

CLAUSTROPHOBIC FEAR BEHAVIOR: A TEST OF THE EXPECTANCY MODEL OF FEAR

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Summary—The present study examined Reiss and McNally's expectancy model in the prediction of claustrophobic fear, measured across three domains. Non-clinical subjects ($N = 117$) reporting claustrophobic concerns were administered a behavioral approach test to a claustrophobic chamber. Consistent with the expectancy model, danger expectancy, anxiety expectancy and the interaction of anxiety sensitivity and anxiety expectancy accounted for unique portions of behavioral performance, with other variables partialled out. The expectancy model variable set, however, did not meaningfully relate to subjective fear or heart-rate reactivity. The formulation of anxiety sensitivity as a measure of the salience of anxiety is discussed. These findings lend support to the theory as a model for the behavioral dimension of pathological fear, but not the subjective or physiological facets.

INTRODUCTION

What mechanisms underlie human fear behavior? Theories of anxiety have shifted away from classical learning theories towards cognitive models (e.g. Rachman, 1980; Kirsch, 1985; Foa & Kozak, 1986; Bandura, 1988). In an attempt to explain how human fears develop in the absence of a reliable CS-US pairing, Reiss (1980) proposed the expectancy model of fear.

The expectancy model of fear posits that what is acquired through associative learning is an expectation regarding the US in the presence of a CS. This model has been developed by Reiss and McNally (1985), and further elaborated by Reiss (1991). Reiss and McNally (1985) express the expectancy model in terms of the following formula:

$$Fb = Ed + (Ea \times Sa).$$

The first component posited to underlie fear behavior (Fb), the tendency to avoid a feared stimulus, is the expectation of danger (Ed) associated with a specific external situation or object. The second component is the product of two variables: the expectation of anxiety (Ea) and anxiety sensitivity (Sa). This component of the expectancy model involves both the level of anxiety expected upon exposure to the feared situation or object, and the salience that anxiety has for the individual.

According to Reiss and McNally (1985), danger expectancy refers to the degree to which one has learned that the feared stimulus reliably signals external danger. Danger appraisals play a prominent role in other theoretical accounts of pathological fear. For instance, according to Beck and Emery (1985): "the main problem in the anxiety disorders is not in the generation of anxiety but in the overactive cognitive patterns (schemas) relevant to danger that are continually structuring external and/or internal experiences as a sign of danger" (p. 15). Individuals show a wide range of variation in the amount of harm they expect from a given situation (Gursky & Reiss, 1987). Danger expectancies appear to be largely independent from each other, fearful reactions may be circumscribed to specific situations or objects, such as airplanes or snakes (Gursky & Reiss, 1987). While some studies have found self-reported expectations of danger to be a predictor of fearful avoidance behavior (e.g. McNally & Steketee, 1985), others have not (Williams & Watson, 1985). The evidence for expectations of danger has certainly not ruled out other cognitive factors, such as anxiety expectancies, as motivating fear behavior. For example, animal phobics also report anticipation of panic attacks and embarrassment upon encountering feared animals (McNally & Steketee, 1985).

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Anxiety expectancies have been suggested as a potent contributor to phobic fear and avoidance (Kirsch, 1985; Kirsch, Tennen, Wickless, Saccone & Cody, 1983). "Because the experience of intense fear is extremely aversive, the expectancy of its occurrence provides strong motivation for avoidance" (Kirsch, 1985, p. 1192). Telch, Brouillard, Telch, Agras and Taylor (1989b) found panic disorder patients' expectations of panic were the most influential correlate of panic-related avoidance. Williams, Kinney & Falbo (1989), however, reported that anxiety expectancy did not predict behavioral approach after controlling for self-efficacy.

The processes through which anxiety expectations motivate fear have received some attention. For instance, it has been suggested that some individuals may view anxiety as a potent negative reinforcer, while other individuals may view anxiety with somewhat less concern (Reiss, Peterson, Gursky & McNally, 1986b). The Anxiety Sensitivity Index (ASI; Peterson & Reiss, 1987) was developed to measure individual differences in "the reinforcing effectiveness of the sensations of anxiety" (Reiss, 1991, p. 142). Anxiety sensitivity is construed as a personality variable that may depend on biological factors, such as autonomic reactivity, as well as the individual's learning history with respect to anxiety.

