

Original Article

Evolution, Appearance, and Occupational Success

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Abstract: Visual characteristics, including facial appearance, are thought to play an important role in a variety of judgments and decisions that have real occupational outcomes in many settings. Indeed, there is growing evidence suggesting that appearance influences hiring decisions and even election results. For example, attractive individuals are more likely to be hired, taller men earn more, and the facial appearance of candidates has been linked to real election outcomes. In this article, we review evidence linking physical appearance to occupational success and evaluate the hypothesis that appearance based biases are consistent with predictions based on evolutionary theories of coalition formation and leadership choice. We discuss why appearance based effects are so pervasive, addressing ideas about a “kernel of truth” in attributions and about coalitional psychology. We additionally highlight that appearance may be differently related to success at work according to the types of job or task involved. For example, leaders may be chosen because the characteristics they possess are seen as best suited to lead in particular situations. During a time of war, a dominant-appearing leader may inspire confidence and intimidate enemies while during peace-time, when negotiation and diplomacy are needed, interpersonal skills may outweigh the value of a dominant leader. In line with these ideas, masculine-faced leaders are favored in war-time scenarios while feminine-faced leaders are favored in peace-time scenarios. We suggest that such environment or task specific competencies may be prevalent during selection processes, whereby individuals whose appearance best matches perceived task competences are most likely selected, and propose the general term “task-congruent selection” to describe these effects. Overall, our review highlights how potentially adaptive biases could influence choices in the work place. With respect to certain biases, understanding their origin and current prevalence is important in order to potentially reduce discrimination in the work place.

Keywords: applied evolutionary psychology, equality, human behavior, presidents, elections, lookism

Introduction

Visual characteristics, including facial appearance, are thought to play an important role in a variety of judgments and decisions that have occupational outcomes in various settings. Indeed, there is growing evidence suggesting that appearance influences hiring decisions and even election results. In this review we discuss the impact of several aspects of appearance: height, attractiveness, facial appearance, and clothing. Each of these aspects has links to perceived and real outcomes in terms of performance or selection. We also discuss why appearance based effects are pervasive, examining research suggesting a kernel of truth in attributions, as well as discussing how these findings might fit with a coalitional psychology in humans. Finally, we turn to how the effects of physical appearance in occupational settings may be applied. The first aspect of physical appearance we will look at is height.

Sources of Appearance-Based Bias

Height

Height and body build are sexually dimorphic, with men being taller than women. Many studies suggest a positive relationship between tallness and a variety of positive traits, most prominently in men. In terms of expectation, height influences perceived personality such that taller men and women are ascribed more positive personality traits (Jackson and Ervin, 1992). In football, taller referees are seen as more authoritative (Stulp et al., 2012). While greater height is a male trait, some positive traits are also ascribed to tall women. In a recent study, for example, tall women were rated as more intelligent, affluent, assertive, and ambitious than shorter women (Chu and Geary, 2005). It is notable that while generally positive, some traits like assertiveness and ambitiousness do not necessarily indicate a prosocial attitude, and indeed, all of these traits may be particularly relevant to workplace success rather than expectations of positive interpersonal encounters in other contexts.

Studies may suggest that tallness is a positive trait in employment but several studies additionally suggest that height is also linked to actual career success being, for example, positively related to income ($\beta = .26$) controlling for sex, age, and weight (Judge and Cable, 2004). Such effects hold across different cultures and contexts with taller men and women earning more in urban Brazil (Thomas and Strauss, 1997) and taller coalmine workers in India earning more than shorter individuals (Dinda et al., 2006).

The power of height can also be seen in the selection of US presidents. Table 1 shows the heights of the winners and losers of US presidential elections. Examining all elections, the taller candidate won 60% of the time, although this is not statistically significant ($X^2(1) = 2.28, p = .113$). Restricting analysis to more recent times, when print media and photographs of candidates would have been more likely to have been circulated (the first printed photograph in a newspaper in the US was in 1888 and photojournalism became prominent from the 1930s onward), reveals that post 1900 (1900-2008) the taller candidate won 81% of the time, $X^2(1) = 9.85, p = .002$. The percentage is relatively stable and is seen almost unchanged in post 1950 elections (1950-2008) where the taller candidate

Appearance and success

won 79% of the time, $\chi^2(1) = 4.57, p = .033$. Height then, and the visual appearance of height, appears linked to selection success (e.g., presidential elections) and career success (as measured by earnings).

