# Luminance Report – Affective Go/No-Go Task

***Related to****: https://github.com/mjcolwell/emotional\_go\_no\_go*

A statistical analysis of the luminance profile of greyscale images used within the AGNG task was undertaken. Please find the associated code in the ‘luminance\_analysis.ipynb’ notebook. These analyses are specific to stimulus-wise oppositions within the task (e.g., fearful vs happy face), and are relevant for downstream behavioural and pupillometry-based analyses.

You may wish to include the luminance profile as a regressor in your pupillometry analyses (e.g., during the ‘STIMULUS\_PRESENTATION phase) for additional precision. Extracted luminance values are included in the conditions/behavioural data, and printed as messages within the eye tracking script.

There were no significant differences in luminance via planned Welch t-tests, equal variance not assumed (alpha set to 0.05).

## Main analysis – All pictures

Fearful vs Happy: t=0.079, p=0.937, d=0.015

Fearful vs Control t=0.340, p=0.735, d=0.066

Happy vs Control: t=0.336, p=0.738, d=0.064

## Analysis of NoGo Images – Version 1

Fearful vs Happy: t=-0.171, p=0.865, Cohen's d=-0.041

Fearful vs Control: t=0.010, p=0.992, Cohen's d=0.002

Happy vs Control: t=0.273, p=0.786, Cohen's d=0.065

## Analysis of NoGo Images – Version 2

Fearful vs Happy: t=-0.335, p=0.739, Cohen's d=-0.080

Fearful vs Control t=0.052, p=0.959, Cohen's d=0.012

Happy vs Control: t=0.539, p=0.592, Cohen's d=0.129

## Analysis of Go Images – Version 1

Fearful vs Happy: t=0.730, p=0.466, Cohen's d=0.101

Fearful vs Control: t=0.540, p=0.59, Cohen's d=0.075

Happy vs Control: t=-0.323, p=0.747, Cohen's d=-0.045

## Analysis of Go Images – Version 2

Fearful vs Happy: t=0.095, p=0.925, Cohen's d=0.019

Fearful vs Control: t=0.051, p=0.959, Cohen's d=0.011

Happy vs Control: t=-0.086, p=0.931, Cohen's d=-0.012