1st International Conference of Science of Science & Innovation, June 7-9, 2022
National Academy of Sciences, Washington, D.C., USA

The Face of Science: Machine-Rated Facial Attractiveness Predicts Scientists' University Rankings

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Keywords: Facial Attractiveness, Facial Perception, Deep Learning

Extended Abstract

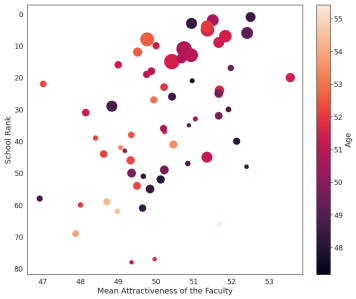
For centuries, scholars have been fascinated with the study of faces. Consistent evidence demonstrates how people are deeply engrained in drawing inferences from faces (Oosterhof & Todorov, 2008; Todorov et al., 2005; Todorov et al., 2008; Todorov et al., 2015). People make rapid trait judgments such as trustworthiness and dominance based on others' faces, even when they were only briefly exposed to the facial cues (Oosterhof & Todorov, 2008). Regardless of the objectivity of these judgments (Olivola et al., 2014), faces are remarkably related to important outcomes in our lives (Todorov et al., 2015).

An important facial feature that has been widely studied is facial attractiveness (Hosoda et al., 2003; Rhodes, 2006; Olivola & Todorov, 2017). Research has found that individuals with more attractive faces tend to receive favorable treatments compared to less attractive individuals. For example, people with more attractive faces are more likely to be hired in job interviews (Ritz & Waldner, 2011; Watkins & Johnston, 2000), rated positively in performance assessments (Lerner, 1965) and promoted up the corporate ladder (Chung & Leung, 1988; Morrow et al., 1990). The effect where attractiveness is priced into people's compensation is labeled as the "beauty premium" (Hamermesh & Biddle, 1994).

Despite extensive research in this area, there is a dearth of studies on the faces of scientists. Specifically, how do facial attractiveness affect scholarly outcomes of scientists? On one hand, given the significant relationship between attractiveness and career outcomes, it would be possible that similar effects can be observed in scholars. On the other hand, one could argue that the nature of academia. This is because the track record and quality of past performance of scholars are either publicly visible or easily accessible. Moreover, people who make important selection decisions, such as deciding which professor to be hired and whether a research can be accepted, are themselves, scholars. They were elected into their positions due to their extensive knowledge and expertise in their respective domains. Thus, faces should carry less predictive power for scholars.

The current research addresses these competing questions. We collected a dataset of 27,155 scholars, in which we extracted an array of features, including facial attractiveness, from scholar's profile images posted on their Google Scholar page. The facial attractiveness feature was extracted using a commercial application programming interfaces (API), namely FacePlusPlus. To control for the influence of other facial features, we also extracted common facial attributes such as emotion expression, glasses, presence of smiles, and facial hair. We evaluated outcomes such as the correlations between the faculty's facial attractiveness and research performance, academic promotion and the ranking of the University. We found the correlation between the mean faculty's facial attractiveness and University ranking is both strong (r=-0.4388) and significant (p<0.00%), which implies the existence of predictive relationship between facial appearance and a scholar's University ranking. Using the same dataset, however, we found that facial attractiveness is less correlated to a scholar's research performance and academic achievement after becoming a faculty member. Our main findings that facial attractiveness have higher predictive power for faculty candidates rather than the success of existing members replicated previous studies in the industry world.

Figure 1. Scatter plot of the faculty attractiveness and the University rankings.



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