Table 1. Heights of winners and losers of US presidential elections, 1789-2008 (Data from: http://en.wikipedia.org/wiki/Heights_of_Presidents_of_the_United_States_and_presidential_candidates)

Election Year	Winner	Winner height (ft, in)	Winner height (cm)	Main opponent(s)	Opponent height (ft, in)	Opponent height (cm)	Taller wins?
2008	Barack Obama	6 ft 1 in	185	John McCain	5 ft 9 in	175	yes
2004	George W. Bush	5 ft 11½ in	182	John Kerry	6 ft 4 in	193	no
2000	George W. Bush	5 ft 11½ in	182	Al Gore ¹	6 ft 1 in	185	yes
1996	Bill Clinton	6 ft 2 in	188	Bob Dole	6 ft 1½ in	187	yes
1992	Bill Clinton	6 ft 2 in	188	George H.W. Bush	6 ft 2 in	188	equal
1988	George H.W. Bush	6 ft 2 in	188	Michael Dukakis	5 ft 8 in	173	yes
1984	Ronald Reagan	6 ft 1 in	185	Walter Mondale	5 ft 11 in	180	yes
1980	Ronald Reagan	6 ft 1 in	185	Jimmy Carter	5 ft 9½ in	177	yes
1976	Jimmy Carter	5 ft 9½ in	177	Gerald Ford	6 ft 0 in	183	no
1972	Richard Nixon	5 ft 11½ in	182	George McGovern	6 ft 1 in	185	no
1968	Richard Nixon	5 ft 11½ in	182	Hubert Humphrey	5 ft 11 in	180	yes
1964	Lyndon Johnson	6 ft 3½ in	192	Barry Goldwater	5 ft 11 in	180	yes
1960	John F. Kennedy	6 ft 0 in	183	Richard Nixon	5 ft 11½ in	182	yes
1956	Dwight D. Eisenhower	5 ft 10½ in	179	Adlai Stevenson	5 ft 10 in	178	yes
1952	Dwight D. Eisenhower	5 ft 10½ in	179	Adlai Stevenson	5 ft 10 in	178	yes
1948	Harry S. Truman	5 ft 9 in	175	Thomas Dewey	5 ft 8 in	173	yes
1944	Franklin D. Roosevelt	6 ft 2 in	188	Thomas Dewey	5 ft 8 in	173	yes
1940	Franklin D. Roosevelt	6 ft 2 in	188	Wendell Wilkie	6 ft 2 in	188	equal
1936	Franklin D. Roosevelt	6 ft 2 in	188	Alfred Landon	5 ft 11 in	180	yes
1932	Franklin D. Roosevelt	6 ft 2 in	188	Herbert Hoover	5 ft 11½ in	182	yes
1928	Herbert Hoover	5 ft 11½ in	182	Al Smith	5 ft 11 in	180	yes
1924	Calvin Coolidge	5 ft 10 in	178	John W. Davis	5 ft 11 in	180	no
1920	Warren G. Harding	6 ft 0 in	183	James M. Cox	5 ft 6 in	168	yes
1916	Woodrow Wilson	5 ft 11 in	180	Charles Evans Hughes	5 ft 10 in	178	yes
				William Howard Taft	5 ft 11½ in	182	no
1912	Woodrow Wilson	5 ft 11 in	180	Theodore Roosevelt	5 ft 10 in	178	yes
1908	William Howard Taft	5 ft 11½ in	182	William Jennings Bryan	5 ft 11 in	180	yes
1904	Theodore Roosevelt	5 ft 10 in	178	Alton B. Parker	5 ft 9 in	175	yes
1900	William McKinley	5 ft 7 in	170	William Jennings Bryan	5 ft 11 in	180	no
1896	William McKinley	5 ft 7 in	170	William Jennings Bryan	5 ft 11 in	180	no
1892	Grover Cleveland	5 ft 11 in	180	Benjamin Harrison	5 ft 6 in	168	yes
1888	Benjamin Harrison	5 ft 6 in	168	Grover Cleveland ¹	5 ft 11 in	180	yes
1884	Grover Cleveland	5 ft 11 in	180	James G. Blaine	5 ft 11 in	180	no
1880	James A. Garfield	6 ft 0 in	183	Winfield Hancock	6 ft 1½ in	187	no
1876	Rutherford B. Hayes	5 ft 8½ in	174	Samuel Tilden ¹	5 ft 10 in	178	yes
1872	Ulysses S. Grant	5 ft 8 in	173	Horace Greeley	5 ft 10 in	178	no
1868	Ulysses S. Grant	5 ft 8 in	173	Horatio Seymour			Height unavailable
1864	Abraham Lincoln	6 ft 4 in	193	George B. McClellan	5 ft 8 in	173	yes
				John C. Breckinridge	6 ft 2 in		yes
1860	Abraham Lincoln	6 ft 4 in	193	Stephen A. Douglas	5 ft 4 in	163	yes
				Millard Fillmore	5 ft 9 in	175	yes
1856	James Buchanan	6 ft 0 in	183	John C. Frémont	5 ft 9 in	175	no
1852	Franklin Pierce	5 ft 10 in	178	Winfield Scott	6 ft 5 in	196	no
1848	Zachary Taylor	5 ft 8 in	173	Lewis Cass	5 ft 8½ in	174	no
1844	James K. Polk	5 ft 8 in	173	Henry Clay	6 ft 1 in	185	no
1840	William Henry Harrison	5 ft 8 in	173	Martin Van Buren	5 ft 6 in	168	yes
				Hugh Lawson White	5 ft 11 in	180	no
1836	Martin Van Buren	5 ft 6 in	168	William Henry Harrison	5 ft 8 in	173	no
1832	Andrew Jackson	6 ft 1 in	185	Henry Clay	6 ft 1 in	185	no
1828	Andrew Jackson	6 ft 1 in	185	John Quincy Adams	5 ft 7½ in	171	yes
				William H. Crawford	6 ft 3 in	191	no
				Andrew Jackson ¹	6 ft 1 in	185	yes
1824	John Quincy Adams	5 ft 7½ in	171	Henry Clay	6 ft 1 in	185	no
1820	James Monroe	6 ft 0 in	183				unopposed
1816	James Monroe	6 ft 0 in	183	Rufus King			Height unavailable
1812	James Madison	5 ft 4 in	163	De Witt Clinton	6 ft 3 in	191	no
1808	James Madison	5 ft 4 in	163	Charles C. Pinckney			Height unavailable
1804	Thomas Jefferson	6 ft 2½ in	189	Charles C. Pinckney			Height unavailable
1800	Thomas Jefferson	6 ft 2½ in	189	John Adams	5 ft 7 in	170	yes
1796	John Adams	5 ft 7 in	170	Thomas Jefferson	6 ft 2½ in	189	no
1792	George Washington	6 ft 2 in	188				unopposed
1789	George Washington	6 ft 2 in	188				unopposed

