

Appearance-Based Trait Inferences and Voting: Evolutionary Roots and Implications for Leadership

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Published online: 10 January 2010
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Abstract This paper examines the evolutionary roots of research findings that demonstrate that rapid judgments of political candidates' faces predict electoral success. Also discussed are the implications of these findings for the election and selection of leaders. We argue that rapid judgments of facial competence are a result of immediate, automatic assessment of the strength of a target, reflected in facial cues of dominance/threat; and assessment of facial cues of trust/approachability. As a result, research participants and uninvolved voters select the same candidates—those that appear relatively strong and trustworthy at a glance. The votes of highly involved voters are not influenced by such facial qualities.

Keywords Trait inferences · Facial cues · Voting behavior · Leadership · First impressions · Social cognition

Research on rapid judgments made from “thin slices” of social information has made its way into the popular media via the best-selling book, *Blink*, by Malcolm Gladwell (2005). Even though many people, and certainly most social scientists, are aware of the presence of automatic processing, snap judgments, and appearance-based trait inferences, the results of the research reviewed by Olivola and Todorov (2010) are stunning: rapid judgments of trait competence based on the very thinnest slices of social information predict outcomes of actual political elections! This should be particularly troubling for political scientists and others who care about the quality of our electoral process (and of elected officials), but it has even broader implications for the selection of persons of authority in other walks of life, including workplace supervisors, executives, and other types of leaders.

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A key issue is what underlies the finding that automatic judgments of competence from facial characteristics can presumably influence election outcomes. It is our assertion that it is the result of evolutionary adaptive (and thus genetically-based) perceptual processes that are reinforced by automatic cognitive associations learned from the environment. They reflect the primary, very fast assessment we make of each new face that becomes relevant to us in our surroundings. Unfortunately, when such primary judgments are used to make decisions with real-world implications—decisions that should be based on rational assessment of as much information as possible—such automatic perceptual judgments are not adaptive and are by definition highly superficial and based on peripheral information that may have no relevance to complex, rational, thoughtful judgments (Fiske and Taylor 1991; Petty and Wegener 1998). We argue here that the current results are reflective of perceptually primary judgments of *relative* competence based on facial characteristics and expressions that indicate strength/dominance and approachability/trust. We also propose that links between such perceptions and real voter behavior are highly dependent on voter knowledge and self-involvement, with “swing” and uninformed votes more likely to be based on such perceptions; and that although such primary perceptions are likely to influence both elaborative evaluations of complex competence information and emotional responses to political candidates, they are not likely to be linked to voting of strongly identified party members.

Evolutionary Roots of Perceived Leadership Competence: Perceptions of Dominance and Trust

As Olivola and Todorov (2010) point out in their excellent review of research, judgments of candidate competence from faces are clearly linked to actual election outcomes (Ambady and Rosenthal 1992; Antonakis and Dalgas 2009; Ballew and Todorov 2007). What is still unclear is what comprises the facial quality of “competence” and how such features are predictive of actual election outcomes. Competence as a human trait or quality is defined as possession of required skill, knowledge, qualification, or capacity (Dictionary.com 2009). How are such complex judgments made based on brief glimpses of static faces? We propose that individuals are not seeing facial characteristics that directly indicate competence in terms of experience, or specific skills, knowledge, or qualifications (including intelligence) when they are asked to pick the more “competent” face. They are similarly not seeing facial characteristics that indicate skills in leadership or in politics. Instead, it seems that such competence judgments are based on a rapid assessment of facial cues indicating two factors: the “strength” of the target, reflected in cues of dominance/threat, and the degree to which one may safely approach/interact with a new person, or cues of “trust/approachability” (Andrew 1963). There is substantial evidence that primary assessments of threat and approachability are common in nonhuman primates (Darwin 1872/1998; Eibl-Eibesfeldt and Pitcairn 1976). These broad assessments give an individual a “gut feeling” about a person’s motives/character—feelings which may then be used to substantiate any particular decision/judgment in that situation (including a judgment of which of two people is the better “leader” or more probable “winner” based on brief glances).

