

# Information Processing and Anxiety Sensitivity

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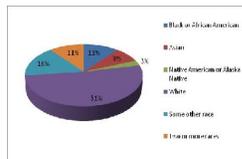
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## Introduction

- Anxiety sensitivity (AS) is the fear of anxiety-related sensations, for example, trembling, shaking, and poor concentration.
- AS is associated with having one or more anxiety disorder diagnoses, including panic disorder with and without agoraphobia, posttraumatic stress disorder, generalized anxiety disorder, obsessive-compulsive disorder, and social phobia (Keogh, Ayers, & Francis, 2002; McNally, 1992; Rectora, Szacun-Shimizu, & Leybman, 2007; Schmidt, Lerew, & Jackson, 1999; Schmidt, Zvolensky, & Manera, 2006).
- Information processing may be the link between AS and anxiety disorders (McNally, 1999).
- Since biases in information processing are ways in which AS can confer risk for developing anxiety disorders (McNally, 1999), exploring processing patterns among people with AS may be particularly helpful.
- The purpose of the present study was to investigate ways in which the processing of negative and threatening information may be biased in individuals with varying degrees of AS.
- It was hypothesized that people with high AS would recall more negative and threatening words than people with low AS.

## Participants

- Thirty seven students participated ; 81% (n=30) were female and 19% (n=7) male.
- Participants were grouped as having low AS (n=16) or high AS (n=21) by scores on the Anxiety Sensitivity Index (ASI).
- Approximately one half of the participants identified as White.



## Procedure

Participants were recruited via either flyers posted throughout a local university or presentations in psychology classes. AS level was determined by a screening measure that was completed either over the telephone or in person. Only those categorized as having low or high AS at both initial screening and at the time of participation were included in the study. Financial compensation or course credit was given to those who participated.

## Measures

**Anxiety Sensitivity Index** (ASI; Reiss, Peterson, Gursky, & McNally, 1986)

- The ASI is a 16-item self-report measure that was used to assess AS.
- Participants rated the extent to which they agreed with each item using a 5-point Likert scale, from "very little" to "very much." Total ASI scores can range from 0 to 64, with higher scores indicating greater AS levels.
- The ASI has been found to be a reliable and valid measure of AS and not of other anxiety-related constructs (Maller & Reiss, 1992; McNally & Lorenz, 1986; Peterson & Heilbronner, 1987; Peterson & Plehn, 1999; Peterson & Reiss, 1987; Reiss et al., 1986; Taylor, 1996; Zinbarg & Barlow, 1996).

## Emotional Stroop task

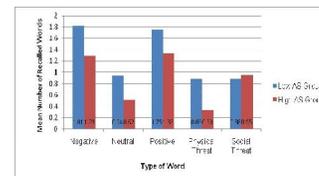
- The Emotional Stroop task provides insight into cognitive processes by examining how the meaning of a word can interfere with the naming of the color the word is printed in (Stroop, 1935).
- An emotional word is displayed in a color and the participant is asked to recite the word color.



- Participants sat 50cm from a monitor that individually displayed 150 words categorized as either negative, neutral, positive, physical threat-related, or social threat-related.
- Words were displayed in four different colors: green, blue, pink, and red. Participants were instructed to recite the color of the word as it appeared on the screen.
- After completion of the Stroop task and a brief demographics questionnaire, participants were given a sheet of paper and were asked to write down as many words as they could remember from the Stroop.

## Results

- Analyses of variance were conducted and indicated significant differences between groups for the total number of recalled words ( $F(1,35)=4.58, p<0.05$ ).
- A trend was discovered between groups for the recall of physical threat words ( $F(1,35)=3.82, p<0.06$ ).
- There were no significant differences found between groups for the recall of social threat words ( $F(1,35)=0.045, n.s.$ ) or negative words ( $F(1,35)=1.97, n.s.$ ).



- The high AS group ( $M=0.33, SD=0.80$ ) recalled fewer physical threat words compared to the low AS group ( $M=0.88, SD=0.89$ ).
- The high AS group ( $M=4.43, SD=2.62$ ) recalled fewer total words compared to the low AS group ( $M=6.25, SD=2.49$ ).

## Conclusions

- Unexpectedly, people with high AS recalled fewer total words and fewer physical threat words compared to people with low AS.
- Such differences in the recall of emotional words between people may be due in part to initial encoding or memory retrieval biases.
- For example, those with high AS may fail to encode certain types of information in an attempt to prevent anxiety.
- The finding that the high AS group recalled fewer total words may also be indicative of more general memory deficits in those with greater levels of AS.
- Further research is needed to investigate exactly why those with high AS recalled fewer physical threat words and fewer total words.

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