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The Look of Leadership: Do Perceptions of Facial Features Relate to Perceptions of Character Traits in Political Candidates?

Erin Moseley Westrich

To the University Council:

The Thesis Committee for Erin Moseley Westrich certifies that this is the final approved version of the following electronic thesis: "The Look of Leadership: Do Perceptions of Facial Features Relate to Perceptions of Character Traits in Political Candidates?"

_____
Eric W. Groenendyk, Ph.D.
Major Professor

We have read this thesis and recommend
its acceptance:

_____
Heather Larsen-Price, Ph.D.

_____
David Houston, Ph.D.

Accepted for the Graduate Council:

_____
Karen D. Weddle-West, Ph.D.
Vice Provost for Graduate Programs

THE LOOK OF LEADERSHIP: DO PERCEPTIONS OF FACIAL FEATURES RELATE
TO PERCEPTIONS OF CHARACTER TRAITS IN POLITICAL CANDIDATES?

by

Erin Moseley Westrich

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To my loving husband, Robert.

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Abstract

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Analyzing how perceptions of facial features relate to perceptions of character traits in political candidates, this paper explores the implications of voters examining candidates based on appearance. If respondents are looking for a "trustee" representative they trust to represent them fairly, results will show respondents look for universal features that are perceived to be connected to perceptions of trustworthiness, honesty, leadership and competency. If respondents are looking for a "delegate" representative whom they perceive will represent similar interests, respondents will look for facial similarity between themselves and the candidates they rate higher for the same traits. Findings include significant relationships with different features associated with youth resulting in higher trustworthiness and honesty ratings, as well as significant results relating pointier facial structure to lower honesty and trustworthiness ratings. Results warrant further exploration of these relationships with a more refined method and more precise measures, to be accomplished in future work.

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CHAPTER 1

Introduction

It is relatively common to overhear the comment following a political debate or appearance that the candidate "certainly *looked* Presidential." What exactly does this statement mean? Are there certain characteristics that automatically give a person more credibility among other citizens or do people tend to equate the look of leadership with similarity to their own appearance? At first blush, this question may be an uncomfortable one. Growing up in a society where you are taught that "beauty is only skin deep" and that "appearances can be deceiving", the thought that appearance judgments may actually help citizens vote seems appalling. These trite phrases tap into one aspect of appearance, but a growing literature in cognitive heuristics implies that appearance judgments *should* work and might, in some circumstances, help citizens vote according to their preferences. Not only do political scientists examine appearance judgments, but a large psychology literature also shows that these appearance judgments may be relatively accurate. Further exploration into how exactly physical features relate to character judgments may provide evidence for evolutionary or genetic development of perception linkages, but much more evidence will need to be gathered before this can be said confidently. Conversely, perceived facial similarity may be more important to voters than specific facial features, providing evidence for linkages between appearance similarity and preference similarity.

Political representation has been examined in several different lights, but one of the most intuitive debates is over what voters want from their political representatives. The delegate and trustee perspectives on representation provide a reason to examine appearance as a cue to selecting preferred representatives (Pitkin, 1967). If people are found to look for common features across the population there may be reason to further

examine if these features predict some genetic predisposition to leadership. This would enhance the trustee argument since voters would be looking for some trait that enhances their trust in a person to represent them wisely and fairly. If people are found to look more for similarities between their own face and candidates' faces, this can be argued to support the delegate position since voters would be looking for a similar-looking person to represent them and their interests in office.

While research has been conducted on whether voters can predict the outcome of elections on the basis of exposure to the candidates' photographs (Todorov, Mandisodza, Goren, & Hall, 2005), there is surprisingly little research on what the specific facial features are that voters take as cues of competence. What does this mean for democracy and, more specifically, for representation? Is it possible that appearance conveys real information? Does a small nose, large ears or eye shape have anything to do with whom a person votes for? What are some of the traits common among political figures who rank high in perceived "political competence"? While stereotypes and prejudices may play a large part in the story, might these physical traits even correlate with personality traits that can signal to voters, with relative accuracy, that a person is more capable as a leader?

Forming Political Judgments

Delli Carpini and Keeter (1996) found that even with dramatic increases in education from the 1950s to 1989 still only about half of the adult population knew which party controlled the House of Representatives, less than half knew what the first ten amendments to the Constitution are called, and less than 60% could define "recessions". Previous research shows that in the absence of information, individuals rely on shortcuts

or heuristics to make decisions (Rahn, 1993). This thesis posits that the average voter utilizes appearance as a cognitive shortcut when assessing candidates about whom they have no other information. Given that Delli Carpini and Keeter show that the average voter has little political knowledge (including who their Senators and Congressmen are). In political elections, voters will behave with "bounded rationality", defined by Simon (1985) as putting the least amount of resources into getting the desired final output. In low information environments, voters rely on heuristics in lieu of complete information to make decisions. Previous work has focused on a wide variety of heuristics ranging from party identifications (Robertson, 1976) to affect (Brady & Sniderman, 1985). This thesis analyzes the candidate appearance heuristic.

