Virginia
Newt Gingrich – former Speaker of House of Representatives and Congressman from Georgia
Rudy Giuliani – former Mayor of New York City
Chuck Hagel – Senator from Nebraska
Mike Huckabee – former Governor of Arkansas
Duncan Hunter – Congressman from California
John McCain – Senator from Arizona
Ron Paul – Congressman from Texas
Mitt Romney – former Governor of Massachusetts
Tom Tancredo – Congressman from Colorado
Fred Thompson – former Senator from Tennessee and current TV actor
Tommy Thompson – former Governor of Wisconsin
Table 1: Average facial competence ratings of Democratic candidates

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<tr>
<th>USA</th>
<th>NZ Study One</th>
<th>NZ Study Two</th>
<th>Australia</th>
<th>Total n</th>
<th>Raters</th>
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a Mostly high school girls
Table 2: Average facial competence ratings of Republican candidates

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a Mostly high school girls
Table 3: Facial competence ratings compared to polling percentages, September 4-12, 2007

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<th>Democratic Nomination</th>
<th>Average Competence</th>
<th>Average Polling</th>
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Note: We are grateful to Christopher Wlezien for assistance with these poll data.