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Elevated anxiety sensitivity and the tendency to catastrophically misinterpret ambiguous bodily sensations has been demonstrated in people who experience nonclinical levels of panic (Richards, Austin, & Alvarenga, 2001), and anxiety sensitivity has been shown to be associated with insecure attachment in adolescents and young adults (Weems, Berman, Silverman, & Saavedra, 2001). This study investigated the relationship between attachment style, anxiety sensitivity and catastrophic misinterpretation among 11 nonclinical panickers and 58 nonanxious controls aged 18 to 19 years. Participants completed the Brief Bodily Sensations Interpretation Questionnaire (BBSIQ), Anxiety Sensitivity Index (ASI) and an attachment questionnaire. The hypothesis that insecurely attached individuals would demonstrate greater catastrophic misinterpretation and higher anxiety sensitivity than securely attached individuals was not supported; however, nonclinical panickers gave more anxiety-related interpretations of ambiguous internal stimuli than nonanxious controls. Results do not support the notion that attachment style is related to anxiety sensitivity or catastrophic misinterpretation (regardless of panic experience). Results do, however, support the notion that anxiety-related misinterpretation of ambiguous somatic sensations precedes the onset of panic disorder.

Anxiety sensitivity refers to a fear of anxiety symptoms based on an individual’s belief that these symptoms have harmful physical or social consequences (Reiss, Peterson, Gursky, & McNally, 1986) and has been identified as a risk factor for the development of spontaneous panic attacks (Donnell & McNally, 1990; Maller & Reiss, 1992). Furthermore, research has shown that anxiety sensitivity is factorially distinct from trait anxiety (Taylor, Koch, & Crockett, 1991), and that
anxiety sensitivity may play an important role in the development and maintenance of anxiety disorders in adolescents (Lau, Calamari, & Waraczynski, 1996).

Clark's (1986) cognitive model of panic provides a foundation for predicting the relationship between anxiety sensitivity and panic (Maller & Reiss, 1992). Clark's catastrophic misinterpretation model proposes that panic arises from the misinterpretation of ambiguous bodily sensations as precursors to an impending medical or psychological emergency. For example, tachycardia may be misinterpreted as an impending heart attack, and dissociation may be interpreted as impending insanity. Empirical investigations of panickers' cognitive biases in interpreting ambiguous stimuli have provided some supportive evidence for Clark's (1986) theory (but not always — for a review of the literature see Austin & Richards, 2001). For example, McNally and Foa (1987) investigated the extent to which agoraphobics with panic interpret ambiguous stimuli in a threatening way and found that agoraphobics were more likely to interpret internal (somatic) and external ambiguous stimuli as threatening than normal controls.

To measure catastrophic misinterpretation, Clark et al. (1997) developed the Body Sensations Interpretation Questionnaire (BSIQ) and its brief form (BBSIQ), both of which consist of a number of ambiguous scenarios pertaining to internal stimuli (e.g., “You feel short of breath. Why?”) or external events (e.g., “You smell smoke. Why?”) that respondents are asked to interpret. Clark et al. employed the BBSIQ in a combination of three studies, in order to extend and clarify the findings of previous research. They found that people with panic disorder (PD) were more likely than a combined general anxiety disorder (GAD)/social phobia group and nonanxious controls to misinterpret bodily sensations in a catastrophic way, suggesting interpretive bias is a feature specific to PD. Clark et al. suggested that this interpretive bias should also be evident in nonclinical panickers (i.e., people who have experienced spontaneous panic but do not meet criteria for PD), as the catastrophic misinterpretation model of panic was developed to explain spontaneous panic attacks, not PD specifically.

Richards et al. (2001) aimed to investigate whether the cognitive biases demonstrated by people with PD are demonstrated similarly by people who experience nonclinical panic (NCP), and how anxiety sensitivity is related to this bias. Participants consisted of 20 people with PD, 25 NCPs and 69 nonanxious controls. Results suggested an interpretive bias towards catastrophising ambiguous interoceptive stimuli among both the NCP and PD groups, and high anxiety sensitivity predicted threat interpretations towards both internal and external ambiguous stimuli for both groups. Given that NCPs are at heightened risk of developing PD, the results suggested that misinterpretation bias and anxiety sensitivity are potential risk factors for the development of PD.