¹ Lost the Electoral Vote, but received more popular votes. Counted as the winner here.

Attractiveness

Height is related to attractiveness in men, with taller men having an advantage in being selected for dates (Shepperd and Strathman, 1989; Hensley, 1994), attracting more attractive partners (Feingold, 1982), and producing more offspring (Pawłowski et al., 2000). In this way, some of the effects of height discussed above may potentially be attributable to attractiveness. Being attractive clearly has its own advantages. It has long been noted that there exists a "What is beautiful is good" stereotype (Dion, Berscheid, and Walster, 1972), whereby attractive individuals are perceived to possess a variety of positive personality attributions. For example in Dion et al.'s study, attractive individuals were thought to be able to achieve more prestigious occupations, be more competent spouses with happier marriages, and have better prospects for personal fulfillment. There is a wealth of studies examining this attractiveness stereotype, and the effect of beauty on positive personality attribution can be readily seen using computer-generated composite images (see Figure 1). These studies mainly demonstrate that attractive people are seen in a positive light for a wide range of attributes compared to unattractive people (although some negative attributes, such as vanity, do get attributed to attractive individuals, e.g., Dermer and Thiel, 1975).

Of course people do not just say nice things about attractive people—they also like attractive individuals. Attractive people have more dates than less attractive people (Berscheid, Dion, Walster, and Walster, 1971) and Walster, Aronson, Abrahams, and Rottman (1966) found that after random pairing for a date at a dance, the main determinant of whether participants would like to date their partner again was the partner's (independently rated) physical attractiveness. In a more ecologically valid setting, the same result has been found using real dating frequencies from a computer dating agency, with independently rated attractiveness being the best predictor of those selected most often by others (Riggio and Woll, 1984). Feingold (1992) reports that, for both men and women, attractive individuals report more satisfying and more pleasurable interactions with others compared with less attractive individuals. There are other consequences, too; for example, attractiveness can influence judgments about the seriousness of committed crimes, with attractive individuals being perceived as less culpable of violent crimes (Sigall and Ostrove, 1975). This effect is seen outside the laboratory in studies showing that attractive individuals pay lower bail (Downs and Lyons, 1991).

This leads us to the economic consequences of attractiveness. Physical attractiveness appears to be a major asset in sexual exchange. Beauty is associated with upward economic mobility, especially for females, and these findings likely reflect marrying up in terms of socioeconomic status, in which wealthy individuals acquire beautiful partners (Elder, 1969; Holmes and Hatch, 1938). In modern society, women can and still do appear to use beauty to attract wealthy male partners. Wealthy older men associate with young beautiful women and this can be seen in high profile examples such as Hugh Hefner and Donald Trump. In mock job interviews, attractive people are more likely to be hired than less attractive individuals (Cash and Kilcullen, 1985) and the same pattern holds true in real interviews (Marlowe et al., 1996; Chiu and Babcock, 2002). Clearly then, attractiveness is a major asset in life and also appears to influence opportunities in the work place.