Immediate, even unconscious judgments of threat and social dominance are made in response to particular facial cues (Keating et al. 1981; Spezio et al. 2008). Such judgments are then used to make judgments about social status (Mazur and Stevens 1975). The ability to automatically/very rapidly discern potential threat in new faces would

undoubtedly enhance survival in many kinds of situations. We can especially see how adaptive such a response would be in more primitive times. Such abilities may not be most effective in many “modern” situations where success is maximized by the ability to make an unbiased, fair, complex social judgment, but are especially effective in potentially dangerous situations (e.g., perceiving threat in the face of a stranger at your back door). Interpersonally dangerous situations are made less frequent because of our altering of the natural environment, but when they occur they are likely to have consequences that are immediate, negative, and important for basic survival. In these kinds of situations, whether one’s immediate judgment of threat is accurate or not is irrelevant; the point is survival, not accuracy, and retreat from a potential threat that is very quickly recognized in a face is not a bad strategy most of the time. The research review by Olivola and Todorov suggests that we also rely on salient facial cues and automatic or low-effort assessments of dominance and social status in making commensurately low-effort judgments about political skills/abilities/motivations; relative judgments about leadership capabilities or their potential based on “gut” emotions that are hard to ignore.

We see use of specific facial cues in communicating dominance/submission in the social behavior of other primates (Chevalier-Skolnikoff 1973). Chimpanzee groups, for example, are usually socially organized around an alpha male—a singular male who has much greater access to resources than other males, including fertile females (Goodall 1988). Alpha chimps exhibit “dominance displays,” including facial expressions that involve lowered eyebrows (Andrew 1963); chimps also show their strength and intelligence, through body movement and manipulation of heavy objects (Goodall 1988). Chimpanzees who quickly recognize and respond to threatening facial cues are more likely to survive and pass on their adaptive ability to rapidly, automatically assess threat from others.

Among primitive humans, who lived in societies not governed by formal laws and regulations (very recent events in human history), creatures with greater strength are clearly threatening. At a very basic level, making rapid assessments of threat involves a focus on indicators of physical strength, including size, maturity, and masculine rather than feminine characteristics (Chiao et al. 2008; Keating et al. 1981). Facial indicators of dominance are also associated with judgments of physical strength (McArthur and Apatow 1983–1984). Facial features associated with strength and dominance include thinner lips, broad chins, and a receding hairline; facial gestures associated with judgments of greater social dominance, including lowered eyebrows and not smiling (Keating et al. 1981). Conversely, facial features associated with weakness are “baby-faced” features, including larger eyes, smaller chins, and a softer, rounder face (McArthur and Apatow).

What are the facial characteristics and expressions that we consider here in making judgments of “competence?” The research reviewed by Olivola and Todorov and their own findings suggest that several structural and expressive features of faces are associated with judgments of competence. In their examination of computer-generated faces, Olivola and Todorov documented more positive competence judgments associated with greater jaw angularity and closeness of eyes and eyebrows, and decreased facial roundness. Such physical features are most common among young to middle adult aged men, and are physical features associated with masculinity (McArthur and Apatow 1983–1984; Senior et al. 1999). Competence judgments in the current study are also associated with judgments of greater maturity and less baby-facedness. All of these features are masculine facial features; they are common to adult men (Perrett et al. 1998). They are also all facial characteristics that previous research indicates are associated with social dominance and status.