In an investigation of the relationship between cognitive bias and anxiety in childhood and adolescence, Weems et al. (2001) found that anxiety sensitivity was predicted by catastrophising. Such a finding is not surprising on the basis of previous research with adults; however, the authors went on to suggest the need for a cognitive model to address this relationship. Despite anxiety sensitivity and interpretive bias having both been proposed as risk factors for the development of panic and PD in adults, little consideration has been given as to how these characteristics may develop from an individual's experiences in childhood and adolescence.

Insecure attachment has been implicated in the development of anxiety and anxiety disorders (Bowlby, 1973; Priel & Shamai, 1995; Muris, Meesters, Van
Attachment theory was first described by Bowlby (1969, 1977) to conceptualise the proclivity of humans to seek strong and enduring affectional bonds with specific others. Bowlby (1969) described attachment behaviour in adulthood as being ‘… a straightforward continuation of attachment behaviour in childhood …’, which despite having weakened with age, will continue to play a vital role ‘from the cradle to the grave’ (pp. 255, 256).

In a landmark study, Ainsworth, Blehar, Waters, and Wall (1978) coded infant attachment behaviours into three categories. Securely attached infants were compliant, cooperative and harmonious in interactions with their mothers. These infants displayed less anxiety in comparison to those in other groups and appeared confident that their mothers would be responsive to their needs, suggesting a distinct advantage in aspects of social and cognitive development. Two patterns characterised by insecure attachment were identified. Children demonstrating anxious/ambivalent attachment presented with chronic levels of anxiety interspersed with angry resistance. Mothers of these children failed to respond contingently, which was reflected in infants’ lack of confidence in their mother’s accessibility and responsiveness, and intense distress upon her departure. The final category, avoidant attachment, described those children who were rejecting, detached and defensive in their attachment behaviour. Mothers of these children tended to be rejecting and find physical contact with their child aversive, making for chronically frustrated and angry infants.

Despite indications of a relationship between early attachment and anxiety as well as evidence for the role of cognitive biases in the development of panic, there is a dearth of research considering the relationship between these findings. In the only study to date, Weems, Berman, Silverman, and Rodriguez (2002) investigated the relationship between anxiety sensitivity and attachment style in a sample of 203 adolescents (mean age 15.7 years) and 324 young adults (mean age 21.7 years). They found that for both adolescents and young adults, insecurely attached individuals had significantly higher levels of anxiety sensitivity than did the securely attached individuals. Weems et al. suggested that the cognitive response styles of insecurely attached individuals may give rise to distorted and selective encoding of anxiety-related sensations. This in turn may influence the development of high anxiety sensitivity.

Chorpita and Barlow (1998) have suggested that greater attention be paid to the developmental aspects of adult disorders, and that research should be conducted into how those factors influencing adult anxiety manifest themselves in childhood. Although early attachment experiences have been implicated in the development of anxiety and anxiety sensitivity, to our knowledge no attempts have been made to determine the relationship, if any, between attachment style and interpretive bias. Additionally, no research has examined the influences of early attachment on panic or PD specifically, but rather anxiety disorders in aggregate has been the focus.

In order to investigate how interpretive bias might develop in a subclinical panic population whose age group has been implicated in marking the initial onset of PD (American Psychiatric Association, 1994), the present study examined the relationship between attachment style and interpretive bias in older adolescents who experienced NCP compared to nonanxious controls. Specifically it was hypothesised that (a) insecurely attached individuals would be more likely to catastrophically misinterpret ambiguous stimuli than securely attached individuals, (b) insecurely attached

individuals would demonstrate significantly higher levels of anxiety sensitivity than securely attached individuals, and (c) NCPs would be more likely to catastrophically misinterpret ambiguous stimuli than nonanxious controls (NACs).

Method

Participants

Sixty-nine participants (4 males and 65 females) aged 18 or 19 years were recruited from the student population of the University of Ballarat, Australia. Participants were students taking a first-year psychology elective who gained credit towards their course requirements for participating.

Two natural groups were identified. The nonanxious control group (NAC) consisted of people with no diagnosable psychological disorder and no experience of spontaneous panic ($n = 58$), and the second consisted of nonclinical panickers (NCP; $n = 11$). To meet the criteria for NCP participants must have reported experiencing at least one spontaneous panic attack in the past 2 years, have indicated mild or no worry about future attacks on the Panic Disorder Severity Scale (Shear et al., 1997), have no other identifiable mental health problem (including PD), and have not sought professional psychological help for panic attacks. Those participants meeting the criteria for any diagnosable psychiatric condition were excluded from the study.