The construct validity of anxiety sensitivity has been examined in several ways. Factor analytic studies have shown the ASI to tap a dimension separate from specific danger expectancies, i.e. fear of flying; fear of heights; and fear of public speaking (Gursky & Reiss, 1987), and separate from fears of injury and fears of rejection (Reiss, Peterson & Gursky, 1988). Anxiety sensitivity is elevated in a variety of anxiety disorders, including agoraphobia, post-traumatic stress disorder, simple phobias and stress-related illness (for a review, see Reiss, 1987). Maller and Reiss (1988) report a 3-yr test-retest reliability of 0.71. Moreover, there is suggestive evidence that anxiety sensitivity may operate as a risk factor for the later development of anxiety disorders (Maller, 1988). The ASI has been shown to account for significant portions of specific fears, even when general anxiety level and injury sensitivity were partialled out (Reiss, Peterson & Gursky, 1988). While there is evidence that the ASI may tap several distinct appraisal domains (Telch, Shermis & Lucas, 1989a), anxiety sensitivity appears to be a stable dimension that is distinct from trait or state anxiety (Peterson & Reiss, 1987; Reiss, Peterson, Gursky & McNally, 1986a).

While danger expectancy, anxiety expectancy and anxiety sensitivity have been studied separately, the manner in which these variables operate together has not been examined. The aim of this study was to examine the singular and joint effects of these three appraisal dimensions on claustrophobic fear, as predicted by the expectancy model (Reiss & McNally, 1985).

The mathematical presentation of the expectancy model lacks clarity in two ways. First, Reiss and McNally (1985) do not provide information on the differential weighting of the two variables that comprise the product term ($Ea \times Sa$).^{*} Second, the product term ($Ea \times Sa$) incorporates three contributory effects: the linear contribution of expectations of anxiety (Ea), the linear contribution of anxiety sensitivity (Sa) and the interactive contribution of these two variables. Reiss and McNally do not specify which of these three effects are most influential. However, by including the product term, Reiss and McNally clearly imply that the interaction of these two variables adds a unique contribution to the motivation of fear behavior. Reiss and McNally's discussion also implies that expectations of anxiety (Ea) should be salient in motivating fear behavior, even at low levels of anxiety sensitivity (Sa). Finally, Reiss and McNally imply that anxiety sensitivity (Sa) is important only in its relationship to expectations of anxiety (Ea). In other words, in the absence of expectations of anxiety (Ea), anxiety sensitivity (Sa) should have no effect on fear behavior. This operationalization is consistent with the model's original formulation (McNally, Personal Communication, 12 Nov. 1991).

Several predictions of Reiss and McNally's (1985) expectancy model were examined: (a) expected danger will be positively associated with claustrophobic behavioral approach with other variables in the model partialled out; (b) anxiety expectancy will be positively associated with claustrophobic

^{*}Multiplying scales scores of the two constructs will largely reflect arbitrary decisions about the units of measurement of those scales. For example, consider if the units of measuring expectations of anxiety (Ea) are twice as large as the units of measuring anxiety sensitivity (Sa). In such a case, the product of the two scale scores would reflect expectations of anxiety (Ea) much more than if the units of measuring expectations of anxiety (Ea) are half as large as the units of measuring anxiety sensitivity (Sa). While Reiss and McNally (1985) do not provide explicit directions on this measurement issue, we assumed that the variables should be weighted equally.

behavioral approach with other variables in the model partialled out; (c) the interaction of expected anxiety and anxiety sensitivity will predict claustrophobic behavioral approach with other variables in the model partialled out; and (d) anxiety sensitivity will not predict claustrophobic behavioral approach with other variables in the model partialled out. These predictions were either explicitly stated or were implicit in their formulation. In addition to examining the behavioral domain of claustrophobic fear, this study utilized a tripartite approach in the assessment of claustrophobic fear in order to explore the applicability of the expectancy model to the subjective and physiological domains.

METHOD

Subjects

Subjects' participation in this experiment fulfilled partial requirement for introductory psychology classes at the University of Texas at Austin. From a large pool ($N > 5200$) of introductory psychology students, 117 students reporting marked fear of claustrophobic situations took part in this study. Selection was based on a responses indicating moderate or higher fear on each of two screening items [i.e. (a) overall fear of closed-in spaces, and (b) fear associated with entering a very small, pitch-dark, narrow closet and remaining there for several minutes]. Each item was rated on a 5-point Likert scale (none, mild, moderate, severe, extreme). The 117 students that agreed to participate in the study represented the most claustrophobic 2% of the original *S* pool. The sample was predominantly white (97%) and consisted of 94 women and 23 men with a mean age of 18.9 ($SD = 1.9$). This sample is also described in Telch, Ilai, Valentiner and Craske (1992a).

