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Masculine and Feminine Facial Muscle Reactivity in Response to Observation

Caroline Avery, Sara Beam, Waldron Collins, Micah Wilson

Individuals are consciously and unconsciously motivated by the need to fit in with social situations in order to maintain health and upkeep appearances (Hale et al., 2005). The literature has shown that individuals tend to change their facial expressions, particularly their zygomatic and ocularis muscles, in response to social situations, and they tend to exhibit an elevated heart rate (Brandenburg et al., 2022; Linnunsalo 2023). We predict females will exhibit these traits more due to their increased empathy and natural facial reactivity caused by the social pressures that dictate display rules of emotion by gender (Pollack, 1998; Adams Jr., 2014). We tested participants from Belmont University's Introduction to Psychology classes by having them take an assessment while hooked up to a facial EMG and ECG. These participants were split up into three conditions to test the importance of social observation: in person observation, online observation, and no observation. Our expected results might suggest that higher facial muscle reactivity and heart rate will be found in more feminine individuals. With these findings, it can be suggested that social presence and societal pressures surrounding gender norms have a lasting impact in all facets of our lives.

Key Words: Facial muscle reactivity, heart rate, masculinity and femininity, facial EMG, ECG