Scholars have long realized that there may be a direct connection between candidate appearance and voter choice of candidates (Dion, Berscheid, & Walster, 1972). Various aspects of appearance have been examined in efforts to better understand the link between appearance and preference: positive/negative reactance (Bar, Neta, & Linz, 2006; Mattes et al., 2010, Todorov et al. 2005), similarity (Bailenson et al., 2006; Caprara, Vecchione, Barbaranellu, & Fraley, 2007), beauty (Andreoni & Petrie, 2007; Dion et al., 1972), competency (Ballew & Todorov, 2007), leadership (Rule & Ambaday, 2008), "babyfacedness" (Masip, Garrido, & Herrero, 2004; Poutvaara, Jordhal, & Berggren, 2009) and trustworthiness (Walker & Vetter, 2009). All of these studies focus on how voters judge these overarching traits solely through pictures but no study breaks down what the specific features are that contribute to a judgment of beauty, for example. How the feature's size/shape affects judgments of an individuals' competency or leadership is of interest in addition to identifying which features affect these

judgments. Previous studies simply analyze the correlation between judgments of

leadership and electoral success. Others analyze links between overall facial shape and

competence. This study seeks to examine which particular facial features affect

competence judgments. Voters may rely on a Facial Similarity Heuristic in an attempt to

delegate power to candidates whose policy interests match their own. Conversely, voters

may rely on the Facial Feature Heuristic, attempting to entrust power to candidates who

posses certain attributes. Judging the effectiveness of these strategies is beyond the scope

of this thesis, but examining these relationships will help assess the viability of a trustee

representative versus a delegate representative view of American democracy.

Study and Use of Political Heuristics

A very dismal view has long been assumed when discussing the knowledge and

involvement of the general public in relation to politics (Converse, 1964; Delli Carpinni

& Keeter, 1996). Various scholars have attempted to remedy this seeming gap between

public knowledge and a functioning democracy that requires an involved citizenry.

Anthony Downs (1957) builds a rational choice model of political behavior by defining

"rational" as putting the least amount of resources into getting the desired final output.

Voters maximize their utility through policy payoffs which come n the form of party

power, but the costs weigh very heavily on voting behavior. Simon (1985) expands upon

Down's argument and coins the term "bounded rationality" to account for the fact that

cognitive effort is costly. The 1990s brought further exploration into ways that voters

might minimize the amount of cognitive resources used to form a political preference.

These cognitive shortcuts, or heuristics, became a focus of political scientists

looking to remedy the gap between rational behavior and voting behavior. Even though

the chance of one person's vote directly influencing the outcome of a national election is miniscule, voters continue to turn out year after year. How do these citizens who are seen to be so ill-informed able to maintain a functioning democracy? Many scholars believe there are cues that are available to citizens that help them organize and make sense of the barrage of information that citizens have to assimilate to make political decisions (Bartels, 1996; Lupia, McCubbins & Popkin, 2000; Popkin, 1991; Sniderman, Brody & Tetlock, 1991). A number of these cues have developed with society and include party identification (Robertson, 1976), economic evaluations (Fiorina, 1981), and affect (Brady & Sniderman, 1985). The potential impact of these cognitive cues is summed up perfectly by McKelvey and Ordeshook (1986) who state "Cues can provide more than approximations: They can provide, under appropriate assumptions, all the information that is required to identify a preferred candidate" (p.934). If, as the literature shows, heuristics such as appearance are not devoid of content, but may actually help voters make better decisions, are heuristics the answer to a poorly informed electorate electing adequate representation?

Taber (2003) argues that voters do not have to remember all the information they know about political candidates, but rather voters will remember the way that the information made them feel about the specific candidate. These individual judgments are added to any previous feelings about a candidate to get a voter's current "hot cognition" or feelings about a candidate. If the only cognitive cue available is candidate appearance, reaction to certain facial features would contribute heavily to any substantive judgments made about that candidate (Lodge & Taber, 2000).

Facial Appearance as a Heuristic

Facial appearance particularly has an interesting history in the social sciences as a cognitive cue. People willingly attribute personality traits (i.e., competence, intelligence, honesty and trustworthiness) to people they have never seen before based purely on facial appearance (Bar et al., 2006; Bruce & Young, 1986; Hassin & Trope, 2000; Zebrowitz, 1997). Negative reactance, meaning reacting to appearance in a negative way, or disliking, had been demonstrated to have a larger effect on preference judgments than positive reactance. Bar et al. (2006) provide support for negative reactance, in this case threat judgment, to be determined consistently after exposure to an image of the person for extremely limited time periods. The same study showed that survey participants required a longer length of time to gauge a consistent intelligence judgment for the same candidates. These findings strengthen the theory that there are evolutionary reasons behind first impressions since survival-related instincts are consistent after such a short exposure to pictures of faces.

