

The Effect of Stress Level and Work Environment on the Accuracy of Eyewitness Testimony, Year III

Beall, Lauren (School: Hanna Early College High School)

McAuley, Patricia (School: Hanoi Amsterdam High School for the Gifted)

Meaney, Holley (School: Gymnasium Johanneum Lueneburg)

By determining and analyzing the factors that impact an eyewitness's accuracy, the risk for inaccuracy can be estimated. This study elaborates on two previous studies assessing the effects of age, gender, the Cross Race Effect, and education level on the accuracy of eyewitness testimonies. This current study determines the effects of stress levels and one's work environment on the accuracy of eyewitness testimonies. This year we have tested 237 participants. The results demonstrated that a higher stress level will result in a higher accuracy when identifying the perpetrator. This is due to adrenaline and heightened short term memory. It also showed statistical significance between the work environment and stress level of the witness's ability to select the perpetrator. The witnesses with a lower interaction with people during the day had a higher accuracy. Each of these factors was tested for statistical significance with a Chi Square test, ANOVA, t-test, and Pearson Coefficient. Error from this study is present in a smaller sample size and in some instances, unevenly distributed. This project will be expanded upon to eliminate this error and make the results more valid. Around $\frac{3}{4}$ of mis-convictions are due to inaccurate testimonies, making this study vital to verdicts in the court of law. In the future, we hope to create a scale or algorithm that will determine a witness's perceived accuracy based on multiple factors we have tested.