Figure 1. Composite images of celebrities (left) and students (right)



Facial Appearance

We have already discussed the impact of facial attractiveness and here we turn to other aspects of facial appearance. One important factor is facial dominance. The expression and physiognomic features associated with dominance are agreed upon cross-culturally (Keating et al., 1981a,b). Dominant appearance is related to occupational status in certain settings. Facial dominance of the graduates from the West Point Military Academy in 1950 predicted their final rank at the end of their careers (Mazur et al., 1984). Face traits of leaders of companies also appear related to the success of the company. At the perceptual level, perceived power (combining ratings of competence, dominance, and facial maturity) of CEO's has been found to positively predict company profits (Rule and Ambady, 2008). One study has shown that the facial width-to-height ratio (having wider faces, relative to facial height) of a company's male CEOs is positively correlated with its financial success (Wong et al., 2011). This ratio is itself related to perceptions of aggression, suggesting that a company with a more aggressive-looking CEO is more profitable than one with a less aggressive-looking CEO. Why this may be true is a question we will return to later.

Aside from dominance and traits associated with aggression, other aspects of facial appearance have been linked to occupational success. Again, we turn to politics. Previous studies have examined the role of visual appearance in voting for national leaders, an arena where it might be expected that physical appearance would matter little given the wealth of information available about the participants, their parties and their policies. It has been

suggested that facial appearance may influence voting decisions in elections, particularly since the famous televised debates between Kennedy and Nixon. In one debate, those with visual information (from television) thought that Kennedy had won the debate, while those with only auditory information (from radio) thought that Nixon had won (Kraus 1988). This suggests that visual appearance may affect what individuals think about politicians, regardless of policy and good argument. Indeed, in line with many positive attributions to attractive individuals (Dion et al., 1972), one study shows that attractive political candidates are evaluated more positively than unattractive individuals (Budesheim and Depaola, 1994). As the individual traits of politicians become increasingly important (Caprara and Zimbardo, 2004), and with politicians' increasing use of visual media, we might expect that the appearance of candidates' faces will be increasingly likely to play a critical role in voter choice.

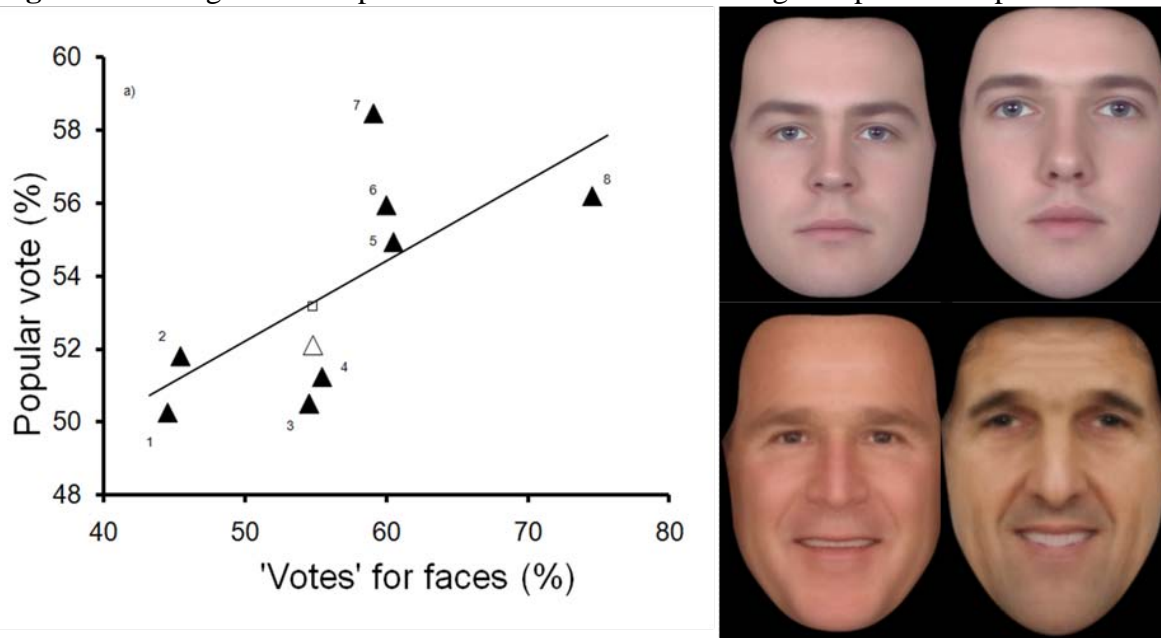
In line with such reasoning, it has been demonstrated that, in a large sample of head shot images of politicians, ratings of competence are related to the outcome of actual US congressional elections (Todorov et al., 2005). This finding links physical appearance to election outcomes, highlighting that stereotypes may indeed guide voting behavior. A similar finding based on 11 pairs of photographs from newspapers has also been shown (Martin, 1978). As faces are important social stimuli, it is likely that facial information could have played a role in competence judgments, though the images used by Todorov et al. and Martin also contain other information that is linked to social attributions, such as clothing (Forsythe, 1990), expression (Kraut and Johnston, 1979), and head posture (Campbell et al., 1996). A further study has presented evidence that elections can be predicted by individuals voting based on facial shape alone, using presidential and prime ministerial elections from several nations (Little et al., 2007; see Figure 2). It also appears that cues to election success based on facial appearance apply at a young age, in that children prefer election winners over loser to be "captain of their boat" (Antonakis and Dalgas, 2009). All of these findings link facial appearance to actual election outcomes, highlighting the power of faces in occupational settings at least at the level of selection.

