



Dominance biases in the perception and memory for the faces of powerholders, with consequences for social inferences

Xijing Wang^{a,*}, Ana Guinote^{a,b}, Eva G. Krumhuber^a

^a Department of Experimental Psychology, University College London, United Kingdom

^b Leadership Knowledge Center, Nova School of Business and Economics, Portugal



ARTICLE INFO

Handling editor: Nicholas Rule

Keywords:

Power

Dominance

Attractiveness

Face perception

Memory

Gender

ABSTRACT

A great deal of research has shown that dominant-looking faces are afforded power. In this research, we tested the reverse link. As such, we examined whether knowledge of a target's power would lead to a dominance bias in face perception. Five studies were conducted by applying face morphing techniques to both controlled facial stimuli and faces of powerholders in the real world. Results showed that faces of powerholders were misrecalled (Studies 1A and 1B) and misperceived (Studies 3A and 3B) as more dominant-looking than their powerless counterparts. In addition, their faces were misrecalled as more prototypically dominant in physical appearance than they actually were (Studies 1A, 1B, and 2). Furthermore, enhanced facial dominance affected social inferences, with evaluations such as competence and attractiveness being sensitive to the gender of the target person (Study 3B). Implications for research on power and face perception are discussed.

1. Introduction

Dominance hierarchies are pervasive across social species. They are typically determined by an animal's ability to prevail in agonistic encounters. To avoid costly fighting, primate species have evolved cognitive abilities to detect, respond to, and display signals of dominance (Boehm, 1999; De Waal & Waal, 2007). Humans are no exception. They use appearance to automatically process information concerning the social rank of others. This tendency can be observed in human neural activity (e.g. dorsolateral and medial prefrontal cortex), even when rank related information is irrelevant for the task at hand (Zink et al., 2008). In particular, people use facial observation to make spontaneous inferences regarding a person's tendency to dominate in encounters (Oosterhof & Todorov, 2008).

Considerable evidence points towards the benefits of looking dominant when it comes to power attainment, such that those with more dominant facial features are more likely to be favored as leaders (e.g. Alrajih & Ward, 2014; Mueller & Mazur, 1996; Rule & Ambady, 2008; Spisak, Homan, Grabo, & Van Vugt, 2012). The present research aims to examine the reverse link by testing how knowledge about a target's power affects face perception and memory. We propose that faces of powerholders will be misperceived and misremembered in a biased manner towards dominance. In addition, facial dominance in turn could shape the impressions formed about the personal attributes of powerholders, and some evaluations could be in a gender specific

manner.

1.1. Dominance as the power prototype

Stable hierarchies among peers form in preschool years, based on the ability to prevail in competition for property ownership (Kalish, 2005). As with other species, this ability in humans is initially determined by bodily strength, linked to body size. Therefore, children form symbolic links between bodily force and power. Six- to eight-year-olds anticipate that taller children will dominate in a property ownership conflict (Pietraszewski & Shaw, 2015). Children also regulate their behavior depending on their relative hierarchical position. For example, subordinate children are more pro-social than dominant children (Guinote, 2017; Guinote, Cotzia, Sandhu, & Siwa, 2015). The association between physical dominance and social authority continues into adulthood. High-power has been associated with various forms of nonverbal cues signaling dominance, from physical height (e.g. Judge & Cable, 2004), a low-pitched voice (Klofstad, Anderson, & Peters, 2012) and a wide variation in loudness while speaking (Ko, Sadler, & Galinsky, 2015), to occupying space (Carney, Hall, & LeBeau, 2005). In addition, power also distorts people's visual perception, such that experiencing high- and low-power makes people underestimate and overestimate the physical size of others, respectively (Yap, Mason, & Ames, 2013).

Of most direct relevance to the current study, facial expressions and

* Corresponding author at: Department of Experimental Psychology, University College London, 26 Bedford Way, London WC1H 0AP, United Kingdom.
E-mail address: xijing.wang.13@ucl.ac.uk (X. Wang).

morphology associated with strength and formidability are thought to provide an insight into another's propensity to behave in dominant ways in social encounters (Fink, Neave, & Seydel, 2007; Holzleitner & Perrett, 2016). Inferences based on faces are also used for organizational and societal decisions. People with dominant-looking faces are more likely to be judged as leaders (Spisak et al., 2012), and are believed to possess better leadership skills (Rule & Ambady, 2008). Consequently, they are afforded more power. For example, a cadet's military rank is predicted by how dominant he looks (Mueller & Mazur, 1996). Business leaders in the UK have more dominant face morphology than their age- and sex-matched non-powerful counterparts (Alrajih & Ward, 2014). Furthermore, fWHR (i.e. an index for facial dominance) predicts perceived achievement drive of US presidents (Lewis, Lefevre, & Bates, 2012) and financial success of CEOs in the corporate world (Rule & Ambady, 2008; Wong, Ormiston, & Haselhuhn, 2011). Such evidence consistently suggests that people infer power-related skills from facial appearance. Facial dominance could therefore act as a physical prototype in the perception of powerholders.

1.2. A case for misrepresentations of powerholders' faces

Humans are experts at identifying faces. They can recognize faces effortlessly and automatically in different poses and conditions of occlusion and luminosity (Bruce & Young, 2012). The automatic and efficient manner in which faces are identified has led to a widespread belief that face recognition is reasonably accurate and derives from the use of invariant face structures stored in memory (Tong & Nakayama, 1999). From this perspective, a target's power should not affect how someone is perceived and remembered. However, face perception and memory are more malleable than previously assumed, and are construed and subject to biases (Hugenberg & Sacco, 2008). For instance, when race ambiguous faces are matched with low-status attire (vs. high-status attire), they are more likely to be perceived as Black (Freeman, Penner, Saperstein, Scheutz, & Ambady, 2011). People tend to recognize their own faces as looking more attractive than they really are (Epley & Whitchurch, 2008).