Procedure

Prior to exposure to the claustrophobic chamber, each *S* was fitted with a heart-rate unit by a female undergraduate research assistant. The ambulatory heart rate monitor (UNIQ Heartwatch Model 8799, Computer Instruments Corp.) consists of an electrode belt worn around the chest which transmits heart-rate signals to a wrist receiver that depicts and stores the heart-rate data. The unit also has a built-in event marker which was used to indicate when *S*s entered and exited the experimental chamber. Each *S* was instructed to sit quietly for 5 min while resting heart-rate data were collected. Heart-rate was monitored continuously during *S*s' exposure to the claustrophobic chamber.

Following the 5-min rest period, each *S* completed the ASI. The experimenter then partially opened the door of the experimental chamber (approx. 30°) and instructed the *S* to look inside for 5 sec. The *S* was then told that they would be asked to enter this dark narrow corridor several times. They were informed that the door would remain unlocked and they would be free to leave the room at any time. The *S* was encouraged to remain in the corridor as long as they could. Subjects were also informed that the experimenter would open the door to let them know when the trial had ended.

The door of the chamber was then shut, and each *S* was instructed to complete a pre-exposure questionnaire that included measures of expected anxiety and expected danger. Upon completion of the pre-exposure questionnaire, the *S* was asked to enter the chamber and to walk to the very end without stopping or looking back. The experimental chamber consisted of a long, dark, narrow observation corridor measuring 11.40 m (length), 0.57 m (width) and 2.29 m (height). As the *S* walked into the chamber, the experimenter depressed the event button on the heart-rate monitoring unit to mark the beginning of the exposure trial. Upon reaching the back wall, the *S* was instructed to remain there for as long as possible and was reminded that the exit door was unlocked.

Instructions outlining specific exit procedures were also provided. Subjects were told that once they left the back wall, they were to continue without stopping to the exit door and leave, even if upon approaching the exit door their discomfort/anxiety was reduced to a manageable level. Moreover, *S*s were reminded that the experimenter would open the door to signal the end of the trial. Subjects were not informed of the duration of exposure.

If the *S* remained in the chamber for the full 2 min, the experimenter opened the door and instructed the *S* to exit. When the *S* exited the chamber, the experimenter depressed the event

button on the heart-rate monitoring unit to mark the end of the exposure trial and recorded the duration of exposure (in sec). Immediately upon exiting, the *S* rated their subjective fear level.

Subjects completed 2 behavioral approach test trials. Both trials included the pre-exposure questionnaire, the self-directed exposure and the post-exposure questionnaire, with heart rate and performance measures. Since expectancies become more accurate over exposure trials (Rachman & Bichard, 1988), the current study examines the results of the second exposure trial.* Subjects were debriefed following the second trial.

Measures

Expected danger. Immediately prior to entering the claustrophobic chamber, *Ss* rated their perceived danger associated with entering the chamber and remaining there for 2 min on an 11-point Likert scale, ranging from 0 (no danger) to 100 (very dangerous).

Expected anxiety. Immediately prior to entering the claustrophobic chamber, *Ss* rated their expected fear associated with walking to the end of the chamber and remaining inside for 2 min, on an 11-point Likert scale, ranging from 0 (no fear) to 100 (very severe).

Anxiety sensitivity. Subjects completed the 16-item Anxiety Sensitivity Index. The ASI is designed to assess concern about possible negative consequences of anxiety. For each item, responses were measured using a five-point Likert scale ranging from 0 (very little) to 4 (very much). The ASI score was computed by summing across responses to the 16 items. Internal reliabilities reported for the ASI typically range around 0.90 (e.g. Gursky & Reiss, 1987; Telch *et al.*, 1989).

Behavioral performance. The duration of stay in the claustrophobic chamber was recorded for each *S*. Subjects were allowed to stay in the chamber for a maximum of 120 sec, but were not informed of this limit. Behavioral approach was defined as the duration (in sec) of self-directed exposure to the experimental chamber.

Subjective fear. Immediately upon exiting the claustrophobic chamber, *Ss* rated the maximum level of anxiety they experienced while in the chamber, on an 11-point Likert scale, ranging from 0 (no fear) to 100 (very severe).