Clothing

While height, attractiveness, and other aspects of facial appearance are not readily changeable, clothing can be altered with ease. Certainly what we wear has an influence on the characteristics that others infer and impacts on how others behave towards us. One example is in the arena of sporting success. Hill and Barton (2005) found an effect of clothing color on success in four combat sports at the 2004 Olympic Games. Competitors were randomly allocated either blue or red outfits, and contests were more often won by the competitor in red. Similarly in football, the color red is associated with team success as well as success and confidence in penalty-takers and goalkeepers (see Wiedemann et al., 2012 for review). Hill and Barton (2005) attribute success associated with red clothing to either increased confidence of the wearers or reduced confidence in their opponents, due to an evolutionary association between dominance and the color red (Stephen et al., 2012; but see Rowe et al., 2005 for another interpretation). Similarly, black uniforms bias referee's perceptions of a team's aggressiveness in ice hockey and American football (Frank and Gilovich, 1988). Beyond sporting contests, red and black clothing can increase perception

of attractiveness, by influencing both the clothing wearer and perceivers (Roberts et al., 2010), and women's increased attraction to men in red is linked to perceptions of high status (Elliot et al., 2010). Finally, clothing choice is well-known to influence social perceptions, including of dominance and competence, in a variety of contexts and especially at first impression (Davis and Lennon, 1988; Thelwell et al., 2010). For example, women wearing a jacket, which is associated with men's clothing more than women's, were perceived by both men and women as being more expert and powerful (Temple and Loewen, 1993).

Figure 2. Voting for faces predicts real election votes using computer manipulated faces.



Note: Left: graph showing votes for winner's faces out of a pair ("which person would you vote for?") versus real votes (as % of the popular vote in the actual election). Right Top: example transformed images used in the study based on the difference between the two composites (plus Bush, plus Kerry). Right Bottom: original composites of Bush and Kerry used to make the computer manipulated faces above. See Little et al. (2007) for more details.

Other Traits

The list above is, of course, not exhaustive. There are many other aspects of appearance that may influence occupational success including traits related to facial appearance, such as age, physical strength, fluctuating asymmetry, baldness, beardedness, wearing of spectacles, ethnicity and other traits, such as body weight and gait which are readily observable. While we do not review each of these aspects here, there is evidence that some of these factors can influence attributions and even selection. For example, older faces are more likely to be selected as a leader during intergroup conflict in hypothetical voting decisions (Spisak, 2012).

Understanding Why Appearance Matters

The studies reviewed so far suggest potentially powerful effects of a person's appearance on their occupational success in a variety of settings. The two most likely routes to these relationships lie in 1) selection processes and 2) job performance. Selection processes allow the opportunity for bias but the question arises about why such biases exist in the first place. It may initially appear odd that appearance may affect actual performance, although performance in some arenas may be intimately tied to how people react to a particular person. For example, for a salesperson, one might expect that people would be more likely to buy from an individual if they are positively inclined towards them and indeed studies have shown that attractiveness is positively associated with performance as a salesperson (Ahearne et al., 1999). There is another link between appearance and performance: appearance may predict ability in some arenas. This leads us to discuss studies that suggest a kernel of truth in perception.

The studies reviewed above suggest that height may have a positive effect on occupational outcome; studies also suggest taller individuals are healthier within the normal range. Being relatively short in adult life is associated with lower self-reported health-related quality of life (Christensen et al., 2007) and, while there is no association with female height, short men are at increased risk of coronary heart disease (Kee et al., 1997). Tallness and intellectual ability are also found to correlate positively. For example, short individuals had intelligence test scores and educational levels well below tall individuals, concurring with overall correlations of height with intelligence test scores and with educational level (Teasdale et al., 1991). Other studies have shown that men's height at age 18 is positively associated with obtaining a higher education (Magnusson et al., 2006). Together these studies are suggestive that taller individuals may on average be healthier and more intelligent than their shorter peers.

While there appears limited accuracy in terms of positive personality attribution, there are studies that suggest attractive individuals are more sociable than their non-attractive peers (see Langlois et al., 2000, for a meta-analytic review). Like height, however, there does seem to be a link between attractiveness and health, with attractive individuals having longer lifespans (Henderson and Anglin, 2003) and more diverse genes that code for immunity (Roberts et al., 2005). Perhaps part of the bias towards attractive individuals reflects selection for health.

