Influence of Age in Response to Emoticon Stimuli Using Facial Electromyographic Technology

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Digitalization is changing human behavior. In 2013 Pew Research, conducted a survey of cell phone users found of American cell phone users, 44% slept with their phones and 29% described their cell phone as “something they can’t imagine living without.” Despite the massive impact of cell phones, and the digital communication associated with them, there is relatively little scientific research about the human physiological response towards it. Age appears to affect cell phone usage and therefore, it is important to study the influence of age on the “emoticon”. Would an elderly man on the latter end of the generation gap react to a smiley-face the same way he would to a smiling face and to what extent compared to those younger that may be habituated to emoticon use? To determine age’s effect on the response to emoticons, 80 subjects participated in an experiment. Electrodes measured the electrical activity of the zygomaticus major muscle (mV) while each subject viewed a 10-second slideshow containing one emoticon image and one photograph image selected to initiate that muscle’s function (smiling). International industry-standard procedures were followed to analyze the data. Using the resulting rectified means and percent baseline values, statistical analyses showed two main results: 1. Since there were significant differences between age groups in the response to emoticons or photographs, age does influence response. Younger groups responded equally to emoticons and photographs. Older subjects preferred photographs. This can be used in advertisement audience targeting. 2. There was not a significant difference between percent baseline emoticon and percent baseline photograph, across all age groups.

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