

## **Anxiety Sensitivity Dimensions in the Prediction of Body Vigilance and Emotional Avoidance**

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*The present study evaluated 2 interrelated hypotheses concerning the relation between specific anxiety sensitivity dimensions and how one responds to bodily sensations in a population with no known history of psychopathology (N = 214). Specifically, the Physical Concerns subscale of the Anxiety Sensitivity Index (ASI; S. Reiss, R. A. Peterson, M. Gursky, & R. J. McNally, 1986) was found to be uniquely and statistically predictive of bodily vigilance, whereas the Mental Incapacitation ASI subscale was predictive of emotional avoidance. These effects were above and beyond the variance accounted for by demographic variables, treatment history for common interoceptive medical conditions, subclinical panic attack history, and trait anxiety. We discuss these findings in relation to differential predictive validity conceptualizations of anxiety sensitivity, with implications for understanding models of health functioning and panic disorder.*

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**KEY WORDS:** anxiety sensitivity; vigilance; avoidance; fear; panic; anxiety.

Anxiety sensitivity (AS) denotes a tendency to fear anxiety-related symptoms, based on beliefs that such sensations have negative somatic, cognitive, or social consequences (Reiss & McNally, 1985). As measured by the Anxiety Sensitivity Index (ASI; Reiss, Peterson, Gursky, & McNally, 1986), AS has three lower-order factors that all load on a single higher-order factor (Zinbarg, Mohlman, & Hong, 1999). The lower-order factors represent Physical Concerns, Mental Incapacitation Concerns, and Social Concerns, and the higher-order factor represents the global AS construct (Zinbarg, Brown, & Barlow, 1997).

At least four lines of evidence support the view that AS is associated with interoceptive-oriented emotional distress. First, panic disorder patients consistently

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have been found to report elevated levels of AS (Taylor, Koch, & McNally, 1992) and ASI scores are correlated with hypochondriacal and somatization-related concerns (Otto et al., 1998; Otto, Pollack, Sachs, & Rosenbaum, 1992). Second, prospective research has shown that AS predicts panic attacks in the naturalistic environment (Schmidt, Lerew, & Jackson, 1997, 1999). Third, specific AS dimensions predict unique aspects of anxious and fearful responding to bodily sensations across diverse populations (Schmidt et al., 1997; Zvolensky, Goodie, McNeil, Sperry, & Sorrell, 2001). Fourth, research examining ASI in relation to response to panicogenic challenge procedures have shown that AS is strongly related with a tendency to report greater panic, fear, and distress in response to such challenges, but not to experience greater autonomic arousal (Forsyth, Eifert, & Canna, 2000; Forsyth, Palav, & Duff, 1998; McNally & Eke, 1996; Schmidt, 1999; Zvolensky, Eifert, & Lejuez, 2001).

Overall, the aforementioned findings are consistent with theoretical conceptualizations that suggest certain threat-related expectations can promote anxiety-related responding (Kirsch, Mearns, & Catanzaro, 1990), and that specific dimensions of AS may be uniquely related to theoretically similar aspects of anxious and fearful responding (Cox, 1996). Yet, despite trends emphasizing the multidimensional nature of AS, surprisingly little is known about how such AS dimensions differentially predispose persons to catastrophically respond to bodily sensations, particularly in the context of cognitive processes related to health, illness, and anxiety-related suffering (Ingram, 1990). In regard to health, heightened AS may serve to increase the chance of detecting, experiencing, and perhaps reporting physical symptoms. Aside from any direct correspondence between the evaluation of somatic events and objective health status, such attention to, and reporting of, symptoms is important because they represent key components of health maintenance, decisions to seek medical treatment, as well as general health-protective behaviors (Cameron, Leventhal, & Leventhal, 1995; Pennebaker, 1982; Watson & Pennebaker, 1989). For example, persons facing life-threatening physical illnesses often become hypervigilant to signs of the disease (MacLeod & Hagan, 1992; Miller, Shoda, & Hurley, 1996). However, it is unclear whether repeated bouts of chronic illness, in turn, promotes the development of behaviors subsumed under the AS construct.