What features get assessed when a person makes a snap judgment about a stranger? Prejudice may play into these snap judgments. Amodio and Devine (2008) argue that stereotypes and prejudices are two different types of judgments based on cognition and affect, respectively. Basing judgments on affect lead to more consummatory behavior such as racism. Judgments based on cognition lead to more instrumental behavior which draws on stereotypes without activating prejudices. Kuklinski and Quirk (2000) argue that human cognition is simply not well adapted to the task of citizens and Lau and Redlawsk (2001) conclude that heuristics do not necessarily help citizens in making "better decisions". While it is all but impossible to study

cognition without affect, or affect without cognition, Amodio and Devine show that some human judgment can be based on stereotypes without prejudice. But prejudice may be the reason that some scholars say cognitive cues cannot help citizens. The possible interaction, or distinction, between knowledge and prejudice might account for Lau and Redlawsk's findings if prejudice is in fact activated more easily at lower levels of knowledge. That discussion begins to get beyond the scope of this paper, but suffice it to say that cognitive cues have a much argued place within voter behavior.

However, humans also have an evolutionary need to be able to make snap judgments of personal threats. Are appearance judgments efficient heuristics or prejudice? Previous research shows that threat has to be recognized instantly for survival purposes, but attraction or appeal is also judged quickly and favorably (Todorov et al., 2005). Attraction or appeal, while able to be judged quickly, are also judged over longer periods of time, taking more than just gut feelings into account. Recent studies show that candidates who are perceived as more attractive are more likely to win elections (Atkinson, Enos & Hill, 2009; Banducci et al., 2008; Berggren, Jordhal & Poutvaara 2010; Lawson, Lenz, Myers & Baker, 2010). After looking at photos of political candidates devoid of any other information than appearance for one second, respondents' competency inferences have predicted the winner in the race in 71.6% of Senate races and in 66.8% of House races between 2000 and 2004 (Todorov et al., 2005).

Perhaps most interesting to this study is a previous study by Rule and Ambady (2008). This study asked for facial feature ratings and character trait assessments of CEOs of Fortune 500 companies. Rule and Ambady found that attractiveness directly related to leadership judgments of these CEOs. In turn, the leadership judgments

predicted the company's profits with more attractive people showing higher company profits. This evidence supports the hypothesis that there may actually be a link between appearance and competence. If appearance works as a cognitive cue for actual performance in the business world, is the same true about the political world? In low information elections where there is little other information on the candidate besides appearance, facial judgments must factor heavily into the "first impressions" that voters form about candidates as they are casting their ballot. First impressions of new acquaintances are based significantly on appearance (Hassin & Trope, 2000), and character judgments based solely on appearance have been shown to be fairly accurate (Ballew & Todorov, 2007). Since these character judgments are based on facial features and appearance, what specific facial features are related to these judgments?

Do certain features individually bear on a person's judgment of a stranger or do features work in tandem for a whole picture of the face that suggests some personality trait or another? Poutvaara, Jordhal, and Berggren (2009) find that babyfacedness, defined as "neotenous facial features like a round face, large eyes, small nose, high forehead, and small chin" is negatively related to inferred competence in politics, but is unrelated to electoral success (p.1132). This study addresses some of the same concerns as Poutvaara et al. but looks at individual facial features instead of features as part of a whole. Also, Poutvaara et al. do find that babyfacedness does in fact relate to competence judgments, albeit in a negative direction.

Appearance and Political Representation

Individual features and their relationship with character judgments will provide some very interesting insight into political representation. While the Appearance

Heuristic could also be examined in light of the substantive versus symbolic representation debate as well, my research focuses on the delegate versus the trustee representative, as laid out by Hannah Pitkin (1967). Pitkin argued there are different types of representation, including the "trustee" and the "delegate" representatives, each having their own positives and negatives to the citizenry and to democracy. Trustees are representatives that the citizenry trusts to make decisions that are the best for the general public. Delegates are representatives that are sent purely to represent the citizenry. The representative has more leeway and freedom as a trustee. The delegate representative would be expected to vote exactly how his/her constituency would, not trusted to make a decision that would be better for the whole but might not be the best possible decision for his/her specific pocket of the electorate.