Participants were grouped according to their panic status (NAC, NCP) and attachment style (secure, insecure). Sixteen per cent of participants met the criteria for NCP ($n = 11$), while the remaining 84% were NACs ($n = 58$). Eighty per cent of participants were classified as securely attached ($n = 55$), 16% as avoidantly attached ($n = 11$) and a further 4% as anxious/ambivalently attached ($n = 3$). Participants in the avoidant and anxious/ambivalent categories were grouped into one insecurely attached group ($n = 14$).

Measures

Primary Care Evaluation of Mental Disorders Clinician Evaluation Guide. The Primary Care Evaluation of Mental Disorders Clinician Evaluation Guide (Prime-MD; Spitzer, Williams, Kroenke, & Linzer, 1994) is a brief structured clinical interview that was used to screen participants for psychiatric disorders and to make an initial determination of their panic status. It consists of five modules for the diagnosis of anxiety disorders, mood disorders, somatoform disorders, eating disorders and alcohol abuse/dependence, as defined in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994). In addition to the existing items, the Anxiety Module was modified by asking the question, “have you experienced a panic attack in the previous 2 years?”. The Prime-MD has been demonstrated to possess good validity when matched against more extensive clinical interviews conducted by mental health practitioners (Sears, Danda, & Evans, 1999; Spitzer et al., 1994). The interview was administered by the second author who is a graduate psychology student at the University of Ballarat and was supervised and trained by the senior author (a psychologist) to use the instrument to commonly accepted standards.

Panic Disorder Severity Scale. The PDSS is a 7-item interview scale that was completed by participants identified as NCPs, in order to clarify and confirm the nonclinical Prime-MD assessment. It provides information about the frequency and
severity of panic attacks, the severity of anticipatory anxiety regarding future attacks, phobic avoidance related to panic, and impairment to work and social functioning as a consequence of panic symptoms. Excellent interrater reliability (.87), moderate internal consistency (Cronbach’s $\alpha = .65$) and favourable convergent and discriminant validity have been demonstrated for the PDSS (Shear et al., 1997).

**Attachment Questionnaire — Modified Version.** A modified version of Hazan and Shaver’s (1987) Attachment Questionnaire (AQ-M) was used to assess participants’ attachment styles. The original questionnaire consists of three descriptions, each of which corresponds to a specific attachment typology identified in infants (Ainsworth et al., 1978), but translated into terms appropriately reflecting adult romantic love. Despite the discrete, categorical nature of this instrument, previous research has reported its adequate reliability and validity (Hazan & Shaver, 1987; Lydon, Bradford, & Nelson, 1993; Muris et al., 2001). Two of the three items underwent minor modification in order to improve the face validity of the measure for the Australian adolescent sample, many of whom were assumed to not be in a committed romantic relationship. In item 2 the term ‘love partners’ was changed to ‘significant others’. In item 3 the use of ‘my partner’ was substituted with ‘people I am closest to’, and the phrase ‘I want to merge completely with another person’ was replaced by ‘I want to be very close to another person’. Participants were asked to indicate the description that best described their own feelings in close relationships in order to identify their attachment style.

**Anxiety Sensitivity Index.** The Anxiety Sensitivity Index (ASI; Reiss et al., 1986) is a 16-item self-report measure of anxiety sensitivity. Each item pertains to beliefs about possible negative consequences of anxiety symptoms. For example, ‘it scares me when my heart beats rapidly’ and ‘unusual body sensations scare me’. Participants are asked to respond on a 5-point Likert scale ranging from very little to very much. Evidence for the psychometric soundness of the ASI exists, based on its single factor structure (Reiss et al., 1986), and test–retest reliability of .71 over 3 years (Maller & Reiss, 1992). Additionally, there is strong evidence for the construct validity of the ASI as a distinct measure of fear of anxiety, separate from the experience of general and trait anxiety (e.g., Reiss et al., 1986; Taylor et al., 1991).

