

The Mirror Effect on Social Media Self-perceived Beauty and Its Implications for Cosmetic Surgery

Carlo M. Oranges, MD; Kristin M. Schaefer, BS; Andreas Gohritz, MD; Martin Haug, MD; Dirk J. Schaefer, MD

But when my glass shows me myself indeed
Beated and chopp'd with tanned antiquity,
Mine own self-love quite contrary I read;
Self so self-loving were iniquity.

—William Shakespeare, Sonnet LXII

Sir:

Shakespeare, whose “magic finger”¹ touches most of the speaks of human nature, describes the mirror as a reliable tool to confront ourselves with our real images and overcome excessive self-love, based on an excessively favorable self-representation of beauty. However, instead of a faithful representation of reality, the mirror reflects a horizontally flipped image of our faces as they are viewed by others and recorded in photographs, reversing asymmetries and side-specific details, such as hair orientation. This mirror image is what we are familiar with and used to recognize as our real image.

Interestingly, psychological research, recently validated in a plastic surgery setting, demonstrates that individuals tend to prefer a facial photograph corresponding to their mirror image rather than their true image.^{2,3} This phenomenon is explained by the mere-exposure effect postulated by Zajonc⁴ in 1968, according to which mere repeated exposures of an individual to a stimulus are a sufficient condition for the enhancement of stimulus evaluation.² Analogously, a close friend or lover, more often exposed to the true than to the mirror image, would prefer a photograph corresponding to the true image.²

This leads to interesting implications concerning the novel social media context where taking selfies and sharing them on popular platforms such as Facebook, Instagram, Twitter, or Snapchat have increased tremendously during the past years. Many of our patients are indeed blaming their weird appearance in selfies as a reason to consult a plastic surgeon and seek minor or major cosmetic procedures.⁵ The above-mentioned *mirror effect* can

be identified as possible explanation, as subjects perceive an unfamiliar image of self as less or not attractive.

However, this effect can be attenuated by frequency of selfies taken. A recent study compared selfie-takers' and non-selfie-takers' perceptions of their selfies versus photographs taken by others.⁶ Although both groups reported equal levels of narcissism, the selfie-takers perceived themselves as more attractive and likable in their selfies than in others' photographs, but non-selfie-takers viewed both photographs similarly, revealing notable biases in self-perception.⁶ This further confirms the mere-exposure hypothesis, as individuals find selfies more attractive as they become more familiar with them.

However, the phenomenon of subjects complaining about their selfies' facial images can also be explained by the fact that people simply show an enhancement bias in self-recognition because of an automatically and intuitively positive association to the self.⁷ In recent experiments, participants whose faces were made more or less attractive using a morphing procedure were more likely to recognize an attractively enhanced version of their own face out of a lineup as their own.⁷

Finally, a bias in self-face recognition was also found in a recent study in which participants selected more attractive modified pictures for the self-face condition.⁸ This was explained solely by a memory distortion (ie, overvaluation) of the self-face, as the influence of mirror-reversed pictures on self-face recognition was excluded.⁸

Carlo M. Oranges, MD

Department of Plastic, Reconstructive,
Aesthetic, and Hand Surgery
Basel University Hospital
Spitalstrasse 21
4031 Basel, Switzerland
E-mail: carlo.oranges@usb.ch

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From the Department of Plastic, Reconstructive, Aesthetic, and Hand Surgery, Basel University Hospital, Basel, Switzerland.

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Dr. Oranges and K. M. Schaefer contributed equally to this work.

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