Masculinity and baby-facedness in faces are also associated with real behavior. There is evidence that baby-faced individuals, individuals whose face more resembles an infant's face (Zebrowitz and Montepare, 1992), do to some extent self-report that they have the personality characteristics others attribute to them. Berry and Brownlow (1989) found that ratings of male babyishness were positively correlated with the face owner's self-reported approachability and warmth, but negatively related to self-reported aggression. For female faces, babyishness was associated with low self-reported levels of physical power and assertiveness. Indeed, facial masculinity, linked to facial dominance (Perrett et al., 1998), positively relates to testosterone level (Penton-Voak and Chen, 2004) and physical strength (Fink et al., 2007), suggesting a link to actual dominant behavior (Mazur and Booth, 1998) in dominant faced individuals. Indeed, individuals are more likely to follow

the gaze of masculine faced men and women compared to feminine faced individuals (Jones et al., 2010). In line with these ideas, and with the findings that this ratio in CEO's predicts company profits, the facial width-to-height ratio have been associated with perceived aggression, trait dominance using questionnaires, and aggression in a naturalistic setting (Carre and McCormick, 2008; Carre et al., 2009; Carre et al., 2010).

Finally, there also appears to be some facial attributes that are associated with certain political affiliations. One study has shown that people are able to accurately guess the political inclinations (Democrat or Republican) of U.S. Senate candidates and college students (Rule and Ambady, 2010). Perceptions of power appear to underlie the correct assessment, with Republican faces perceived as more powerful than Democrat faces. These findings are intriguing and suggestive that some of the selection advantage based on facial appearance in real elections may be due to how well a politician's face is in line with his/her party's ideals. This may be highlighted in selection as a candidate by the party and also in voting behavior during elections.

Given some accuracy, and the positive nature of many of the attributions above, we can then predict that adaptive biases may be in place to select individuals with positive traits. Bias based on height, attractiveness, and other aspects of facial appearance may be adaptive. For some jobs, the pressure is clear, but there is a question remaining about why people favor these traits in selection when the trait's association is unlikely to have a real effect on job performance. Of course, accuracy may only be very limited, but people certainly believe that aspects of appearance, such as facial appearance, provide important guides to character (Hassin and Trope, 2000) and so this belief in itself may be enough to favor certain individuals.

Alongside accuracy, in some cases there may also be a mismatch between perception and behavior, a result of so-called self-defeating prophecies in which individuals compensate for expectations by behaving differently from expected. For example, in some studies, baby-faced boys have been found to have greater intellectual achievement and be more prone to delinquency than their more mature faced peers out of line with attribution (Zebrowitz et al., 1998). This may relate to compensatory behavior in other domains, with for example, more baby-faced or feminine faced leaders behaving more dominantly. It is possible that while appearance may matter for initial selection, behavioral traits become more important later, although the relative balance between accurate versus inaccurate perception has yet to be determined.

Coalitional Psychology

The previous section suggested that some attributions may contain a kernel of truth and so it may be adaptive to bias decisions based on such attributions. What is also clear is that many of these effects appear linked to health, dominance, and leadership. Many primate societies are characterized by strict hierarchies in which physical dominance is a prominent determinant (Smuts et al., 1987). Humans, however, are somewhat unusual in that many societies choose their leaders democratically, leaving the potential to select individuals with pro-social skills over more physically dominant individuals. Because of this, it is difficult to predict whether dominance will be favored in all choices. For example,

facial dominance may be linked to selection due to acquiescent or submissive responses by other group members rather than by group assent. In fact, masculine faces not only appear dominant but also untrustworthy (Perrett et al., 1998). Previous research on the evolution of status has distinguished between two forms of status: 1) prestige, which results in freely conferred status and 2) dominance, by which status is acquired forcefully (Henrich and Gil-White, 2001). In examining success in gaining a job and voting behavior we are focusing explicitly on ideas of freely conferred status and, as dominant individuals may be valued under certain conditions, such as in times of intergroup conflict, dominance may in fact result in freely conferred status.

When we consider that individuals may not just be selecting individuals to join their organization, but also their in-group, then the prevalence of bias based on physical traits becomes more apparent. Extensively studied in terms of attractiveness, factors such as health, and recognizing individuals in poor health, are important as a means of avoiding sick individuals and thus contagion (Little et al., 2011). Likewise, poor health, as related to absenteeism and productivity in the workplace, is associated with lost income to employers (Goetzl et al., 2004) and is likely a detriment to many physical tasks involving strength or mobility. Perhaps the favoring of tall, attractive individuals, reflects, in part, the impact of the importance of selecting healthy coalitional partners both in terms of avoiding disease transmission and ensuring that individuals are fit and able to perform specific tasks. In modern environments, these issues may appear less important, but bear a real cost to employers (Goetzl et al., 2004) and physical capabilities/good health were likely much more important to ancestral humans. Alongside health, the studies above suggest that dominance, power, and aggression, also appear to be favored. Actual physical aggression seems unlikely to play a significant role in contemporary occupational settings (at least outside of sport, see Lombardo, 2012); however, selection for such traits could also reflect ancestral pressures. For example, some studies suggest that men, more than women, are sensitive to threat from out-groups and this difference reflects men and women's different roles in inter-group conflict (Van Vugt et al., 2007). Indeed, intergroup conflict was likely a serious issue facing humans across evolutionary time (and remains important given the capacity for war between modern groups). In the past, such conflict would be resolved in physical combat, and in this area, selection of dominant individuals may be adaptive—particularly given that factors such as facial masculinity predict actual strength in men (Fink et al., 2007) and self-rated dominance in women (Quist et al., 2011). Our bias towards dominant and masculine individuals may then partly reflect our desire to have powerful potential warriors on our side and in our in-group. Alongside male responses to conflict, it has also been suggested that women's responses to stress may be more linked to activities involved in promoting safety or maintaining social relationships, or to “tend-or-befriend” (Taylor et al., 2000). Potentially, this may mean that femininity is also valued in groups because of the inherent value in maintaining a nurturing environment for children and building stable social relationships.