Facial features linked universally to competency judgments would provide support for the citizenry believing "good" representatives share certain physical traits, and so voters will look for certain physical features on which to base their competency judgments. Opposing arguments would be supported if a link exists between similarity ratings of candidates and competency judgments. This finding would support the idea that people want a delegate to represent them based on the idea that similar appearance equates to similar interests. These findings would be theoretically grounded within deliberative democracy research. This study looks to go beyond current research that modifies or generates face databases by utilizing actual candidates from the 2010 Senate race. Where previous research grouped faces according to predetermined valence and dominance (Oosterhof & Todorov, 2008) or personality trait (Walker & Vetter, 2009), this study measures respondents' judgments of both physical features as well as character

traits and analyzes the relationships between these judgments as opposed to assuming the attractiveness, trustworthiness, honesty, competency or leadership trait of a face. This makes it possible to investigate how individuals' predispositions and biases might shape these perceptions for better or for worse.

While the work by Todorov is impressive in its operationalization of social judgments into an adaptable facial structure, the disadvantage of his method lies in the lack of a measure of facial reflectance, or how alike the manipulated face is to the survey respondent's face. Numerous behavioral studies have examined this perception of facial similarity, or lack thereof, to be related to trait judgments (including but not limited to: Hill, Bruce, & Akamatsu, 1995; O'Toole, Vetter, & Blanz, 1999; Yip & Sinha, 2002). Faces that do not necessarily look like actual human faces could possibly skew how the features are utilized in judgment decisions. As Walker and Vetter (2009) point out, there is also the problem that this manipulation of the two social dimensions was applied without any facial hair or other facial cues (make-up, accessories, etc.) making the faces looks slightly unreal. Todorov et al. (2005) reduced the different facial features into only two groups. If the question is "what are the actual individual characteristics that make a person appear competent", Todorov may be overlooking critical dimensions. This study attempts to answer some of these previous problems by: (1) gathering a measure of similarity by asking study respondents to rate the similarity between their own face and the faces being analyzed, (2) gathering and utilizing a database of actual political candidate pictures so that the faces cannot be said to look unreal, and (3) breaking down the aggregate facial constructions into individual facial features.

Walker and Vetter (2009) attempt to address and alleviate some of the problems associated with Todorov's study. These authors also test facial rendering that they constructed from photographs and manipulated along what they term "social vectors in face space" (p.8) and find that different regions of the face equate to different social judgments: the mouth determines judgments of social skills but the eyes predict extroversion. They also find that the shape of features like the corner of the mouth factor into extroversion judgments, but the position of the mouth affects judgments of aggression. In short, shape and configuration of features are responsible for different perceptions but the different regions of the face predict different judgments of personality traits. The authors also factor in perception of reflectance between the projected face and the participant's face. So they expand in many ways upon the work done by Todorov and company, most specifically by including a measure of perceived similarity between respondent and candidate faces.

Previous data has been collected on facial feature/region analysis but with constructed or morphed faces, not actual candidate faces. A unique contribution of this study is the fact that actual candidate photographs were utilized, allowing for a more realistic judgment. I am compiling a dataset of real world candidates in political races from the 2010 elections and seeing if the average voter's perception of the different facial features of the candidates in a race can be compared between candidates to see if there is a difference in any specific facial features that project competence or leadership. While Todorov looked at whether individual's snap decisions about who won a political race based solely on appearance resulted in correct predictions, and Walker and Vetter address (and narrow the study) into what facial regions affect what social judgments, I

specifically want to examine in continuing analysis if the mean perceived difference between two candidates on one, or a few, facial features can predict which candidate won the election.

The examination of trust in government runs throughout literature discussing what representative is and should be. Does trustworthiness equate to competence judgments, or even higher electoral success? Will the main facial regions that affect the personality trait of "competence" in my study focus along the same lines as the "trustworthiness" vector in Walker and Vetter's work? Theoretically, as well as intuitively, it seems that the mouth region (including the jaw line) will contribute to the competence as well as trustworthiness judgments. The personality traits of honesty and trustworthiness should also be seen in changes in the eye region of the face. By combining the examination of both areas of the face among real political candidates, the difference in these traits between the candidates should predict the electoral outcome of the actual election if there is validity in the idea that facial features can be used as a low-information heuristic by voters.

(H1) Wider eyes will relate to lower competency ratings as these will be related with less maturity. Wider eyes are one of the individual components of babyfacedness discussed by Poutvaara et al. (2009). (H2) A more defined jaw line will relate to higher competency ratings as these will be related to more mature facial features. Working off of the babyfacedness literature, there is reason to suspect that just as more rounded faces with less defined features equate to lower competency ratings, more defined features, or a pointier skeletal structure might equate to more maturity which should equate to higher competency ratings. (H3) A smaller nose will relate to lower competency ratings.

Again, smaller noses are part of the definition of babyfacedness as defined by Poutvaara, et al. (2009). There is also theoretical reason to believe that since the nose continues growing in size after age 40, smaller noses may be equated with youth and less competence (Patterson, 2009). As nose size increases, competency ratings are thought to go up. Competency ratings are just one of the multiple facets of representation that will be assessed in the survey. Trustworthiness, honesty, and leadership are the other characteristics that respondents will be asked about, rounding out the category of theoretically desired representative character traits.

