

Supplementary Analyses – Startle as a Biomarker of PTSD Status

Expanding on analyses presented in the results, we examined receiver-operating characteristics (specifically area under the curve) for HR reactivity to startle in the low and high threat conditions as well as EMG and SC response to startle in all three threat conditions. We conducted logistic regressions with current (coded as 1) versus past or no PTSD (coded as 0) as the outcome. Predictors (each in separate models) were HR increase following startle under low and high threat and EMG and SC increase following startle under low, ambiguous, and high threat. HR under low threat was a significant predictor of current PTSD status, $\chi^2(1, N = 234) = 10.2, p = .001$, and the AUC was .66. HR under high threat was a significant predictor of current PTSD status $\chi^2(1, N = 236) = 4.48, p = .034$, and the AUC was .62. SC startle response under ambiguous threat was a significant predictor of current PTSD status, $\chi^2(1, N = 177) = 4.02, p = .045$, and the AUC was .58. SC startle response under low and high threat and EMG startle response under low, ambiguous, and high threat were not significant predictors of current PTSD status ($ps > .05$). These findings indicate that HR, SC, and EMG startle reactivity are poor indicators of PTSD status (AUC values below .8 are not useful for making diagnostic determinations (Zhu, Zeng, & Wang, 2010)).