

Impact of Facial Features on Social Perception and Decision-Making: An Examination of Developmental, Cultural, and Cognitive Factors in Face Reading

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Abstract. The implications of face reading, or the impressions and perceptions individuals form on other individuals solely based on their facial features, is a significant factor to consider when evaluating daily social interactions and important decisions made in society. This paper aims to investigate how certain facial traits such as facial width-to-height ratio have an impact on judgment of others in situations of socializing and scenes of important decisions. The present study also examines how developmental and sociocultural factors that influence how these features are perceived through taking a holistic look at past studies conducted by scholars. Studies have indicated that people frequently make involuntary assumptions about the personalities of people they perceive from their facial features. These inferences can have a significant influence on social and formal contexts such as political elections and court rulings. Colourism is one example of a cultural preference that shows how society norms affect how people view certain facial traits. The study underlines how important it is to be aware of these biases and proposes that raising awareness and promoting education could lessen the detrimental consequences of these cognitive biases in practical situations.

Keywords: Facial features; face reading; social perception; Decision-making.

1. Introduction

Whether people realize it or not, facial appearance plays a significant role in daily social interactions both consciously and non-consciously, as they subtly influence judgement of another individual's attractiveness, trustworthiness, health and dominance. Moreover, the influence of facial perceptions is not only affecting social life, but also having a significant impact in formal settings, skewing political votes and even judicial judgement to such a high extent that it has been considered in judicial context where the prisoners' facial width to height ratio (fWHR) contributed to the jury's decision [1]. Face reading involves the perception of social patterns, personality tendencies, by seeing the face of a person. It resides in a law of evolution and society, as human bloodlines have often relied on visual messages to observe their betters, adversaries, or others. The assessment of facial phenotypes is mostly accomplished in positive terms of attractiveness, trustworthiness, or dominance. The subsequent self-perception and perception of others are the outcome based on the evaluated traits. Psychological aspects of face reading are embedded in human beings, and they can be innate or learned. There is evidence that certain facial features, such as a wide facial width to height ratio, signal aggressive behavior, while facial asymmetry is associated with attractiveness and trustworthiness. These mechanisms are not free from biases, though, as the distribution of these clues reflects both evolutionary traits that conditioned people's interpretation of those factors as a kind of clue to kill or to be killed, and cultural features that set up a kind of cultural lens. This paper aims to investigate how certain facial traits such as facial width-to-height ratio have an impact on individuals' judgment of others in situations of socializing and scenes of important decisions, as well as how developmental and sociocultural factors that influence how these features are perceived through taking a holistic look at past studies conducted by scholars.

2. Facial Factors' Influence on Social Interactions and Human Perceptions

First, the perception of certain traits such as trust and aggressiveness based on face reading are contributed by specific facial features, such as the facial width to height ratio (fWHR) [2]. A recent study that provided participants with samples of carefully generated faces with different ratios of fWHR being the only deference between them (each width and height have three variants of small, medium and big height/width), isolating the effects of other possibly confounding factors was able to conclude that the trustworthiness attribution for both male and female faces was particularly affected by the vertical component [2]. It was found that manipulation in the vertical ratio of a face resulted in a change of assessed trustworthiness. Those with disproportionately smaller height were identified as less trustworthy and feminine, but more aggressive resulting in them being picked less, contrasting with those with larger height, who were perceived as more trustworthy, more feminine, and less aggressive. On the other hand, almost all the faces with wider width were considered to be more aggressive comparatively and less feminine regardless of the the gender of the assessed facial sample [3]. From studies like these, it is worth noting that the certain aspects of facial factors, such as vertical facial characteristics play a very important role in the attribution of trustworthiness for both males and females. These factors, especially height, adds more layers to influence facial perception. In this case, perceptions such as a person's trustworthiness or aggressiveness are not always so cogent in people's perception, and could influence the way people are viewed and lead them to associate those with these traits either positive or negative character. A tall face could denote youthfulness, health, or an affinity for nurturing, which are all favorable aspects associated with trust and femininity. Yet on the other hand, short or fat faces can reveal strength or aggression, which are in turn linked to dominance; and thus, in consequence, lead to a diminished level of trustworthiness in a social, political or judicial context [4]. The study of the FWHR and social traits relationship forms an important tool for cognitive bias issues. Although these facial judgments are mostly taken for granted during the interaction process, and their influence on behavior is often imperceptible, which leads to serious outcomes. As an example, people may observe that in court situations, accused individuals with broader faces could be more likely to be considered as criminals when all other factors are the same, creating bias and unfairly reducing their odds of being decided as innocent. Nevertheless, by the same token, in the working environment, those whose faces are regarded to be more trustworthy will stand a better chance to be hired or confirmed, notwithstanding the qualification they may possess.