Lenz and Lawson (2010) in their article "Looking the Part: Television Leads Less Informed Citizens to Vote Based on Candidate's Appearance" look to analyze the question of how much appearance matters by analyzing the 2006 Cooperative Congressional Election Study's senate and gubernatorial data and juxtaposes that information with Todorov's (2005) appearance scores. Todorov and his collaborators had students compare two similar sized, black and white photos of candidates and then assess which ones seemed "more competent", more likeable, more intelligent, etc. Lenz and Lawson (2010) find that appearance is used as a simple heuristic by people with lower information about the candidates and lower levels of political knowledge in general. This is specifically true of people who also watch a lot of television and so are more exposed to pictures of candidates, and therefore have more basis to make judgments based on that appearance. Lenz and Lawson analyze two datasets in a very clever way that brings television watching data together with the candidate appearance scores of Todorov (2005) to discuss the effect of television viewing on using appearance as the primary source of political choice. Building upon Lenz and Lawson (2010), the current

research assesses how individuals actually utilize appearance when it is the only information they have to make a political choice. Studies have also been done using international elections, to see if there is a universal quality or personality trait that the physical characteristic of having a more symmetrical or attractive face implies, with mixed results. Building upon this work, I go beyond Todorov by specifying what features actually factor into his competence ratings, as well as what facial features factor into other character judgments.

Similarity between candidate faces and voter faces has been theoretically linked to personality traits, but Bailenson et al. (2006) and Caprara et al. (2007) find there to be no main correlation between similarity and attraction. Bailenson et al. (2006) utilize facial morphing techniques to enhance the similarity between the candidate that respondents were asked to evaluate and the respondents themselves. The facial morph was 60% candidate face and 40% respondent face. The authors found no relation between similarity and trait over all, but found that men preferred the morphed image and females rejected the morphed image. The lack of relationship between similarity and character traits could be due to problems with the facial morphing, but theoretically there should be no link if representatives are chosen to be trustees rather than delegates.

As Bailenson et al. (2006) addresses, there are several potential methodological concerns with facial morphing, but the most applicable is the authors' acknowledgment of the possible problems with morphing female faces over male faces. This method may leave some visual markers as male and female faces are shaped differently (Bailenson et al., 2006, p.380), causing an unappealing aesthetic to female respondents. This would account for the opposite reactions between men and women in the experiment as well as

support the findings of this survey that gender does not affect the correlations between specific facial features and personality trait judgments. Further exploration of similarity is therefore warranted.

While Todorov et al. (2005) and Zebrowitz and Montpare (2005) both show that after short exposure to candidate photographs, people can provide competency judgments that correlate to electability and vote share, this study examines the links between *specific* facial features and competency judgments, in addition to other character trait judgments. These relationships need to be better examined to fully understand how appearance has evolved as a cognitive cue, as well as how appearance relates to voter choice.

CHAPTER 2

Method

I compiled a database of political candidates who ran for Senate in 2010 for this

survey. There were 35 Senate races in 2010. Since I eventually want to analyze the

relationship between electability and these perception judgments, I needed to include the

winner as well as the runner-up in each race, meaning 70 candidates. Races in close

geographical proximity to Memphis, TN were eliminated due to potential candidate

recognition issues since raters live in Memphis, TN. Races involving a current or recent

member of the Senate leadership were then eliminated for the same reason, as well as

races that received an exceptional amount of national coverage. The remaining races

were cut down to 20 races with pictures of the winner as well as the runner-up in the

2010 election, resulting in 40 candidates. This process was completed by generating a

random number table and eliminating the races that corresponded to the generated

numbers until the number of candidates was reduced to 40. Time restrictions on the

survey required a maximum of 40 candidates. The survey was then split into 7 sections.

Sample

A total of 164 respondents answered the seven different sections of the survey.

Participants rated randomly assigned sets of candidates[1]. Respondents were

undergraduate students who received a small amount of extra credit for completing the

survey. These students were drawn from several different undergraduate courses.

Approximately half of the respondents were female and half were male (83 males, 81

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[1] A number of participants failed to complete the entire study. However, because candidates were randomly assigned, this is not a problem.

females). Approximately 40% were African American, 50% Caucasian, 4% Hispanic and 6% Asian.

Respondents were told they would be rating political candidates on several personality traits as well as specific facial features. Since this survey was designed to measure judgment when appearance is the only cognitive cue, participants were provided with no additional candidates information or cues. Respondents were reminded there were no "right" or "wrong" answers and they should not attempt to be polite or kind, but incredibly frank in judging these pictures.

The respondents then completed all or several of the survey sections, depending on time constraints of the respondent. These sections contained approximately 6 candidates and the respondents were required to answer 25 questions about each candidate. These included judgments on honesty, trustworthiness, competency, leadership and attractiveness as well as judgments of the nose, ears, eyes, forehead, cheekbones, jaw line, and hairline. The sections were set up to show the candidates per section in random order with the order of questions about a single candidate also being randomized to eliminate question order effects.

