

Eye Movement Assessment in High and Low Social Anxiety Individuals: An Eye-Tracker Study

Wei-Ling Su

National Cheng Kung University, Tainan, Taiwan

Min-Hsien Wu

National Cheng Kung University, Tainan, Taiwan

Po-Yi Chi

National Cheng Kung University, Taipei, Taiwan

Hua Feng

Graduate Institute of Rehabilitation Counseling, Changhua, Taiwan

TSE-MING CHEN

Graduate Institute of Rehabilitation Counseling, Changhua, Taiwan

Chia-Hua Chang

National Changhua University of Education, Changhua, Taiwan

Ting-Hsuan Chang

National Cheng Kung University, Tainan, Taiwan

Te-En Huang

National Cheng Kung University, Tainan, Taiwan

Jon-Fan Hu

National Cheng Kung University, Tainan City, Taiwan

Abstract

Previous studies have suggested that, socially anxious individuals tend to avoid eye contact while looking toward faces. The study designed an emotional faces task consisted of human and comic face stimuli with 6 different emotions (happy, angry, sad, scared, stunned, confused), and recorded the eye movements to examine the hypotheses above. The results revealed that high social anxiety (HSA), medium social anxiety (MSA) and low social anxiety (LSA) individuals have no significant difference on total fixation duration of the eyes, nose, and mouth among 6 different emotions. However, while focusing on the angry expression, LSA have significantly higher total fixation duration, visit count and area normalized score on the nose. It shows that LSA tend to focus on the nose intentionally when a person shows an angry face. Furthermore, HSA show lower proportion of eyes to eyes, nose and mouth fixation duration than MSA in happy, sad and stun faces.

Keywords: eye tracking, social anxiety, emotional faces