Heart-rate reactivity. Subjects' resting heart-rate was monitored continuously during the 5-min resting period. The heart-rate monitor recorded the average heart-rate during each 15 sec interval. Baseline heart-rate was computed as the mean of the resulting 20 heart-rate averages. Subjects' heart-rate during exposure to the claustrophobic chamber was also recorded every 15 sec and averaged to produce a single index. Heart-rate reactivity was defined as heart-rate during exposure minus baseline heart-rate.

RESULTS

Analytic strategy

A central consideration in the choice of variables to represent the expectancy model was the desire to evaluate the relative influences of the different contributory effects incorporated in the model. In order to represent the danger component (*Ed*), *Expected Danger* was included in each of the regression models. The anxiety component (*Ea* × *Sa*) was represented in the independent variable set by three variables: *Expected Anxiety*; *ASI*; and *EA* × *ASI*.† While *Expected Anxiety* and *ASI* represent the linear contributions of anxiety expectancy (*Ea*) and anxiety sensitivity (*Sa*), respectively, the product of the standard scores of *Expected Anxiety* and *ASI* (i.e. *EA* × *ASI*) represents the unique contribution associated with the interaction between these two variables.

*The fact that expectancies become more accurate over exposure trials led us to predict that the expectancy model would apply during the second trial, i.e. after an initial training trial. Analyses of the data from the first exposure trial resulted in similar results, with the following exceptions: *Expected Danger* added a significant unique contribution to the prediction of Subjective Fear, *Expected Anxiety* and the interaction effect accounted for only marginally significant unique portions of Behavioral Performance, and *Expected Anxiety* was not significantly associated with Heart-Rate Reactivity. The increase in accuracy over trials, using this data set, is discussed in Telch *et al.* (1989).

†Analyses were also conducted operationalizing the anxiety component using a single variable. This variable was defined as the product of anxiety sensitivity and anxiety expectancy, each variable expressed in standard units. In these alternative analyses, the same pattern of results emerged, with nearly identical multiple R-squareds. Those analyses do not, however, provide information about the relative contribution of the linear and interactive aspects of the anxiety component. The more informative analyses are reported above.

Since Reiss and McNally's (1985) expectancy model does not specify the differential weighting of these two variables, the standard scores were used. The variable $EA \times ASI$ is the product of these standard scores. Representation of the expectancy model using these four variables provided a test of the model's overall predictive value as well as allowing for tests of the influence of individual contributory effects. This operationalization of the expectancy model formula is consistent with its authors intentions (McNally, Personal Communication, 12 Nov. 1991).

Simultaneous multiple regression analyses were calculated for each of the 3 dependent measures (i.e. *Behavioral Performance*, *Subjective Fear* and *Heart Rate Reactivity*). Means and standard deviations for the dependent measures and the measures that comprise the independent variable set are presented in Table 1.

While *Behavioral Performance* and *Subjective Fear* were modestly correlated ($r = -0.44$, $P < 0.001$), these variables were not closely associated with *Heart Rate Reactivity*. The correlation between *Behavioral Performance* and *Heart Rate Reactivity* was small ($r = -0.19$, $P < 0.05$). The correlation between *Subjective Fear* and *Heart Rate Reactivity* was not significant ($r = 0.16$).

Behavioral approach

The expectancy model variable set predicted approx. 38% of the variance in *Behavioral Performance* [$F(4, 111) = 16.76$, $P < 0.001$]. Three variables, *Expected Danger*, *Expected Anxiety* and $EA \times ASI$ were significantly related to *Behavioral Performance*, with all other variables in the independent variable set partialled out. *ASI* did not provide a unique contribution to this regression model. The directions of these beta coefficients were negative, the direction predicted by the expectancy model. These results are presented in Table 2.

Subjective Fear

The expectancy model variable set predicted a significant portion of *Subjective Fear* [$F(4, 112) = 48.84$, $P < 0.001$], accounting for 63.6% of the variance in *Subjective Fear*. Only *Expected Anxiety* was significantly related to *Subjective Fear*, with all other variables in the independent variable set partialled out. These results are presented in Table 2.

Heart Rate Reactivity

The expectancy model variable set did not significantly predict *Heart Rate Reactivity* [$F(4, 109) = 2.04$, *NS*]. The zero-order correlations between the four independent variables and *Heart Rate Reactivity* were also non-significant, with the exception of *Expected Anxiety* ($r = 0.18$, $P < 0.05$). These results are presented in Table 2.

