

## Psychopathy: The Relationships With Interoceptive Awareness, and Anxiety Sensitivity

Previous research has examined the relationships between psychopathy, interoceptive awareness, and anxiety sensitivity. A widely used instrument, the Levenson Self-Report Psychopathy Scale, divides the construct into two subgroups, primary and secondary. Primary psychopathy is associated with a lack of empathy, low anxiety, and is presumed to be a consequence of some intrinsic deficit that hampers self-regulation and normal adjustment. Secondary psychopathy is associated with risk taking and antisocial behavior, which may stem from social disadvantage and excessive neurotic anxiety (Eken, 2017).

It may be that individual variation in the experience of physical anxiety and the appraisal of anxiety differ in psychopaths. For instance, secondary psychopathy has shown to be a negative predictor of body sensation and attention regulation (Lyons & Hughes, 2015). It was also found that adult, psychopathic inmates were less accurate in heart rate detection, suggesting that lower interoceptive awareness is a feature of psychopathy (Nentjes et al., 2013). This is a finding that needs to be replicated, especially as there are many different approaches to measuring interoceptive awareness.

Some studies have also found an association between psychopathy and, a closely related concept, anxiety sensitivity, the degree to which physical symptoms make a person afraid. Some studies suggest psychopaths report greater anxiety sensitivity (Sabouri, et al., 2016), however, the research is not unanimous on this finding. The current study explores the relationship between psychopathy, interoceptive awareness, and anxiety sensitivity.

It was hypothesized that (a) interoceptive awareness would be correlated with psychopathy but that this relation would be primarily driven by secondary psychopathy, and (b)

that anxiety sensitivity would be correlated with psychopathy and that this would also be driven primarily by the relationship with secondary psychopathy.

### Methods

A sample of 330 students at a primarily undergraduate private institution completed this study. Participants used the online survey platform Qualtrics in a supervised lab setting to answer a series of questions and received extra credit in psychology courses for completing the study. Participants completed the Levenson Self-Report Psychopathy Scale, Anxiety Sensitivity Index, and Interoceptive Awareness Scale, a subscale of the Eating Disorder Inventory. In addition to heart rate estimation, many researchers use subjective reports of awareness of internal states to assess interoceptive awareness. A high score on the Interoceptive Awareness Scale is associated with low interoceptive awareness. These scales were a part of a larger study containing numerous other scales, thus participants were less aware of the specific goals of the study. The survey was approved by the college's IRB.

### Results

All of the hypotheses were supported. Interoceptive awareness was positively correlated with psychopathy,  $r(330)=.16, p<.01$ . As predicted, this correlation was largely due to secondary psychopathy, which was more strongly correlated with interoceptive awareness,  $r(330)=.32, p<.01$ . The relationship between primary psychopathy and interoceptive awareness was not significant. Anxiety sensitivity was also correlated with psychopathy,  $r(330)=.20, p<.01$ . Primary psychopathy had no relationship with anxiety sensitivity. Secondary psychopathy, however, was strongly correlated with anxiety sensitivity,  $r(330)=.32, p<.01$ .

### Discussion

As predicted, relationships were found between psychopathy and both anxiety sensitivity and interoceptive awareness. These relationships were driven by secondary psychopathy (Levenson, 1995). This facet is generally defined by impulsivity and risk taking behavior. It appears that individuals who are high in secondary psychopathy have low interoceptive awareness. They are less able to recognize and name internal sensations and emotions. At the same time, these subjects who are high in secondary psychopathy are also more distressed by physical symptoms of anxiety. This indicates that lower awareness of bodily and emotional sensations are linked to lower tolerance to anxiety in secondary psychopaths. Individuals who are low in interoceptive awareness experience sensations such as elevated heart rate strongly. At the same time, having high anxiety sensitivity means the sensations are more threatening. These individuals may be blindsided by more intense experiences of anxiety as opposed to feeling anxiety increase incrementally and having the opportunity to self regulate. This study is limited by the specific college population, and possibly by the narrow operationalization of interoceptive awareness. Future studies should include heart rate estimation, in addition to the Interoceptive Awareness subscale. These relationships should be explored in further research on psychopathy, interoceptive awareness, and anxiety sensitivity.