

〈シンポジウム〉

第48回日本香粧品学会(2023)・シンポジウム「皮膚色アップデート; 目から鱗のお話」

視覚心理から考える肌の色とお化粧

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Skin Color and Makeup from Visual Psychology

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Abstract

Various information about the body and mind, such as health status, age, and emotions, can be obtained through facial color and skin appearance. Therefore, humans have a face-specific recognition mechanism, including specific perceptual characteristics for skin color and brightness. We found that the sensitivity to changes in skin redness (in the direction of hemoglobin increase) was higher than that to changes in skin yellowness (in the direction of melanin increase). We also showed the influence of skin color on facial brightness perception. The brightness of faces with skin color modulated in the reddish and yellowish direction was evaluated by matching the brightness of a reference face image with a constant hue. The results showed that reddish faces appeared brighter than yellowish faces at the same brightness. We conducted a similar experiment on foreign observers and found different trends. However, the facial impression evaluation experiment results showed that Japanese, Thai, and Chinese observers rated reddish faces as brighter. These differences could be related to skin color distribution, culture/environment, and judgment criteria. We also investigated the influence of color on facial expression recognition. We showed that reddish (or increased hemoglobin) faces promoted the recognition of angry facial expressions. In contrast, lighter (or decreased melanin and hemoglobin) faces tended to promote the recognition of happy facial expressions. This suggests that humans use facial color as a cue for facial expression recognition and further implies that these skin-specific perceptions of facial skin would contribute to obtaining information on health status and emotions. The studies showing that the conspicuousness of pigment spots is affected by their number, density, location, contrast with the skin and skin homogeneity will also be introduced. Understanding the perceptual characteristics of skin color and texture will be useful for the makeup and cosmetics field.

Key words: Skin color perception, Face perception, Facial brightness, Facial expression, Pigmented spot.