Further exploring the extent of which these perceived traits could have an impact in a real-life setting, recent studies suggest that facial features are a key factor influencing political election outcomes [5]. In a study led by Ballew et al, results showed that when confounding variables such as political context are controlled, facial appearance that was associated with trustworthiness and assertiveness was significantly predictive of election results [6]. As research studies have demonstrated, a person's first intuitive thought of a candidate's physical features may be based on their face. The characteristics of face symmetry and level of attractiveness are connected with the degree of trust and favorability the candidates experience from the voters. A significant percentage of voters ultimately make their political choices based on how they perceive candidates, and subsequently, these perceptions shape the political election results [7]. Regarding candidates, there are facial features included in the assessment of a leader's charisma. The results of the study have shown that candidates who possess facial symmetry, which is quite high, and candidates who have a wider forehead have more probability to be viewed as leadership in the minds of the voters and consequently, they may be more favored during elections. Distinct from influencing the outcome of political elections, the presence of certain features on one person's face is an important element in other social activities as well.

Having the power of discrimination based on the facial appearance of an accused draws some serious consequences on the judicial system. The criminals whose faces are often stereotyped as evil are more likely to be remembered when lineups are conducted by police and are taken to trial [8]. Defendants who seem not to have composure or those whose faces are akin to that of the crime they are accused of are more likely to be given a guilty verdict during trial. The ruling of judges may be

highly influenced by the facial characteristics of the defendants. When the context is the same, judges are more likely to convict defendants for harsh penalties when their facial features suggest aggressiveness, while more lenient sentences are handed down to defendants with more favorable facial features. Besides political matters, facial attributes are vital for all human activities and relations in every way.

3. Factors Influencing Facial Perceptions

How people perceive another individual is dependent on a wide range of unique factors. In the social process, people spontaneously attribute traits to strangers solely based on their facial features. These first impressions include judgements about trustworthiness, honesty, competence, intelligence, aggression, and likeability, with these judgements being made in just the first few seconds people view the other individual's face [9].

How do these judgements form, and what are the basis that influences people to attribute these traits to certain features? Past studies have made discoveries that these perceptions are influenced by a variety of factors, including early life experiences, emotional states, and cultural background. First, the tendency to form judgement and impressions appears at a young age of early development of a child. At a young age, a significant portion of conversations shared by a parent and a child are centered on the perceived characteristics and traits of real life or fictional characters. In a recent study in 2021 sampling parents and their child recruited by Eggleston et al, findings suggest that parents regularly communicate with their children about the personality traits that can be derived only from physical attributes. The study reveals that when parents and their children share a discussion regarding a presented stimuli character, at least 10% of the overall conversation shared are in terms of inferences and first impressions that are made solely on the characters' facial appearance [10]. The prevalence of this kind of conversation is an indicator that parent-child conversations form the basis of the face to trait mapping behavior between parent and child, suggesting how the influence of parents in the developmental stage of a child has an influence on making facial-based judgements in the child's life.

The validity of the influence of the parent on developing children can also be justified and explained by other theories of psychology that deal with development and growth. As an example, the famous Social Learning Theory proposes that a child learns traits, beliefs, and practices from observing and imitating others, especially influential people like the child's parents. When it comes to face judgments, children possibly learn the implicit biases and opinions that their parents make of different faces. On the one hand, parents associate the physical traits of characters with personalities, for example, calling a character "kind-looking" or "not trustworthy," giving children an opportunity to generalize these attributes towards other people. With the passage of time, these experiences are used as cognitive frames, which guide children in recognizing faces. The study by Eggleston et al (2021) has shown that kids learn to map emotions onto traits during parent-child conversations, but the study also regards the socialization processes that go beyond the family and manifest during other social interactions such as preschool education. In a classroom environment, students might encounter carefully concealed biases, such as preferences of peers or teachers based on their choices or judgments related to appearance. For instance, teachers are likely to show residual preference towards children, whose faces are more "nice" or "trustworthy," which can only strengthen these preferences in their students.