Measures

As the hypotheses being tested are about perceptions of facial features contributing to perceptions of character traits, the independent variables measured in the survey were individual facial features. Eyes, ears, and nose were rated on size. For example, the respondent would answer the question of "Please rate Candidate A's ears on a scale of 1-5 (1 = Very Small to 5 = Very Large): (1) Very Small, (2) Small, (3) Midsize, (4) Large, (5) Very large". Jaw line and cheekbones were rated on definition. Hairline was rated on fullness of hair. The variables thought to be dependent included

"trustworthiness", "honesty", "competency", and "leadership". For example, the
respondent would answer the question of "Please rate Candidate A on a scale of 1-5 (1=Very
to 5=Not at all) on "trustworthiness": (1) Not at all, (2) Not very, (3) Uncertain, (4) Somewhat,
(5) Very". Measures of jaw line and cheekbone definition correlated at .77, and so the
Jaw line perception was used to represent the skeletal structure of the candidates' faces.

CHAPTER 3

Results and Discussion

The first phase of analysis of the survey data has shown some very interesting patterns. Since judgments based solely on appearance were the focus of this research, any case where the respondent recognized the candidate in question was excluded from analysis. Since the survey judgments of facial feature size have a subjective component to them, the mean feature judgment was used in the OLS regressions with character traits. Table 1 shows a regression of facial features and character judgments showed several interesting results. Nose, ears, hair line, and jaw line show significant relationships with judgments of honesty and trustworthiness.

Table 1
Relationships of Facial Feature Perception Judgments and Character Trait Perception Judgments

Feature	OLS Coefficient (Standard Error)			
	Trustworthiness	**Leadership**	**Honesty**	**Competency**
Eye Size	-0.053	-0.024	-0.032	-0.02
	(0.039)	(.047)	(.038)	(.035)
Nose Size	-0.117*	0.033	-0.11*	-0.044
	(.048)	(.057)	(.046)	(.043)
Ear Size	0.073*	0.054	0.075*	0.008
	(.036)	(.043)	(.034)	(.032)
Hair Line	0.099*	0.08*	0.07*	0.072*
	(.022)	(.026)	(.021)	(.02)
Jaw Line	-0.092*	0.023	-0.087*	-0.002
	(.042)	(.05)	(.04)	(.038)
Gender	0.069^	0.029	0.089*	0.021
	(.037)	(.044)	(.036)	(.034)
Constant	2.76	3.43	2.77	2.94
	(.28)	(.34)	(.27)	(.26)

*p<.05. ^p<.10.

Even though eye size did not have a statistically significant relationship with competency, wide eyes are referred to as "doe eyed" and "innocent" by some of the survey respondents in the open-ended questions asked about why they rated candidates the way they did on the character trait judgments, lending credence to Hypothesis 1. While more defined features were thought to have a positive relationship with representation traits in Hypothesis 2, results show that those candidates with more defined features were rated lower in honesty and trustworthiness ratings. This seems to provide support for the common equating of pointier features with ferret or weasel-like traits. It seems that pointer features are equated with the dirty, rodent set of behaviors including sneakiness. In Table 2, two candidates from opposite ends of the skeletal structure ratings are displayed.

Table 2
Candidate Facial Definition Comparison

2010 Senate Candidate Pictures		
Jawline Definition	2.43	3.91
Honesty Rating	2.96	2.9
Trustworthiness Rating	2.92	2.79

Interestingly, larger noses are shown to relate significantly to lower trustworthiness and honesty ratings among the political candidates rated, contradicting Hypothesis 3. This result may make sense when the youth of the sample population is taken into consideration. As a majority of my sample came from Undergraduate Political Science and Psychology students, there may be a preference for youth that would not be found to hold across the different age brackets of the population.

Gender was used as a control variable, since previous research has suggested that gender may affect appearance judgments. Hairline continues to show a significant relationship with leadership and competency ratings. Eye size and chin size do not show a statistically significant relationship with any character judgment perception ratings. Cheekbone definition and jaw line definition correlate at .77. This co-linearity means that cheekbone and jaw line definition are measuring the same thing, presumably facial skeletal structure, or weight. I continued analysis of this set of features by retaining jaw line definition as an examined facial feature.

Nose, ears, hair line, and jaw line have significant relationships with trustworthiness and gender has a marginally significant relationship with trustworthiness. As ear size perceptions and hairline perceptions grow larger, or fuller, candidates are perceived as more trustworthy. As perceptions of nose size and jaw line definition grow larger, candidates are rated as less trustworthy. Nose, ears, hair line and jaw line have significant relationships with honesty judgments. Ear size and hairline show that as perceptions of ear size grow and hair line is perceived as having more hair, candidates are rated as "more honest". Nose size and jaw line still have the significant relationship with

honesty that they do with trustworthiness. As nose size and jaw line definition perceptions increase, candidates are perceived as "less honest".

