

Department of Psychology Colloquium Series

Do People with a History of Non-Suicidal Self-Injury
Have Greater Sensitivity to Facial Expressions?
An Examination Using Facial EMG,
Ideal Observer Analysis, and Morphing Stimuli

Thursday, March 1, 2018 2:30 p.m. - 4:00 p.m. 306 Southam Hall



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Non-Suicidal Self-Injury (NSSI) is a prevalent but poorly understood syndrome wherein individuals intentionally cut, bruise or burn themselves without the intent to die. To better understand this condition, we have been testing the hypothesis that individuals who engage in NSSI are more sensitive to others' emotions, and that this forms part of the etiology of their self-injurious behaviours. To do this, we have

measured the sensitivity to emotional expressions of people with a history of NSSI in a number of ways. In our first study, we used morphing face stimuli to assess the minimum intensity of emotion needed for identification. Subjects with a history of NSSI were able to recognize less intense emotions than controls. In our second study, we examined the degree to which people with a history of NSSI reflexively mimic emotional face stimuli using facial EMG measurements. Data analysis is ongoing. In our most recent study, we measured the minimum signal-to-noise threshold needed to recognize faces using ideal observer analysis. Here we found no group differences, suggesting that the advantage in sensitivity of participants with NSSI is not based on low-level stimulus features, but rather involves higher-order perceptual and cognitive factors. Our research is part of a larger multidisciplinary attempt to gain a better understanding of this widespread problem, with the ultimate goal of informing prevention and therapy.