**Brief Bodily Sensations Interpretation Questionnaire.** Adapted from McNally and Foa’s (1987) Interpretation Questionnaire, the BBSIQ is a 14-item instrument consisting of a number of potentially threatening ambiguous scenarios that participants were asked to interpret. Two classes of ambiguous events are included: internal stimuli ($n = 7$), which describe internal (somatic) sensations (e.g., ‘You feel short of breath. Why?’), and external events ($n = 7$), which describe general and social scenarios (e.g., ‘You smell smoke. Why?’). When presented with these scenarios participants were instructed to write the first explanation that came to them (open-ended response). For internal items, responses were scored as either anxiety-related (e.g., ‘I’m having a panic attack’, score = 1), harm-related (e.g., ‘I’m having a heart attack’, score = 1) or benign (e.g., ‘I have indigestion’, score = 0). For external items, responses were scored as either threat (e.g., ‘The house is on fire’, score = 1) or nontreat (e.g., ‘It’s just the sound of the wind’, score = 0). Responses were scored independently by the two authors who were blind to the participants’ panic status and attachment type. An interrater reliability of .98 was established, and discrepan-
cies were resolved via discussion between the two scorers. On the page following
the open-ended responses, participants were presented with three experimenter-pro-
vided options which they were asked to rank according to the order in which they
would be most likely to come to their mind. One alternative was always negative,
with the remaining options being either both benign, or one benign and one posi-
tive. None of the alternatives specifically mentioned anxiety or panic. Scoring was
based according to the ranking given to the negative explanation: ranked first
(score = 2), ranked second (score = 1), ranked third (score = 0). In total, five scores
were obtained from the BBSIQ:
1. The number of internal scenarios interpreted as threatening on the open-ended
questions (possible range: 0–7). Consistent with Harvey, Richards, Dziadosz, and
Swindell (1993) and Clark et al. (1997), two threat scores were derived from the
open-ended internal scenarios:
   (a) Narrow criterion of threat; the number of responses rated as harm-related
   only (0–7)
   (b) Broad criterion of threat; the number of responses rated as either harm- or
   anxiety-related (0–7).
2. The number of external scenarios interpreted as threatening on the open-ended
questions (possible range: 0–7).
3. The sum of the internal threat rankings from the internal rank-ordered ques-
tions (possible range: 0–14).
4. The sum of external threat rankings from the external rank-ordered questions
(possible range: 0–14).

Procedure

Testing sessions were conducted on an individual basis. A clinical interview (Prime-
MD) was administered to ascertain the participant’s clinical status. Participants
identified in the interview as NCPs were asked to complete the PDSS in order to
clarify and confirm the Prime-MD assessment. Participants were then asked to com-
plete the AQ-M, the ASI and the BBSIQ in a counterbalanced fashion.

Results

Significance testing of differences on all measures across panic status (NAC/NCP)
and attachment type (secure/insecure) was done separately using one-way
MANOVAs. Ideally, two-way analyses investigating the interaction between the
two independent variables (panic status and attachment style) would be conducted;
however, the use of two-way analyses on the sample would have resulted in too few
cases per cell to ensure statistical validity and adequate power.

To indicate significant main effects, Pillai’s criterion was employed due to its
robustness against small sample size, unequal n values and violation of assump-
tions (Tabachnick & Fidell, 1996). Eta squared served as effect size where according to
Clark-Carter (1997) $\eta^2 = 0.01$ is small; $\eta^2 = 0.059$ is moderate and $\eta^2 > 0.138$ is
considered to be a large effect. In screening for normality, three BBSIQ variables
were found to be positively skewed (internal open-ended — narrow criterion;
internal — ranked response; external — open-ended). Correction was made via
square root transformation.
A one-way MANOVA was conducted to examine differences in anxiety sensitivity and catastrophic misinterpretation across attachment style. Participants’ total score on the ASI and scores on the BBSIQ subscales served as the dependent variables. The means and standard deviations of securely and insecurely attached participants on the ASI and all five BBSIQ interpretation measures are presented in Table 1. No significant multivariate effect was found for attachment style, $F(6, 62) = 1.59$, $p > .05$, with power of .57.

Interpretation of Ambiguous Stimuli and Anxiety Sensitivity by Panic Status

A one-way MANOVA was conducted to examine differences in anxiety sensitivity and catastrophic misinterpretation between NCPs and NACs. The means and standard deviations of NACs and NCPs on the ASI and all five BBSIQ interpretation measures are presented in Table 2. A significant multivariate effect was found for panic status, $F(6, 62) = 4.05$, $p < .01$, with a large effect size ($\eta^2 = 0.28$) and high power of .96. Subsequent univariate analyses of variance (ANOVAs) revealed a significant difference across panic status on the broad criterion of threat, $F(1, 67) = 9.52$, $p < .01$, with a moderate effect size ($\eta^2 = 0.12$) and adequate power (.86). NCPs made significantly more harm- and anxiety-related interpretations (broad criterion of threat) than did NACs. No significant differences were found for the narrow criterion of threat (harm-related interpretations only), $F(1, 67) = 0.77$, $p > .05$; the external open-ended, $F(1, 67) = 2.53$, $p > .05$; internal threat rankings, $F(1, 67) = 3.08$, $p > .05$; or external threat rankings, $F(1, 67) = 0.07$, $p > .05$. Additionally, no significant differences were found for ASI scores, $F(1, 67) = 0.49$, $p > .05$.