Table 1. Means and standard deviations for criterion and predictor variables

Criterion variable	N	Mean	SD
<i>Behavioral approach</i>	116	106.30	30.25
<i>Self-reported fear</i>	117	44.76	27.00
<i>Heart rate reactivity</i>	114	7.97	7.88
Predictor variable			
<i>ASI</i>	117	23.60	9.43
<i>Expected danger</i>	117	29.40	31.11
<i>Expected anxiety</i>	117	43.32	32.13

Table 2. Zero-order, partial and multiple correlations for behavioral approach, subjective fear and psychophysiological response with the expectancy model variable set

	Zero-order	Partial <i>r</i>	Multiple <i>R</i>
Behavioral approach (performance time)			
Expected danger	-0.55***	-0.33**	
Expected anxiety	-0.54***	-0.30*	
ASI	-0.22*	-0.07	
ASI x EA	+0.09	-0.17*	
<i>Overall regression</i> (<i>N</i> = 116)			0.61***
Subjective fear (self-reported fear)			
Expected danger	+0.63***	+0.12	
Expected anxiety	+0.79***	+0.66***	
ASI	+0.36***	+0.09	
ASI x EA	+0.18	-0.07	
<i>Overall regression</i> (<i>N</i> = 117)			0.80***
Psychophysiological response (heart rate reactivity)			
Expected danger	+0.01	-0.27	
Expected anxiety	+0.18*	+0.40***	
ASI	+0.02	-0.05	
ASI x EA	+0.00	+0.00	
<i>Overall regression</i> (<i>N</i> = 114)			0.26

* $P < 0.05$.
 ** $P < 0.01$.
 *** $P < 0.001$.

DISCUSSION

Within this non-clinical sample, our findings provide support for the utility of the Reiss and McNally (1985) expectancy formulation in predicting the behavioral component of claustrophobic fear. This was not the case for the subjective or physiological fear responses. While expected anxiety showed a strong relationship with subjective fear, the other expectancy model variables did not add significantly to the prediction of subjective fear. Further, the expectancy model variables, when entered as a set, did not predict the physiological component of fear as measured by heart-rate reactivity. These results lend some support to Reiss and McNally's (1985) theory as modeling the behavioral facet of fear, but not the subjective or physiological aspects.

Four specific hypotheses derived from the Reiss and McNally expectancy model were tested in this study. Consistent with the first hypothesis, danger expectancy was significantly related to behavioral approach with other variables partialled out. The contribution of danger expectancy in predicting behavioral performance exceeded that of any of the other variables studied. These results are consistent with the research findings of McNally and Steketee (1985) and with Beck's cognitive theory of anxiety disorders (Beck & Emery, 1985), suggesting that expectations of danger play an important role in fear behavior.

Consistent with the second hypothesis, anxiety expectancy contributed uniquely to fear behavior. This finding is consistent with the assertion by Kirsch (1985) that expectations of anxiety provide strong motivation for avoidance, and provides further evidence that expected anxiety is closely associated with subsequent fear behavior (Rachman & Bichard, 1988; Kirsch, Tennen, Wickless, Saccone & Cody, 1983).

The expectancy model posits that the influence of anxiety expectancy on fear behavior will be moderated, in part, by one's level of anxiety sensitivity (Hypothesis 3). Specifically, those displaying heightened sensitivity to cues associated with anxiety are hypothesized to show greater actual fear in situations that evoke expectations of anxiety. This hypothesis was supported by our finding that the interaction of anxiety expectancy and anxiety sensitivity accounted for a unique portion of the variance in behavioral approach with other variables partialled out; thus supporting the differential salience of anxiety expectancies. From these findings, it appears that anxiety expectancy is a more potent predictor of fear behavior for individuals who are high in anxiety sensitivity than for individuals that are less concerned about the possible consequences of anxiety.

Consistent with the fourth hypothesis, the unique contribution of anxiety sensitivity was not significant. The significant zero-order correlation with behavioral approach reflects the colinearity with the other variables in the model. These results suggest that research into anxiety sensitivity should examine the way in which it interacts with expected and subjective fear.