Given the cognitive efficiency of categorization, and the apparent ease with which categories are activated and applied (Allport, 1954), face perception and memory are also subject to the influence of categorical representations about appearance (Hugenberg & Sacco, 2008). That is, social categories of a target's face, for instance gender, race, and age, can elicit *assimilation* effects (aka, *accentuation*) in which the face is perceptually assimilated to a category prototype, affecting how it is perceived and remembered (Corneille, Huart, Becquart, & Brédart, 2004; Hugenberg, Young, Sacco, & Bernstein, 2011). Supportive evidence comes from studies on facial features of race and gender. Specifically, once a target face is categorized as a certain race (e.g. Black), people tend to perceive the face as more prototypical of its race category (Levin & Banaji, 2006; MacLin & Malpass, 2001). The same accentuation effect is also seen in face memory, such that faces are recollected as looking more prototypical of their race and gender category than they actually are (Corneille et al., 2004; Huart, Corneille, & Becquart, 2005).

In this vein, if the prototype of the faces of powerholders entails facial dominance features, people may not only infer power-related skills from faces, as demonstrated in past research, but they may also engage in the reverse inference. That is, from knowledge of the power of the target to biased face perception and memory. Consequently, the faces of powerholders may be viewed and remembered in a distorted manner that is in line with the dominance prototype.

1.3. Social inferences of facial dominance: competence and attractiveness

As aforementioned, if facial dominance is used to infer power related qualities, it could guide perceptions and memory in accordance with a target's power position. Such dominance bias could subsequently

influence social trait inferences about a person. In the present research, we chose to focus on two social attributes that are crucial for the evaluation of leaders and likely to be affected by facial dominance: *perceived* competence and attractiveness (e.g. Olivola & Todorov, 2010; Berggren, Jordahl, & Poutvaara, 2010).

The social dimension of the face evaluation model (Oosterhof & Todorov, 2008; Todorov, Said, Engell, & Oosterhof, 2008) posits that (neutral Caucasian) faces are automatically evaluated in terms of their trustworthiness (signaling targets' intentions) and dominance (signaling targets' capacity to implement those intentions). Such framework also maps onto a two-dimensional circumplex model, bisected by warmth and competence as the underlying dimensions of person perception (e.g. Fiske, Cuddy, Glick, & Xu, 2002). As such, it seems feasible that dominance in the West conveys competence. In fact, it has been argued that facial dominance leads to power affordance because it signals competence (Chen, Jing, & Lee, 2014). If so, it remains unclear whether this would occur equally for both gender groups. Facial dominance is more prevalent among males than females, and is consistent with male but not female stereotypes (Eagly & Karau, 2002; Oosterhof & Todorov, 2008). Given that facial dominance is more frequently found in men than in women, and entails masculine rather than feminine morphology (Boothroyd, Jones, Burt, & Perrett, 2007; Buckingham et al., 2006; Oosterhof & Todorov, 2008), it is possible that facial dominance would have a greater impact on competence attributions of male than female powerholders. Initial supporting evidence from a meta-analysis showed that people expect women to adopt a democratic leadership style (Eagly, Johannesen-Schmidt, & Van Engen, 2003). Also, high-power women who display anger, a trait indicating dominance, are conferred lower status than those who do not (Brescoll & Uhlmann, 2008; Carli, 2001; Livingston, Rosette, & Washington, 2012). Thus, dominance could increase perceived competence for males, but not females.

Furthermore, it has been found that faces which deviate from the group prototype are viewed as less attractive than prototypical faces (Potter & Corneille, 2008). If visual representations of powerholders are in line with a dominance prototype, they will deviate from the female face prototype (i.e. femininity, Boothroyd et al., 2007; Buckingham et al., 2006; Oosterhof & Todorov, 2008), and therefore lower perceived attractiveness in women. Indeed, facial features that make men look dominant or angry result in reduced attractiveness when seen in women (Jaensch et al., 2014; Keating, 1985). Conversely, femininity and babyfacedness, attributes being negatively correlated with dominance, are strong predictors of women's facial attractiveness (Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Perrett et al., 1998). For these reasons, we hypothesized that facial dominance will lead to decreased attractiveness ratings of female powerholders. Such effect should be absent for male powerholders for whom attractiveness and dominance are compatible features.

1.4. The present research

The primary aim of the current research was to test whether the faces of powerholders are subject to the influence of a dominance prototype, such that their faces would be perceived and remembered as more dominant-looking. The secondary aim was to examine how facial dominance and power further affect social trait inferences such as competence and attractiveness, attributes which are crucial for the evaluation of leaders.

To this end, five studies were conducted. Studies 1A and 1B investigated whether unfamiliar faces of powerholders are misremembered as more prototypically dominant in physical appearance. This was achieved by using controlled facial stimuli. Study 2 explored whether similar memory biases occur for faces of familiar powerholders in the real world. In addition, we tested for the effects of target power on judgments of competence and attractiveness.

Studies 3A and 3B further investigated whether knowledge of a target's power impacts face perception during initial impression

Download English Version:

<https://daneshyari.com/en/article/7323921>

Download Persian Version:

<https://daneshyari.com/article/7323921>

[Daneshyari.com](https://daneshyari.com)