Interestingly, leadership and competency ratings were not significantly related to any feature except hair line. The relationship here may be an indicator of use of the hairline feature (scaled 1 = No Hair to 5 = Full Head of Hair) as an indicator of age and possibly maturity, since as hair line moves up, leadership and competency ratings (scaled 1=Very to 5=Not at all) move down in number, or up in ability and transparency.   Since respondents did not receive any other information about candidate age, this is an important finding. Perhaps respondents considered older people to be more experienced and thus more qualified to lead. Lacking other information about age, respondents made these character judgments based on appearance.

In future investigation, I will examine if this effect holds even if candidates' age is held constant, meaning I will examine how perceptions of age affect character judgments for candidates of the same actual age. If the effect holds, this might suggest that older looking candidates are gaining an advantage on character perceptions. This finding would hold with Poutvaara et al. (2009) as the flip side of their babyfacedness theory. Since babyfaced people have been found to seem more honest, but also less capable, more mature faced people would be expected to be found *more* capable. Hairline continues to have this significant effect on trustworthiness ratings as well as honesty ratings, making this the most significant relationship between a physical facial feature and the character judgments.

In addition to rating the candidates on these facial features, survey respondents were asked to judge the similarity between their own face and the one they were viewing.

Table 2 shows the impact of mean perceived similarity on ratings of trustworthiness, honesty, competency and leadership. There is reason to suggest that similarity may, in fact, play an important role in appraisal of candidate appearance. The consistent, if marginal, relationship between perceived similarity and character trait perceptions provide reason for future research and analysis, particularly at the individual level. Respondents may favor candidates that look like themselves. A majority of the survey sample was comprised of undergraduate students, mainly pulled from traditionally first or second year courses (General Psychology, Introduction to International Relations, etc.), resulting in young participants.

Young candidates may actually be preferred, but since the survey sample was overwhelmingly young, a marginal similarity effect may show up without similarity being the root issue. Since some of the other relationships do not point to youth, there is reason to investigate similarity effects further. Further individual-level data collection and analysis will allow me to see if the similarity/trait judgment relationships continue to hold after accounting for the characteristics of the individual and the candidate.

Table 3
Similarity Perception Judgment and Character Trait Perception Judgment Relationships
OLS Coefficient
(Standard Error)

	Trustworthiness	Leadership	Honesty	Competency
Similarity	0.229^	0.054	0.199^	0.169^
	(.122)	(.119)	(.109)	(.092)
Gender	-0.163*	-0.062	-0.158*	-0.092*
	(.0386)	(.038)	(.034)	(.029)
Constant	2.04	2.64	2.17	2.19
	(.533)	(.522)	(.476)	(.403)

p<.05. ^p<.10.

The survey sample analyzed here is one of convenience, but the analysis of preliminary data provides enough support to continue investigating the links specifically between nose size, eye size, attractiveness and competency. The second stage of analysis will make comparisons across candidates that will focus on the average facial feature or character trait score for each candidate and compare these averages to percentage of the vote received in the 2010 election for that candidate. This analysis will be completed with hierarchical regression to attempt to further tease out the relationships between raters and candidates. While faces have been studied before at the aggregate level of appearance, the relationships between the individual facial features and electability will theoretically support the idea of representatives as trustees as opposed to delegates. Once the database of candidates has been established, the independent variable will become the mean difference in physical attributes between the two candidates who actually ran against each other in 2010. This difference in physical "score" will theoretically predict the actual electoral outcome as well as the actual percentage of the vote that the candidates received in 2010. As of the submission of this paper, analysis of data is ongoing.

Recommendations for Future Work

Further analysis of the data is ongoing but from the early detected relationships, further investigation is warranted, particularly into nose and eye size as related to competency, leadership and other character trait judgments. The current work supports a trustee version of representation in which nose size and hair line directly relate to character trait judgments, particularly trustworthiness and leadership. The evolutionary

need for threat recognition and response has been researched and recognized. The findings here suggest that recognition of leadership as well as threat may have political consequences. The fact that nose size and hair line relate to trustworthiness and leadership judgments supports the theory that certain features have become related to leadership in the human mind.

Further investigation of these relationships is necessary to fully understand these linkages; not only continue to test the directional relationships, but to fully understand the theoretical underpinnings of these links between physical features and character traits. Future analysis will be concerned with connecting average feature ratings of the candidates with vote percentage received. Once the relationships between physical features and vote choice are fully examined, further investigation should attempt to answer some of the concerns, such as effectiveness of the appearance as a heuristic. The interaction of appearance with other cognitive cues must also be addressed before the impact of appearance can be decided. While voters *can and do* "judge a book by its cover", whether or not they *should* remains unanswered.