Contemporary models of panic emphasize that persons with panic disorder expect somatic events to be threatening, as indexed by an exaggerated vigilance for potentially dangerous bodily sensations (Bouton, Mineka, & Barlow, 2001). Specifically, heightened anxious responding occurs in response to bodily sensations perceived as dangerous, contributing to increased attention on somatic events (Barlow, 1988; Clark, 1986). Further, it has been suggested that a critical emotion regulation process that contributes to clinically significant bodily-oriented distress is the tendency to cope with such sensations through rigid and inflexible emotional avoidance tactics (Forsyth, 2000; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). In this context, emotion regulation denotes "the process by which individuals influence which emotions they have, when they have them, and how they experience and express them" (Gross, 1998, p. 275). Emotion regulation attempts aimed at *reducing* emotional distress can be conceptualized as coping processes (see Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Gross, 1998, for an extensive discussion of this issue). At the core of emotional avoidance conceptualizations of anxiety

pathology is the view that responding functionally directed at altering the form or frequency of aversive internal experiences (e.g., negative thoughts, bodily sensations) and the contexts that occasion them is a toxic process that distinguishes normal from disordered experiences of anxiety, fear, and even depression (Hayes, Strosahl, & Wilson, 1999). Accordingly, emotional avoidance, as a fundamental affect regulation process, would be expected to have important emotion processing consequences. In the case of panic disorder, for example, persons often attempt to chronically avoid situations believed to elicit such reactions (Chambless & Gracely, 1989) and/or abuse psychoactive substances in an effort to temporarily dampen unwanted cognitive or emotional responses (Kushner et al., 1996). Such rigid efforts to avoid or suppress bodily arousal in the short-term can promote human suffering (e.g., decreased social contact and interaction, restricted range of activities) and/or heightened physiological/emotional responsiveness in the long-term (e.g., physical reconditioning, thought and emotional rebound).

At this stage of research development, there are at least two predictions that can be made in regard to the role AS may serve in terms of responding to bodily sensations. First, AS should be related to the conscious allocation of attentional resources to signals of personal threat. Although preliminary, Schmidt and colleagues have recently found that the AS global dimension is positively correlated with bodily vigilance (Schmidt, Lerew, & Trakowski, 1997; Schmidt & Trakowski, 1999). Yet, given that specific dimensions of AS may represent different anxiogenic mechanisms (Taylor & Cox, 1998), it is important to extend these findings by exploring whether there is differential explanatory power associated with particular AS dimensions. With regard to panic attacks, a recent study by Zinbarg, Brown, Barlow, & Rapee (2001), involving a reanalysis of data from Rapee, Brown, Antony, & Barlow (1992), suggests that the AS Physical Concerns subscale is the strongest predictor of fearful responding to 5.5% carbon dioxide and hyperventilation challenge in persons suffering from anxiety-related disorders (see Rapee et al., 1992; Zinbarg et al., 2001). Yet, as the authors acknowledge, the relation between AS and challenge-induced anxiety is likely mediated by other general and/or relatively specific anxiety components. For instance, based upon panic disorder research and theory, one would expect AS Physiological Concerns to be uniquely related to bodily vigilance. Second, high levels of AS should be associated with responding aimed at preventing or delimiting the intensity/duration of physical sensations (i.e., emotional avoidance). Consistent with this perspective, persons with panic disorder often attempt to escape or avoid bodily sensations presumed to evoke catastrophic negative consequences (Barlow, 1991). Thus, it stands to reason that ASI Physiological Concerns, and perhaps Mental Incapacitation Concerns, should predict emotional avoidance.

The overall objective of the present project was to examine the differential predictive validity of specific AS dimensions with regard to two clinically significant constructs: body vigilance and emotional avoidance. It was hypothesized that the AS Physiological Concerns dimension would be uniquely and statistically predictive of bodily vigilance and emotional avoidance above and beyond demographic variables, treatment history for common cardiopulmonary medical conditions, panic attack history, and trait anxiety. At the outset, we wish to point out that this study examined such relations in a nonclinical population not contaminated by existing psychopathology.

The impetus driving the use of a nonclinical sample in the present case was to provide additional normative data about emotional regulation processes, but also to further isolate important psychological processes that co-occur with AS that may eventually contribute, in part, to the development of psychopathology and suffering.