Discussion

The results failed to support the first hypothesis that insecurely attached individuals would make more harm-related interpretations of ambiguous stimuli than securely

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### Table 1

<table>
<thead>
<tr>
<th>Attachment Style</th>
<th>Anxiety Sensitivity</th>
<th>BBSIQ Internal Stimuli</th>
<th>BBSIQ External Stimuli</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
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<tr>
<td>Secure attachment</td>
<td>19.07</td>
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<td>Secure attachment</td>
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<tr>
<td>Insecure attachment</td>
<td>22.64</td>
<td>7.81</td>
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<td>Insecure attachment</td>
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<td>0.91</td>
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<td>Insecure attachment</td>
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<td>3.29</td>
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<td>Insecure attachment</td>
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</table>

**Interpretation of Ambiguous Stimuli and Anxiety Sensitivity by Secure and Insecure Attachment Styles**

A one-way MANOVA was conducted to examine differences in anxiety sensitivity and catastrophic misinterpretation across attachment style. Participants’ total score on the ASI and scores on the BBSIQ subscales served as the dependent variables. The means and standard deviations of securely and insecurely attached participants on the ASI and all five BBSIQ interpretation measures are presented in Table 1. No significant multivariate effect was found for attachment style, $F(6, 62) = 1.59$, $p > .05$, with power of .57.

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**Discussion**

The results failed to support the first hypothesis that insecurely attached individuals would make more harm-related interpretations of ambiguous stimuli than securely
attached individuals. No significant difference was found between securely and insecurely attached individuals on any of the five BBSIQ subscales measuring catastrophic misinterpretation. Given that one's attachment style in adolescence is widely considered to be a straightforward continuation of one's attachment behaviour in childhood (Bowlby, 1969, 1973), there is no evidence from this study therefore of a link between early attachment experiences and the development of interpretive bias.

Whereas previous research has only considered attachment theory in relation to anxiety and anxiety disorders in aggregate, the present study was the first to investigate the relationship of attachment style to panic-related cognitive variables specifically. However, it is possible that the relationship may not exist in the specific case of spontaneous panic or PD. Therefore, the failure to find a significant difference between attachment styles on catastrophic misinterpretation may be because insecure attachment experiences are related to anxiety generally, rather than to the specific cognitive correlates of panic.

The second hypothesis predicted that NCPs would be more likely to catastrophically misinterpret ambiguous stimuli than NACs. This hypothesis was partially supported, with NCPs making significantly more harm-related interpretations of interoceptive stimuli (based on the broad criterion of threat only) than did NACs. However, no differences were found between NCPs and NACs for any of the other BBSIQ subscales. This suggests that NCPs tended to make more anxiety-related interpretations (e.g., ‘I am going to panic’) of ambiguous internal stimuli. Therefore, the experience of NCP may serve as an antecedent to anxiety-related interpretation, but not harm-related interpretations.

There appears to be consistency between the findings from this study and several others (e.g., Harvey et al., 1993; Richards et al., 2001) in that panickers’ (both NCP and PD) tend to make more anxiety-related interpretations of ambiguous internal stimuli (i.e., the broad criterion of threat measure) than nonanxious controls. However, whether these anxiety-related responses qualify as true catastrophic misinterpretations depends upon what the individual believes will occur as a result

### TABLE 2
Means and Standard Deviations on the Anxiety Sensitivity Index and Brief Bodily Sensations Interpretation Questionnaire Subscales for Nonclinical Panickers and Nonanxious Controls

<table>
<thead>
<tr>
<th></th>
<th>Nonanxious control (n = 58)</th>
<th>Nonclinical panic (n = 11)</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Anxiety Sensitivity</td>
<td>19.53</td>
<td>6.71</td>
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<tr>
<td>BBSIQ Internal Stimuli</td>
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<td></td>
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<tr>
<td>Narrow criterion</td>
<td>0.27</td>
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<tr>
<td>Broad criterion</td>
<td>1.12*</td>
<td>1.03</td>
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<tr>
<td>Internal rankings</td>
<td>0.76</td>
<td>0.85</td>
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<tr>
<td>BBSIQ External Stimuli</td>
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</tr>
<tr>
<td>External open-ended</td>
<td>0.75</td>
<td>0.70</td>
</tr>
<tr>
<td>External rankings</td>
<td>2.14</td>
<td>2.56</td>
</tr>
</tbody>
</table>

Note: * denotes significant difference at p < .01.
of the anxiety/panic, which may or may not be catastrophic (see Austin & Richards, 2001). As such, unequivocal support for Clark’s (1986) catastrophic misinterpretation model cannot be established from the results of these studies.

