An Investigation examining individuals' potential attention bias towards stimuli with high emotional significance.

Thank you for taking the time to participate in this study.

Previous research has shown that individuals' working memory (WM) for face recognition is greater when faces exhibit negative emotions, i.e. anger versus positive emotions i.e. happy (Eastwood et al., 2003; Fenske and Eastwood, 2003). An angry disposition increases individuals memory for face identification which suggests, that the presence of potential social threat cues can lead to a more robust and durable representation of face identity.

This experiment is designed to test how different emotions expressed by others compete for WM resources. It is possible that individuals attention is automatically drawn and biased towards faces that are exhibiting an angry expression and individuals spend a greater amount of time looking at these faces despite being in the presence of various other emotions; happy, sad and fearful. If this is the case, then we expect to find (1) attention, as measured by eye fixations, is greater to angry faces than other emotional faces, and (2) memory accuracy is greatest for faces with angry expressions due these representations being better encoded and stored into WM and competing the strongest for WM resources. This experiment is also investigating the possibility that anxious individuals have a greater attention and memory bias for angry face representations due to heightened sensitivity to social threat.

This experiment was a within-subjects design with one independent variable of Emotion: faces to remember were angry, happy, sad and fearful. The dependent variable was memory accuracy for the faces. Results on the WM task will be correlated with Anxiety scores to test whether levels of anxiety modulate how threat emotions compete for attention and WM resources.

If you have any further questions about this research, please contact Leia Ferrall, leia.ferrall.10@aberdeen.ac.uk or Dr Madge Jackson, William Guild Room G13, m.jackson@abdn.ac.uk, 01224 272236.

Further Reading

Jackson, M.C., Linden, D.E.J., & Raymond, J.E. (2014). Angry expressions strengthen the encoding and maintenance of face identity representations in visual working memory. *Cognition & Emotion, 28*(2), 278-297.