## METHOD

### Participants

The original sample included 244 volunteers recruited from the University at Albany, SUNY, who received course credit in return for participation. Participants completed a comprehensive medical and psychiatric history screen, which included questions asking whether they had ever been treated for heart or respiratory dysfunctions (including asthma). These medical problems were specifically highlighted because they involve interoceptive perturbation and therefore theoretically could be associated with greater levels of bodily vigilance. In total, 2% ( $n = 5$ ) individuals had a positive history of heart problems and 17% indicated a positive history of asthma ( $n = 30$ ) or other types of respiratory dysfunction ( $n = 8$ ). In regard to psychiatric treatment history screening, participants were asked whether or not they (a) were currently being treated for a psychiatric problem, (b) had ever been treated by a professional for a psychiatric problem, and (c) had ever been treated for an emotional problem. Of the 244 individuals who had complete data for the entire evaluation, 12% ( $n = 30$ ) had a positive history of psychopathology using these criteria. Because the aim of the investigation was to examine psychological processes involved with bodily vigilance and avoidance processes not contaminated by psychopathology, we removed these 30 persons who had a current or past psychiatric treatment history.

The final sample included 214 volunteers (110 women and 104 men;  $M = 18.8$  years of age,  $SD = 2.1$ ) with no history of psychiatric problems or reported psychotropic medication use. The ethnic distribution was 129 (60%) Caucasian, 22 (10%) African American, 19 (8%) Asian American, 26 (12%) Latino, 1 (.4%) Native American, 13 (6%) other, and 4 (2%) did not specify. The educational background of the participants was 162 (76%) freshman, 41 (19%) sophomores, 7 (3%) juniors, and 4 (2%) seniors.

### Measures

#### *Anxiety Sensitivity*

The Anxiety Sensitivity Index (ASI; Reiss et al., 1986) was employed as a measure of anxiety sensitivity. The ASI is a 16-item questionnaire in which respondents indicate on a 5-point Likert-type scale (0 = *very little* to 4 = *very much*) the degree to which they expect negative consequences to arise from anxiety-related sensations. The ASI has good internal consistency in clinical and nonclinical populations and good test-retest reliability (Peterson & Reiss, 1992). Following the recommendations of Zinbarg et al. (1997), we utilized the lower-order factors, involving Physical

Concerns (Items 3, 4, 6, 8, 9, 10, 11, and 14), Mental Incapacitation Concerns (Items 2, 12, 15, and 16), and Social Concerns (Items 1, 5, 7, and 13). Although not without controversy, this solution has arguably been found to replicate most consistently across different populations (Zinbarg et al., 1999). The reliabilities of the lower-order scales in the present sample were as follows: Physical Concerns = .86, Mental Incapacitation Concerns = .83, and Social Concerns = .65. Similar reliabilities have been reported elsewhere (Zinbarg & Barlow, 1996). Because of the different number of items comprising each subscale, we utilized mean scores for the separate ASI indices in this study.

### *Body Vigilance*

The Body Vigilance Scale (BVS; Schmidt et al., 1997) was employed to assess attentional focus on interoceptive activity. The BVS is a 4-item instrument in which respondents indicate on an 11-point Likert-type scale (0 = *none* to 10 = *extreme*) the degree to which they agree with a particular statement regarding attentional focus on bodily sensations. Specifically, three of the items measure attentional focus, perceived sensitivity to changes in bodily sensations, and the average duration of time spent attending to bodily sensations. A fourth item involves having participants rate their attention to 15 bodily sensations, as defined by the *DSM-IV* physical symptoms for panic attacks. Responses to the fourth item are averaged to yield a single score for that item. Summing the four items derives a total score for the BVS. Research suggests that the BVS has adequate internal consistency in clinical and nonclinical populations and can be used to assess changes in bodily attention during cognitive-behavioral treatment for panic disorder (Schmidt et al., 1997).

### *Emotional Avoidance<sup>4</sup>*

The Acceptance and Action Questionnaire (AAQ; Hayes et al., submitted) is a 9-item self-report measure of emotional avoidance. Respondents rate the degree to which each statement applies to them on a Likert scale (1 = *never true* to 7 = *always true*). Research has demonstrated that a single-factor solution provides the best model fit, with avoidance items loading positively at one end, and acceptance/action items loading negatively at the other (Walser, Townsend, Wilson, & Hayes, 1996). The AAQ shows good concurrent validity in terms of its ability to predict higher levels of anxiety and depression (Hayes et al., 1996). Exploratory factor analysis (varimax rotation) in the present sample of nonclinical participants indicated a one-factor solution was apparent, accounting for approximately 25% of the overall variance; all items except for number six showed salient factor loadings ( $\geq .40$ ). Additionally, the internal consistency of the AAQ in our sample of participants was

<sup>4</sup>We first attempted to assess the emotional avoidance construct by using the Coping Styles Questionnaire (Roger, Jarvis, & Najarian, 1993), which includes a subscale to assess avoidance-oriented coping. However, the psychometric properties of the Avoidance subscale, as indexed by a confirmatory factor analysis among other scale properties (e.g., internal consistency), were questionable in this particular study. Thus, we opted to employ the AAQ, which was purposively developed to measure emotional avoidance (Hayes et al., 1996).