The Importance of “Fit” to Task

Physical appearance appears to affect both hypothetical and real leadership choice

and has diverse outcomes on occupational success. One question raised is whether the same traits are valued in all situations. While it is likely that certain traits are important, it is possible that different faces may be associated with different traits that may be more or less important according to current circumstances. For example, we would expect that appearing competent to perform a specific task would lead to increased chances of selection for that task but also that perceived competence will vary across situations. Previous work has indeed highlighted that competencies for specific tasks are important in evaluating leadership abilities (Van Vugt, 2006). Such context-dependent variability in choice is a common feature in other human preference research examining mate choice (Little et al., 2001, 2002; Jones et al., 2005; Roberts and Little, 2008). One study has shown that masculinity in faces is related to voting differently under war and peace-time scenarios (Little et al., 2007). Dominant individuals may be valued under certain conditions, such as in times of intergroup conflict when their physical dominance may prove useful. During a time of war, a dominant-appearing leader may inspire confidence and intimidate enemies. However, dominance may not always be a valued trait in leaders. During peace-time, dominance is likely not to be such a useful trait; when negotiation and diplomacy are needed, interpersonal skills may outweigh the value of a dominant leader. In line with these ideas, it has been demonstrated that masculine-faced leaders are favored in war-time scenarios while feminine-faced leaders are favored in peace-time scenarios (Little et al., 2007). These ideas are in line with earlier ideas of a “contingency model of leadership effectiveness” in which a leader’s effectiveness is based on two main factors: a leader’s specific attributes and a leader’s situational control (Fiedler, 1964). When attributes and situation are congruent, a leader will be most effective (Fiedler, 1964).

Such ideas can be applied to many arenas and perhaps the general biases highlighted earlier will show similar context specific effects as seen in leader choices. For example, in terms of job compatibility, some perceptual traits may be more likely to be selected for in terms of perceived fit. These issues may be highlighted in our view of traditional job roles. Nursing is traditionally an occupation dominated by women, and women are perceived as more caring than men, and these associations could be reflected in a bias against hiring male nurses or could even lead to the perception that male nurses do a poorer job. In terms of leadership and selection of faces with an appearance that is context contingent, such as war-time or peace-time leader selection, previous authors have called these effects “facultative leader choice” (Little et al., 2007), also called a “biosocial contingency model of leadership” by Spisak et al. (2012). In more general terms, we can expect that fit-to-task may well be a general phenomenon for selection processes. We then suggest a more general name for the effects of appearance or behavioral traits leading to context specific choice of particular individuals: “task contingent selection” or “task congruent selection”.

Consequences and Applications

Structural vs Manipulable Features

Given the inherent biases in social judgments outlined in this review it is clear there are real consequences of appearance on occupational success. Most of these relate to what

we might term structural features—those that are relatively fixed and unalterable, such as height and facial appearance. Others are open to manipulation, such as clothing color and style. To the latter group, we might add other culturally laden features which influence social attributions, such as perfume use and choice (Lenochova et al., 2012; Roberts and Havlicek, 2012). The distinction between structural and manipulable features might appear at first sight to be a trivial one, but it may carry direct implications for addressing practical issues arising from these biases. In short, biases arising from structural features, while exerting deep-rooted psychological influences on potential or actual employers, may often be undesirable in terms of avoiding prejudice and ensuring equitable treatment. In contrast, features that are open to manipulation are ‘fair-game’, since they are accessible to all. We briefly expand on these issues below.

Lessons for Selectors

Equality of opportunity in relation to appointment, pay, and promotion is now legally enforced in most countries. Characteristics of employees that are protected by this legislation typically include age, disability, sex, marital status, race, religious beliefs, and sexual orientation, and may also be extended to include gender reassignment, pregnancy and genetic information (see for example, the Equality and Human Rights Commission [UK] and the Equal Employment Opportunity Commission [US]). While the structural attributes we have reviewed above—height, attractiveness, and facial appearance—are generally not protected characteristics in law (although a few states in the US do prohibit discrimination on height/weight unless based on job requirements), a principled extension of this code would sanction discrimination based on any of these attributes. Certainly, few hiring committees would condone any overt discussion of such attributes and while there may be no explicit bias, clearly unconscious implicit biases are at play.

