To Dye or Not to Dye : The Effect of Hair Color on First Impressions

Amanda Song
University of California, San Diego, San Diego, California, United States

Devendra Pratap Yadav
University of California San Diego, La Jolla, California, United States

Weifeng Hu
University of California, San Diego, San Diego, California, United States

Garrison Cottrell
UCSD, La Jolla, California, United States

Ed Vul
University of California, San Diego, La Jolla, California, United States

Abstract

How does hair color affect people's first impression of a face? Equipped with state-of-the-art Generative Adversarial Network (GAN) models, we are able to re-investigate the questions with strictly and precisely controlled image stimuli. By creating triplets of the same face image with different hair colors, we examine how black/brown/blond hair colors affect perception of attractiveness, trustworthiness and intelligence. Our study finds that if the original hair color is dark, the optimal choice in most cases is to stay in dark colors. If your original hair color is blond, changing into brown will, in general, make you look more intelligent, sometimes at the cost of attractiveness. The specific best color choice varies a lot more for people with blond hair. Furthermore, we train a neural network model that predicts people's impressions on faces in different trait dimensions accurately. This study could provide guidance to people regarding their image and impression control.