**Table I.** Zero-Order Relations Between Primary Psychological Predictor and Criterion Variables

Instrument	1	2	3	4	5	6	7	8	9
1. ASI (Physical Concerns)	—	.65	.45	.35	.47	.37	.44	.12	.04
2. ASI (Mental Incapacitation Concerns)	—	—	.32	.42	.31	.48	.38	.04	-.03
3. ASI (Social Concerns)	—	—	—	.25	.34	.31	.21	.03	-.03
4. AAQ	—	—	—	—	.15	.56	.20	.09	.14
5. BVS	—	—	—	—	—	.21	.21	.14	-.04
6. STAI-T	—	—	—	—	—	—	.31	.06	.09
7. Panic Attack History	—	—	—	—	—	—	—	.02	-.18
8. Gender	—	—	—	—	—	—	—	—	-.11
9. Ethnicity	—	—	—	—	—	—	—	—	—

*Note.*  $N = 214$ . ASI: Anxiety Sensitivity Index (Reiss et al., 1986); BVS: Body Vigilance Scale (Schmidt et al., 1997); AAQ: Acceptance and Action Questionnaire (Hayes et al., 2001); STAI-T: Spielberger Trait Anxiety Scale (Spielberger et al., 1983). Gender was dummy coded such that 1 = male and 2 = female.

.70, indicating adequate levels of reliability (Nunnally, 1978). Emotional avoidance, as measured by the AAQ, also is empirically distinct from other psychological constructs implicated in panic disorder (Hayes et al., submitted). Forsyth, Parker, and Finlay (in press), for instance, found the global index of the anxiety sensitivity construct, as measured by the 16-item ASI total score, shared only 9% of variance with the AAQ in an inpatient residential substance abuse population. Stewart, Zvolensky, and Eifert (in press) found similar findings among a nonclinical population (see also Table I in the present report). Thus, the AAQ measures a psychological construct that is related to, but distinct from, anxiety sensitivity. Importantly, more recent research also has indicated that persons high compared to low in emotional avoidance, as indexed by the AAQ, respond with greater anxiety-related distress to biological challenge (Feldner, Zvolensky, Eifert, & Spira, in press).

### *Panic Attack History*

The Panic Attack Questionnaire – Revised (PAQ-R; Cox, Endler, Swinson, & Norton, 1992) provides a definition of a panic attack, a list of *DSM-IV* panic symptoms, followed by frequency and intensity criteria. Additionally, participants were asked to indicate whether or not they had a panic attack in the last 6 months. Previous research has found that individuals reporting high PAQ scores (i.e., a positive history of panic attacks) demonstrate elevated levels of anxiety sensitivity, somatic sensations, and general anxiety levels relative to those persons scoring low on the PAQ (Margraf & Ehlers, 1988). If a participant reported at least one unexpected panic attack in the last 6 months (Brown, 1994), they were considered to have a positive panic attack history.<sup>5</sup> In the present study, 22% ( $n = 48$ ) individuals indicated a positive personal panic attack history, a finding consistent with other research assessing panic attack status in nonclinical populations (Brown & Deagle, 1992; Cox et al., 1991).

<sup>5</sup>The pattern of results for all analyses did not change when a more conservative definition of panic attacks was employed.

*Anxiety-Based Negative Affect*

The Spielberger Trait Anxiety Inventory Form-Y (STAI-T; Spielberger, Gorsuch, Lushene, Vagg, Jacobs, 1983) is a face valid 20-item scale designed to index trait (chronic) anxiety. Participants respond to each item on a 4-point Likert-type scale, anchored from 1 = *no anxiety* to 4 = *extreme anxiety*. Scores are computed by summing responses, and reverse scoring when appropriate. The STAI-T is a reliable and valid measure of trait anxiety that is commonly employed in anxiety research with clinical and nonclinical populations (Spielberger et al., 1983). Although trait anxiety has been found to be partially confounded with depression (e.g., Kennedy, Schwab, Morris, & Beldia, 2001), it has been the most frequently employed measure of trait-like negative affect in anxiety disorders research involving the ASI. This index could theoretically tap a tonic level of negative emotionality, a key component of psychopathology models of anxiety and depression (Mineka, Watson, & Clark, 1998; Watson, 1999). At the same time, by including this measure in the present study, we could facilitate comparability with existing AS research.