In terms of the effects of cultural background on the perception of facial traits, while most evolutionary-based studies done in the field of face reading find the assessments of certain traits such as attractiveness and confidence as consistent between cultures, studies that consider the environmental settings of their targeted population rather than their genes conclude that the strategies employed to extract information and form impressions from faces differ across cultures [11]. In a recent study aimed to investigate the cross-cultural differences in perception of the facial appearance of females from multi-ethnic backgrounds, results showed that the assessments for the traits attractiveness and health showed larger differences across ethnicities, with some heavy variations

linking to both the faces and the assessor's ethnicity, in addition to gender differences [12]. In the study conducted by Voegeli et al, Indian assessors made comparatively lower rating in terms of the attractiveness and health traits of female faces shown that belong to African and Indian women, which may reflect the influence of socio-cultural factors on facial judgment such as "colourism", a preference for lighter skin color, as darkly pigmented skin in India is perceived negatively, partially due to the hierarchical caste system [13]. Moreover, in the study, similar preferences that might be correlated to "colourism" has been reported for female faces of a South African ethnicity, where lighter-skinned migrants have been treated more positively than darker-skinned migrants [13]. Another notable difference in the judgements made purely on facial features is how African assessors judged French faces lowest and Indian faces highest on attractiveness, distinct from other assessors from other ethnic backgrounds. These findings from recent studies have significant implications for social and psychological research, particularly studies on how people perceive and evaluate faces. Firstly, it indicates that researchers ought to be prudent regarding the universality of facial perception. Although evolutionary psychology is a helpful tool to explain some basic human behavior and exclusively culture's role cannot be ignored, it possesses some kind of limitations. It is important to highlight that researchers should focus their observation on a broad spectrum of populations to reflect the expression of cultural diversity in facial preferences and to avoid drawing generalizations based solely on Western or WEIRD (Western, Educated, Industrialized, Rich, and Democratic) cultures. This study shows the necessity of challenging the multicultural and racial prejudices in the society-wide beliefs in the media, politics, and technology backdrop.

Based on what the assessor is used to seeing daily and influenced by cultural standards, judgments about attractiveness, health, and other social characters become culturally relative. It has been suggested that people tend to be more attracted to faces people are familiar with from their own group, either cultural or ethnic, which might also be the reason why African assessors choose Indian faces over French ones on higher scales. Conducting such an assessment could help reveal that cultural intimacy or the common visual schema of facial features interferes with an objective judgment of faces, making certain faces more appealing than others depending on the assessors' cultural background. Furthermore, these results show that the biases affect not only physical attributes made but also other socio-political factors. In a society where race and ethnic classifications among groups of people do persist, individuals' decisions regarding whom to trust and who to mistrust might be influenced by both conscious and subconscious biases that could have been developed by cultural-oriented narratives about racial, ethnic, and even identity values.

4. Conclusion

The studies reviewed in this paper illustrate the deep and extensive influence of face reading in various life aspects, from social interactions to political formation and judicial outcomes. One of the important implications is that the subconscious fast face judgments happen quickly and effortlessly and influence how exactly people perceive others – their trustworthiness, dominance, aggression and competence. Such judgments can lead to unwanted biases, and consequently, both in the courtroom and in politics, which are professional and formal settings, the miscalculating focus of justice and fairness can harm the system. The significance of recognizing face reading as a cognitive bias phenomenon is apparent, though the real-life applications of the bias-inhibiting practices are not well investigated.

Tackling the biases requires a comprehensive approach consisting of several methods. To begin with, education and mass awareness could serve as an effective tool to bring down the immediate censorship that people practice based on facial traits. So doing this will make people to be more cognizant of their biases in social settings such as at work or the courts or even at home. Thus, they will be able to make more rational decisions.

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