Immaturity and babyfaced features are associated with physical weakness (McArthur and Apatow 1983–1984) and are also seen as “feminine” qualities because women are

physically weaker than men on average (Miller et al. 1993). Baby-facedness is associated with judgments of femininity (Perrett et al. 1998), with women who have “masculine” characteristics (such as high achievement) seen as more physically masculine than women in more feminine roles with more “sex appropriate” accomplishments (Gerbner 1984). Sex differences also come into play as women appear more babyfaced and are consequently judged as more approachable and warm than men (Chiao et al. 2008). These are traits that are predictive of positive judgments, independent of competence, including hypothetical and actual votes in the Olivola and Todorov study. However, feminine facial features are also associated with judgments of low competence and low power (Chiao et al. 2008; Friedman and Zebrowitz 1992), which make judgments of approachability and trust complex and multifaceted. Physical attractiveness is also important in judgments of approachability, associated with increased impressions of warmth and agreeableness (Zuckerman et al. 1995). The findings of Olivola and Todorov suggest that trust judgments (of both attractiveness and babyfacedness) are somewhat independent of strength/dominance determinants in judgments of men’s competence (i.e., it’s good for a man to be approachable as long as he is also strong), but interrelated with strength/dominance determinants in judgments of women’s competence (women who are perceived as strong are seen as less approachable; Heilman 2001). Both strength/dominance and approachability/trust are features immediately perceived (accurately or inaccurately) from facial characteristics/expressions and considering these in judgments of competence corresponds with personality traits identified as components of competence, including trustworthiness, leadership, qualification, experience, and “shares [the respondent’s] concerns” (Banducci et al. 2008). It seems a moderate amount of trust/approachability is best; too little and the face is scary, too much and the face is weak and baby-like. “Gut feelings” of strength and trust from single glances are interrelated, and likely responsible for major differences in judgments about male and female candidates—especially *relative* judgments.

Characteristics implicitly associated with physical strength suggest “expertise” or “ability;” the wherewithal, courage, and determination to get the job done. These are also clearly features that are more strongly associated with social ideas of masculinity and are traits that reflect action (Williams and Best 1990). A weak, small chin suggests passivity, dependence, baby-like behaviors, and clearly rapid, relative judgments of competence are influenced by perception of these facial qualities. It seems that even a well-informed voter who is trying to make a choice based on an objective evaluation of expertise and qualifications may feel emotionally drawn to a vote based on an implicit perception of strength, perhaps without awareness.

Social Psychological and Methodological Issues in Trait Inferences in Voting Studies

Our instant emotional reactions to facial qualities also inevitably influence evaluations of subsequent information about the individual behind the face. Facial cues and person perception involve halo effects, where our instant reaction (positive, negative, neutral) to a face colors the processing and interpretation of all subsequent information about the person (Fiske and Taylor 1991). Research on attitude change indicates that such a positive (or negative) bias based on appearance is most likely to overtly bias information processing when the person is not strongly motivated to process to begin with (Petty and Wegener 1998). Concerning making relative choices between two candidates, a voter who is not really involved in the election enough to carefully process information may make an

overall judgment that results from a positive bias triggered by an attractive appearance or a strong face; even if they are presented with information, including newspaper articles, persuasive arguments and so on. If they don't feel involved, their shallow processing is easily swayed by appearance factors ("peripheral" cues). If voters also elaborate information, that elaboration may be biased by the primary ("gut") feelings of "positive/negative" that they associate with different facial qualities.

To be rather simplistic, that is what is happening here, with the Olivola and Todorov findings and other findings indicating that single glances predict real election outcomes. The lab participants are making immediate perceptual judgments based on facial characteristics associated with strength and dominance, and to a lesser degree, independent of competence judgments, approachability and trust (with approachability working positively in "strong" men's favor). They select the one candidate who has more of these qualities compared to the other. How is it that these results reflect real votes? First, some voters must be very similar to the lab participants in choosing their relative winner—their relative leader. They vote based on relative candidate appearances of competence based on the same facial characteristics (and other surface cues). The fact that such a choice is relative is also extremely important. If one candidate is clearly more competent-appearing than the other, he/she is likely to win by a wider margin in the lab. In the real world, the impact of such a clear difference in facial competence will vary depending on how involved the voters are. If the voters are not involved, even if they are informed, their decisions are likely to reflect those of lab participants; the very clearly competent-appearing candidate will win by a wide margin, receiving votes from the totally uninformed and the informed as well (whose information evaluation is biased in favor of the winner). If the two candidates are more similar in appearance of competence, votes by lab participants and uninvolved voters will still be similar but the results will be closer, with less difference in votes between the two candidates from these sources.