**Procedure**

After providing informed consent, participants completed the assessment instruments anonymously in a mass testing format. The measures were randomly ordered so as to decrease the probability of response set biases. Participants were debriefed as to study objectives prior to their departure.

**RESULTS**

Zero-order correlations were first computed between each of the predictor variables and each of the dependent measures (see Table I for correlations for primary psychological variables). For these analyses, dummy codes were used for gender and ethnicity. The results indicated that ASI Physical Concerns subscale and Mental Incapacitation subscale had a correlation of .65, approximately 42% shared variance. This correlation indicates that these AS dimensions are tapping a related yet distinct psychological construct, as have also been shown through factor analytic studies (Zinbarg et al., 1997). The correlation between ASI Physical Concerns and Mental Incapacitation subscales with ASI Social Concerns was comparatively lower (.45 and .32, respectively). As the reliabilities of the ASI Physical and Mental Incapacitation Concerns did not statistically differ from one another (see Method section), it is unlikely that the observed results can be attributed to the relatively higher reliability for the ASI Physical Concerns Subscale (DeVellis, 1991). The ASI Physical Concerns had the highest correlation with the BVS (.47), whereas the Mental Incapacitation Concerns had the lowest (.31). In terms of emotional avoidance, the Mental Incapacitation Concerns had the highest correlation (.42) relative to each of the other ASI dimensions.

Hierarchical multiple regression analyses were performed with each of the primary dependent measures. Independent variables were divided into five levels in

the hierarchy: (1) demographic variables (i.e., gender, age, ethnicity, and education) were at level one, (2) medical-related history variables of ever having been treated for respiratory problems (including asthma)<sup>6</sup> and heart problems were included at level two, (3) self-classified panic attack history at level three, (4) trait anxiety at level four, and (5) the three anxiety sensitivity dimensions at level five. For Steps 1–4 of the regression equations, variables were entered into the analyses; each variable that met criteria for entry ( $p$  to enter  $.05$ ) and did not subsequently meet criteria for removal ( $p$  to remove  $.10$ ) was retained. For the fifth level of the regression equations, we utilized a stepwise method of variable selection, which allows one to enter the variables into the equation according to the strength of their association with each primary dependent variable (Tabachnick & Fidell, 1996). This approach is most consistent with our original aims of evaluating differential predictive validity of the ASI dimensions. Semipartial correlations ( $sr^2$ ) were included to represent effect sizes only for those variables retained in the equation; this index represents the proportion of total criterion variance for variable  $X$  uniquely accounted for by predictor variable  $Y$ .

For bodily vigilance, there was nonsignificant variance associated with the first four levels of the equations ( $R^2 = .13$ ); only gender entered the equation. After controlling for the nonsignificant effects of the variables on the first four levels, the ASI physiological dimension significantly added to the prediction of body vigilance ( $\Delta R^2 = .25$ ,  $p < .01$ ,  $R^2 = .38$ ). Given that each of the ASI subscales contains variance due to the general AS factor (Zinbarg et al., 1997), we statistically controlled for the variance of the Mental Incapacitation and Social Concerns subscales in this analysis. The semipartial correlation for the Physical Concerns subscale was  $.11$ .

In regard to the prediction of emotional avoidance, none of the variables entered in the first, second, or third levels of the equation contributed in a meaningful manner to the model. However, trait anxiety contributed in a statistically significant fashion ( $\Delta R^2 = .31$ ,  $p < .01$ ,  $R^2 = .46$ ). After controlling for the contributions of the variables entered for levels 1–4, only the ASI Mental Incapacitation Concerns subscale significantly predicted emotional avoidance ( $\Delta R^2 = .11$ ,  $p < .05$ ). The semipartial correlation for the Mental Incapacitation Concerns subscale controlling for the variance attributed to the two other ASI subscales was small ( $sr^2 = .05$ ).

## DISCUSSION

Available evidence has demonstrated that elevated levels of AS are associated with an increased risk of anxious and fearful responding to bodily events (McNally, 1994; Schmidt & Trakowski, 1999; Schmidt et al., 1997). The present study sought to test two predictions based on contemporary models of health functioning (Pennebaker, 1982) and panic disorder (Bouton et al., 2001) by examining how specific AS dimensions relate to the allocation of conscious attentional resources and the general tendency to avoid emotionally evocative events.