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APPENDIX I

Survey Questionnaire:

1. Please choose your gender.
    a. Male
    b. Female
2. Please choose the political party you most identify with.
    a. Republican
    b. Democrat
    c. Independent
    d. Green
    e. Other
3. Please choose which ethnicity best describes you.
    a. African-American
    b. Hispanic
    c. Caucasian
    d. Asian
    e. Native American
    f. Other
4. Do you recognize the candidate pictured here?
    a. Yes
    b. No
5. Please rate Candidate A on a scale of 1-5 (1=Very; 5=Not at all) on "Competency"
    a. Not at all
    b. Not very
    c. Uncertain
    d. Somewhat
    e. Very
6. Please rate Candidate A on a scale of 1-5 (1=Very; 5= Not at all) on "Leadership".
    a. Not at all
    b. Not very
    c. Uncertain
    d. Somewhat
    e. Very
7. Please rate Candidate A on a scale of 1-5 (1=Very to 5=Not at all) on "trustworthiness".
    a. Not at all
    b. Not very

       c. Uncertain

       d. Somewhat

       e. Very

8. Please rate Candidate A on a scale of 1-5 (1=Very to 5=Not at all) on "honesty".

       a. Not at all

       b. Not very

       c. Uncertain

       d. Somewhat

       e. Very

9. Please rate Candidate A on a scale of 1-5 (1=Very to 5=Not at all) on "attractiveness".

       a. Not at all

       b. Not very

       c. Uncertain

       d. Somewhat

       e. Very

10. Please rate Candidate A's eyes on a scale of 1-5 (1=Very Small to 5=Very Large).

       a. Very Small

       b. Small

       c. Midsize

       d. Large

       e. Very Large

11. Please rate Candidate A's nose on a scale of 1-5 (1=Very Small to 5=Very Large).

       a. Very Small

       b. Small

       c. Midsize

       d. Large

       e. Very Large

12. Please rate Candidate A's ears on a scale of 1-5 (1=Very Small to 5=Very Large).

       a. Very Small

       b. Small

       c. Midsize

       d. Large

       e. Very Large

13. Please rate Candidate A's forehead on a scale of 1-5 (1=Very Small to 5=Very Large).

       a. Very small

b. Small
c. Midsize
d. Large
e. Very large

14. Please rate Candidate A's chin on a scale of 1-5 (1=Very Small to 5=Very Large).
   a. Very Small
   b. Small
   c. Midsize
   d. Large
   e. Very Large

15. Please rate Candidate A's jawline on a scale of 1-5 (1=Weak to 5=Defined)
   a. Very Weak
   b. Weak
   c. Neither
   d. Defined
   e. Very defined

16. Please rate Candidate A's cheekbones on a scale of 1-5 (1=Soft to 5=Very Prominent).
   a. Very Soft
   b. Somewhat soft
   c. Neither
   d. Somewhat prominent
   e. Very prominent

17. Please rate Candidate A's hair on a scale of 1-5 (1=No hair to 5=Full Head of Hair).
   a. No hair
   b. Balding
   c. Receding hairline
   d. Thinning
   e. Full Head of Hair

18. Please rate how similar you think Candidate A looks to yourself on a scale of 1-5 (1=Very to 5=Not at all).
   a. Very Similar
   b. Somewhat similar
   c. Neutral
   d. Somewhat different
   e. Not at all similar

Respondent Demographics

	Male	Female	African Am.	Hispanic	Caucasian	Asian	Native Am.	Other
Section 1	62	62	51	4	57	8	1	3
Section 2	61	61	52	3	56	8	1	2
Section 3	61	63	49	3	60	9	1	2
Section 4	60	65	47	4	60	9	1	4
Section 5	62	58	46	2	60	8	1	3
Section 6	61	60	45	2	60	9	1	3
Section 7	61	60	47	2	60	9	1	2

THE UNIVERSITY OF MEMPHIS
Institutional Review Board

To: Erin Westrich
                           Political Science

From: Chair, Institutional Review Board
                           For the Protection of Human Subjects
                           irb@memphis.edu

Subject: What does Leadership Look Like: Examining Voter Reactions to
                           Candidate Appearance (113010-140)

Approval Date: January 27, 2011

This is to notify you that the Institutional Review Board has designated the above referenced protocol as exempt from the full federal regulations. This project was reviewed in accordance with all applicable statuses and regulations as well as ethical principles.

When the project is finished or terminated, please complete the attached Notice of Completion form and send it to the Board via e-mail at irb@memphis.edu.

Approval for this protocol does not expire. However, any change to the protocol must be reviewed and approved by the board prior to implementing the change.

_____
 Chair, Institutional Review Board
The University of Memphis

Cc: Dr. E. Groenendyk