

The Psychophysiological Effects of Experiencing Face Lenses

Using Skin Conductance, Facial Electromyography, and Eye-Tracking to Measure Emotional Responses to Face Lenses

Alsus David, alsus.david@unt.edu; Daniel Peak, daniel.peak@unt.edu

An increasing number of brand managers and advertisers invest in campaigns involving consumer engagement with augmented reality (AR) features known as face lenses on mobile social networking apps such as Snapchat. Ad promoters encourage user participation in ad campaigns by appealing to their emotions—a key, hedonic design strategy (Li et al., 2018). AR emotional affectation research is in its early stages (Harley et al., 2016). Consistently, researchers have challenged the validity and reliability of self-report methods for measuring emotions. In response to this criticism, some investigators are advancing the notion that psychophysiological measures may be a viable alternative, either as supplemental measures to survey methods or as independent, alternative measures. In both cases such biometric data are viewed as objective, unbiased measures (Li et al., 2018). Drawing on the Russell (1979) 2-dimensional classification of affect and the Bradley and Lang (1994) Self-Assessment Manikin (SAM), this study employs a multi-measurement comparative approach to examine the following research questions: (1) When measuring individual emotional responses to face lenses, are psychophysiological methods more useful and effective than self-report methods? (2) When measuring individual emotional responses to face lenses, are psychophysiological measures valid techniques to record individuals' moment-to-moment emotional responses to their interaction with face lenses (Li et al., 2018)? Expected Contributions of this study are: (1) Identifying differences between self-reported measures and psychophysiological techniques in capturing emotions experienced with face lenses. (2) Identifying characteristics of face lenses that evoke certain emotional responses. (3) Providing insight to advertisers and brand managers on how to measure emotional responses when testing their ads and insight on which characteristics of face lenses trigger emotional responses in consumers.

References

- Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: the self-assessment manikin and the semantic differential. *Journal of behavior therapy and experimental psychiatry*, 25(1), 49-59.
- Harley, J. M., Poitras, E. G., Jarrell, A., Duffy, M. C., & Lajoie, S. P. (2016). Comparing virtual and location-based augmented reality mobile learning: emotions and learning outcomes. *Educational Technology Research and Development*, 64(3), 359-388.
- Li, S., Walters, G., Packer, J., & Scott, N. (2018). Using skin conductance and facial electromyography to measure emotional responses to tourism advertising. *Current Issues in Tourism*, 21(15), 1761-1783.
- Russell, J. A. (1979). Affective space is bipolar. *Journal of personality and social psychology*, 37(3), 345.