The third hypothesis predicted that insecurely attached individuals would demonstrate higher levels of anxiety sensitivity than securely attached individuals. This hypothesis was not supported, with no significant difference being found between securely and insecurely attached participants’ levels of anxiety sensitivity. This finding is contrary to that of Weems et al. (2002), who found that insecurely attached individuals demonstrated significantly higher levels of anxiety sensitivity than did securely attached individuals. However, a dearth of literature exists in this area, with Weems et al. apparently the only researchers to consider it previously. Although the results of this study failed to support the hypothesis that anxiety sensitivity is related to attachment security, it is clearly an area in need of further research before any definitive conclusions can be drawn.

It is important to acknowledge the small sample size obtained for this study and the subsequent low power of some of the statistical tests. In particular, the low number of participants in both the NCP group and the insecurely attached group made it impossible to investigate any possible interaction between attachment style and panic status. Although the NCP group was relatively small (n = 11), the 16% prevalence of NCP obtained in this sample is consistent with rates reported in past research. In a sample aged between 12 and 17 years, King, Ollendick, Mattis, Yang, and Tonge (1996) found that 16% had experienced a panic attack in the past, and Mattis and Ollendick (2002) reported a 16.5% prevalence of panic experience in a sample of Australian university students aged between 18 and 19 years.

Conversely, the prevalence of the three attachment styles in this study was not consistent with previous research. In the present study, 80% of participants were securely attached, 16% were avoidantly attached and 4% were anxiously/ambivalently attached. In comparison, Hazan and Shaver (1987) found in a combined community and student sample that 56% of participants were securely attached, 24% were avoidantly attached and 20% were anxiously/ambivalently attached. These prevalence rates correspond closely with Ainsworth et al.’s (1978) original findings in infancy. Therefore, the present sample was quite atypical in their attachment typologies, with a much larger percentage being securely attached and far less insecurely attached than in previous research.

An alternative explanation for this unexpected finding was the use of the AQ-M as a measure of attachment style. The original Attachment Questionnaire (AQ) developed by Hazan and Shaver (1987) has been reported to demonstrate adequate reliability and validity in past studies; however, some researchers have criticised its use (e.g., Bradford & Lyddon, 1994; Collins & Read, 1990). Three major limitations of the AQ have been identified. First, each description contains statements pertaining to distinct aspects of relationships (e.g., the secure description includes two facets: being comfortable with closeness and being able to depend on others). Thus, respondents must endorse one entire description that may not be truly representative of their feelings on both dimensions. Second, it is impossible to evaluate the degree to which a chosen attachment style characterises a person. And finally, the discrete nature of the AQ assumes each attachment style to be mutually exclusive, thereby forcing participants to choose one style over another. Having mutually exclusive categories rules out the possibility of overlap between attachment styles and assumes a valid description of all adult attachment styles has been
provided. Therefore, although some support for the use of the AQ exists it has also been the subject of considerable criticism, and as such, whether it truly represents a valid and reliable measure of attachment remains contentious. A further limitation of the AQ-M was the possibility that participants may have been influenced by a social desirability bias. That is, participants may not have wanted to select descriptions that appeared unfavourable or maladjusted (i.e., the insecure styles), and instead chose the most socially acceptable response (i.e., the secure style).

Research into the developmental antecedents of panic remains in its infancy. To our knowledge, the present study was the first to consider the relationship between attachment style and interpretive bias in a nonclinical population of panickers. Although the findings were not generally supportive of the hypotheses, future research in this area is warranted. In particular, investing effort in longitudinal research should provide invaluable insight into the role, if any, of early childhood attachment experiences in the development of panic, while also enabling researchers to identify possible causative mechanisms underlying the development of cognitive correlates of panic and indeed panic itself.

This study provided some useful replication of previous research investigating Clark’s (1986) catastrophic misinterpretation model of panic. The finding that NCPs made significantly more threat-related interpretations of interoceptive stimuli only when using the broad criterion of threat is, at best, only partially supportive of the model. In order to clarify the nature of anxiety-related threat interpretation, in terms of whether or not it constitutes true catastrophe, the development of an additional measure of participants’ beliefs regarding the outcome of anxiety/panic interpretations may prove useful.

References