<sup>6</sup>Because there was no differential (statistically significant) relations between asthma and other types of respiratory problems with any of the other variables, we collapsed across these two indices to create one respiratory dysfunction variable.

In regard to bodily vigilance, participants who reported greater AS physiological concerns also reported higher levels of internal attentional focus. Furthermore, this same AS dimension demonstrated incremental validity in the prediction of BVS scores above and beyond demographic variables, medical treatment history, panic attack history, and trait anxiety. The social and cognitive AS dimensions did not contribute in a statistically significant manner in this equation, suggesting that the greater level of correspondence between specific AS dimensions may be uniquely related to theoretically similar aspects of negative emotional responding. This finding is consistent with a growing body of research indicating that specific AS dimensions may represent different psychological pathways in anxious and fearful responding (Taylor & Cox, 1998). At the zero-order level, these results also help to distinguish bodily vigilance from the AS construct, as the relation between the BVS and AS dimensions ranged from .31 (Mental Incapacitation Concerns) to .47 (Physical Concerns). Accordingly, even for the most robust correlation between AS Physical Concerns and bodily vigilance, there was no more than 22% shared variance between the two variables.

Contrary to expectation only the AS Mental Incapacitation Concerns subscale demonstrated predictive validity in terms of emotional avoidance. Yet, the relative size of this effect was small. The overall lack of a strong association between specific AS dimensions and emotional avoidance may be a product of the sample studied, namely, a psychologically healthy group of young adults. Perhaps strong association with AS dimensions and emotional avoidance only emerges with the onset of specific types of anxiety pathology, or following a prolonged history of struggle with unwanted emotional events. Somewhat surprisingly, trait anxiety, as measured by the STAI-T, showed the greatest predictive validity in terms of emotional avoidance, suggesting that anxiety-based negative emotionality is generally associated with a tendency toward emotional avoidance. Future research will need to provide a more sophisticated test of this observation, according to the tripartite model of emotional disorders (Watson, 1999), which describes the common and unique temperamental components of anxiety and depressed states. It may be that a global negative affect dimension provides a psychological basis for emotional avoidance tendencies, yet without sufficient vulnerabilities (e.g., dysfunctional learning experiences, genetic predispositions), particular relationships with somatic arousal and/or low positive emotionality will not be evident. Clearly, this area warrants future empirical work with scales that can more definitively isolate the temperamental components identified in the tripartite model (Watson, 1999).

There are a number of interpretive caveats and directions for future study that warrant consideration. First, although there are now numerous measures that can be used to assess a wide range of AS dimensions (Taylor & Cox, 1998), the present study utilized the 16-item ASI because it is the most well-established instrument of its type. Yet, research has only begun to address the nature and phenomenology of AS, and research is clearly needed addressing factors that contribute, either in whole or in part, to the construct, including historical variables, family influences, and learning. The present findings are consistent with arguments for viewing AS as a multidimensional construct that may change within individuals over time. Second, given that self-report measures were utilized as the assessment methodology, method variance

may have contributed, at least in part, to the observed results. To address this concern, future research should employ other assessment methodologies, including experimental cognitive methodologies that tap both strategic and automatic aspects of psychological processes involved with the fear of bodily sensations (McNally, 1998). Third, as the study aims were focused on ascertaining basic psychological processes associated with AS dimensions at this stage of research development, we did not study a specific clinical population. Although tentative, we anticipate that the cognitive AS domain would be significantly related with avoidance responding in a clinical sample, particularly as patient attributions about the nature of their symptoms appear tied to their verbal constructions about outcomes, and particularly constructions about anticipated negative consequences. Thus, future research could extend these findings in a meaningful way by studying patients with interoceptive-related medical (e.g., cancer) and psychological dysfunctions (e.g., panic disorder). Finally, though the results are consistent with the hypotheses that specific AS dimensions predict body vigilance and emotional avoidance, the direction of this relation cannot be determined within the context of the cross-sectional correlative design used here.

In summary, the results of this study, in conjunction with other recent psychopathology evidence, are consistent with the view that individual differences in AS differentially account for unique aspects of how one responds to threatening events. These results converge and uniquely extend the existing evidence that AS is not merely a consequence of panic and related psychopathology, but functions as an important predictor of threat-related psychological processes. How such relations change as one moves from a normal to a disordered experience of anxiety and fear remains a fecund area for future basic and applied psychopathology research.

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