How then might such discrimination be avoided? An important first step would be to limit the amount of information available to shortlisting committees. Photographs of candidates should not be solicited, for instance. At interview, however, all these traits are on display; here, avoiding discrimination due to inherent biases becomes more difficult to enforce. Most institutions have procedural rules governing composition of interview committees, such as mixed sex membership, which may offset some biases. The effect of attractiveness on selection might also be reduced by including committee members who will not interact with the appointee on a day-to-day basis, introducing a degree of disinterest in this attribute. Beyond this, equitable consideration of candidates might be improved by better understanding of them by interviewers through more prolonged interaction, perhaps during training.

Lessons for Candidates

Job applicants, on the other hand, have some opportunity to bias selection in their favor, at least with regard to manipulable traits. First, they might boost their own confidence. For example, perfume use increases the wearer’s confidence and perception of them even by others who do not themselves detect the fragrance (Higuchi et al., 2005; Roberts et al., 2009), while clothing color may similarly affect the wearer’s confidence and attributions by others (even where the perceiver cannot see the color; Roberts et al., 2010).

Second, they might influence the perceiver (the interviewers) more directly. For example, wearing more masculine fragrances influences selection in mock interviews for managerial positions (Sczesny and Stahlberg, 2002, see also Baron, 1983). Clothing that accentuates masculinity may influence perceptions of competence, and a red tie or dress might also trigger inherent psychological biases in interviewers, although such effects have not been explicitly tested in experiments using mock interviews.

We think the potential for such effects have been relatively unexploited, even in the light of evidence. For example, following the finding at the 2004 Olympics that competitors wearing red outcompeted those in blue (Hill and Barton, 2005, described above), the designer Stella McCartney came under criticism¹ when her design for the 2012 Great Britain Olympic team's kit was predominantly blue and marginalized red—in view of the prevalence of these colors in the national flag, she could justifiably have emphasized red, even had she not been more evolutionarily informed. The outfits in the Olympic events analyzed by Hill and Barton (2005) are randomly assigned, but what athletes wear to the event itself, and what they wear while actually competing in other events, could have psychological effects on the wearers and their competitors. Where the margins between winning and losing are so slight, as is also often the case in job interviews, such attention to subtle biases might have disproportionate effects. In a similar vein, shoes with a slightly thicker sole could make a difference, at least for men when matched against competitors of similar height.

Political Candidacy: A Special Case?

So far in this section we have focused on how insights from evolutionary studies might be used by employers to minimize appearance-based discrimination, or be exploited by candidates to their advantage. Earlier, however, we reviewed a growing body of evidence outlining appearance biases in perceptions of politicians and here, at least, interests of selectors and candidates in exploiting such biases may converge. Rightly or wrongly, the appearance of political candidates appears to carry considerable effects on voting behavior. It might be argued that appearances are utterly unconnected to a politician's character, ideals or policies. However, for voters, evidence for a kernel of truth in appearance-based attributions could provide a modicum of substance to judgments of candidates. Furthermore, as we have argued, preferences for political candidates may reflect leadership preferences which were adaptive in our evolutionary past (for more on this and related issues, see Petersen and Aarøe, 2012).

Could political parties apply these insights in terms of selecting party leaders? Appearance probably does already play some role here, because leaders are normally selected from a small number of prominent candidates within the party, who themselves have risen through the ranks and previously won local elections. Furthermore, inasmuch as the party selectors are as susceptible as anyone else to the general adaptive biases we have described, appearance may play a role in the formation of the shortlist or in their actual choice. Finally, and especially in candidacy for national party leaders, the final choice is

¹ <http://www.guardian.co.uk/sport/2012/mar/22/stella-mccartney-team-gb-london-2012>

made against the backdrop of the political landscape (e.g. wartime or peacetime) and perhaps in view of the appearance of the future opponent, the identity of whom may often be known. In such cases, selectors might directly compare their own candidates against the known opponent, even unwittingly, with the same inherent biases that might be evident amongst the electorate. We do not expect that political parties will overtly select candidates based on appearance in this way, nor are we arguing that they should. However, in view of the evidence, we believe that a party that did pay heed to appearance in selection of their candidates might well be more successful in elections.

Conclusions

Appearance has consequences for success in work via selection processes and perceived achievement within a job. These effects may be better understood by examining evolutionary relevant biases in our judgments as well as considering that our biases likely reflect adaptive choices under small group conditions. Such insights can be employed to reduce discrimination in the work place and inform candidates on how to effectively compete for jobs.

Acknowledgements: Anthony Little is supported by the Royal Society. We thank two anonymous reviewers for helpful comments.

Received 3 May 2012; Revision submitted 24 August 2012; Accepted 1 September 2012

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