Our findings suggest that Reiss and McNally's (1985) expectancy model may be limited to explaining the cognitive mechanisms underlying avoidance motivation. Only expected anxiety explained a unique portion of subjective fear, with other variables controlled for. Expected anxiety accounted for a large portion of the variance of subjective fear, leaving little left over for other variables to explain. Our analyses of subjective fear may not provide a powerful test of the contributions of all variables in the expectancy model variable set. Despite the ceiling effect associated with our measure of behavioral performance, the results for behavioral performance are consistent with the four hypotheses derived from the expectancy model of fear (Reiss & McNally, 1985).

Several limitations deserve comment. First, the ceiling effect associated with the measure of behavioral approach limits the interpretative value of our findings. Given that many of the *SS* in this study were able to remain in the experimental chamber for the entire 2-min, the *R*-squared associated with this regression equation probably represents an underestimate of the relationship between these cognitive variables and behavioral approach.

A second limitation was the way in which danger expectancies were measured. Our use of a global index of danger expectancy may not capture the specific threat concerns associated with claustrophobia. Danger expectancies have been distinguished as internal vs external (Beck & Emery, 1985), may be dependent upon specific stimulus characteristics (Telch, Valentiner, Ilai, Petruzzi & Hehmsoth, 1992b) or may vary across stimulus domains (Gursky & Reiss, 1987). Following the recommendation of Gursky and Reiss (1987), we are now testing the utility of

domain-specific measures of entrapment and suffocation concerns in predicting claustrophobic fear and avoidance.

The current study did not examine other cognitive appraisal variables previously proposed to impact pathological fear. For instance, Bandura's (1988) self-efficacy construct should be examined with the expectancy model variable set. We are currently examining a measure of coping self-efficacy in the claustrophobic domain to better understand the relationship between these two cognitive models of fear.

The behavioral component that typically characterizes phobias is avoidance. Our operationalization of fear behavior, however, could be characterized as escape. Our results support Reiss and McNally's (1985) formulation as a meaningful model of escape behavior, but do not necessarily apply to other types of fear behavior. Future research might examine the applicability of the expectancy model of fear to naturally occurring avoidance tendencies.

Our results support the view that anxiety sensitivity influences the degree to which anxiety expectancy impacts escape tendencies. However, it should be noted that the high correlation between expected anxiety and subjective fear makes it difficult to determine whether ASI interacts with expectations of anxiety or with subjective fear, in motivating escape tendencies.*

Phobic avoidance may occur even in the absence of fear-provoking stimuli. Avoidant tendencies are not necessarily preceded by subjective fear experiences; thus subjective fear cannot be a necessary condition for avoidance. While only expectations of anxiety precede avoidance, both expectations of anxiety and subjective fear precede escape behavior. While expected anxiety and subjective fear impact each other (Rachman & Bichard, 1988), the close relationship between these variables makes it difficult to test the expectancy model's assertion that expected anxiety, rather than subjective fear, is a proximal cause of fear behavior.

The expectancy model posits that for some phobics, expectations of danger may play a more prominent role in maintaining fear behavior, whereas with others, unrealistic expectations of anxiety may be more influential. Ongoing assessment of anxiety and danger expectancies throughout treatment may assist the clinician in providing optimal treatment strategies that are tailored to phobics' idiosyncratic appraisals. Phobics who display unrealistic expectations about the consequences of anxiety might benefit from treatment strategies directly targeting anxiety sensitivity, such as interoceptive exposure techniques. On the other hand, patients who display unrealistic beliefs concerning threatening aspects of the stimulus, might profit more from corrective information, and behavioral experiments designed to provide disconfirmations of faulty appraisals of danger (e.g. suffocation, entrapment, etc.). Future research might explore the relative contributions of different expectancies among different types of phobics.

Reiss (1991) has recently elaborated on the fear expectancy model of Reiss and McNally (1985). In addition to anxiety sensitivity, he introduces the constructs of injury sensitivity and fear of negative evaluation. These are presented as personality variables representing the salience of danger expectancies and social disaster expectancies, respectively. The utility of this elaborated expectancy model awaits future study.

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*A multiple regression analyses, substituting Subjective Fear in the place of Expected Anxiety, produced nearly identical results to those reported above: Expected Danger, Subjective Fear and the interaction between Subjective Fear and ASI accounted for unique portions of Behavioral Approach, while ASI did not. Including both Expected Anxiety and its corresponding interaction term, and Subjective Fear and its corresponding interaction term, in a single multiple regression analysis did not provide a definitive clarification: while the Expected Anxiety variables showed slightly stronger relationships to Behavioral Approach, none of the partial correlations were significant.

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