When voters become involved, for whatever reason (because they are highly identified with a party, because the election is controversial or high-profile, because they are especially concerned with environmental issues), everything changes, and facial characteristics are much less likely to influence actual votes. Although self-involvement does increase motivation to seek out and carefully process information about one's preferred candidate (Petty and Wegener 1998; Sherif and Cantril 1947), the highly involved voter does not necessarily make a highly informed vote or a vote based on accurate knowledge. Some voters may be very strongly biased in favor of one candidate merely because they feel very strongly identified with their party; they favor the candidate regardless of his or her subjective and objective qualities, characteristics, and facial features. Social identity concerns dictate that the strongly identified party member promote positive group outcomes, which are directly related to individual feelings of self-esteem (Tajfel 1982). Very strongly identified party members may show unconditional positive regard for their party's candidates, regardless of negative or damaging information they may have received (Riggio 2008a). On the other hand, other voters may become more involved as they process more information. They may come to recognize the importance of such a choice to themselves and their communities and try to make the most objective decision possible, becoming more involved in the outcome of the decision and making careful, reasoned decisions that have little to do with facial characteristics.

Whether the decision is thoughtful or not, facial characteristics are less likely to influence the votes of highly involved voters, and the votes of lab participants are not predictive of these votes. As an election becomes more controversial and more contentious, with greater voter involvement, the choices of lab participants are less likely to reflect the

outcome of the election (i.e., as the vote margin decreases, with less difference in votes for the two candidates, single glance relative competence judgments are less predictive of election outcomes). We are not suggesting that a candidate's or leader's appearance is not important to how he or she is evaluated by a particular party or group. On the contrary, appearance factors, including facial characteristics, are very likely to influence how most people process and interpret information about any particular candidate, including people who are highly identified with a specific party, position, or passion. However, even if a candidate appears weak or untrustworthy, the true believer follows the party line. Estimates suggest that approximately 50% of eligible U.S. voters (at least in Presidential elections) vote straight party lines, with another 25% not voting at all (Kaufmann et al. 2008). That means that about one-fourth of the voting population is regularly composed of "swing voters" who could be swayed by the physiognomic or behavioral first impressions of candidates. The results of these studies are dramatic when one considers their support of social cognitive theory and the human tendency (and/or genetically-influenced compulsion) to rely on heuristic ("instinctive") cognitive processes, even for our most important decisions as citizens.

Implications and Conclusions

These voting studies are troubling for political scientists (and others) who have faith in the electoral process. But the same processes—automatic trait inferences based on limited physical information—also operate in the selection of employees and leaders in work and organizational settings. Snap judgments, halo effects, and the use of stereotypes all contribute to the inability to use valid information about competencies to select employees and leaders (Arvey and Campion 1982; Riggio 2008b).

Olivola and Todorov suggest that we need to change our immediate perceptions—that we can somehow alter our genetically-based perceptual system. We argue that not only is this virtually impossible, it is not necessary. What we need to change is the use of our conscious minds and our ability to control our perception and thought. First, we need to increase motivation to process. We need to promote the idea of "habitual skepticism," the importance of individual critical thought for making important decisions; and we need to promote positive outcomes of effortful thought (starting with higher quality, more knowledgeable individual decisions, ending with a better society as a whole). Second, we need to increase motivation to consciously control thought, including person perception. By increasing meta-knowledge about immediate perceptions based on physical features and how such perceptions bias our social behavior, we may be able to train individuals to avoid the cognitive pitfalls and shortcuts associated with low-quality and inaccurate social judgments. Selection of leaders in politics and elsewhere need to be made on the basis of actual competence, rather than automatic perceptions of strength and kindness.

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