

The Cognitive and Emotional Phenomenology of Depression and Anxiety: Are Worry and Hopelessness the Cognitive Correlates of NA and PA?

Richard Beck,^{1,2} T. Scott Perkins,¹ Robyn Holder,¹ Marla Robbins,¹ Melissa Gray,¹ and Stephen H. Allison¹

The study attempted to integrate the cognitive content-specificity and tripartite literatures to create a more holistic model of the emotional, physiological, and cognitive phenomenology of depression and anxiety. In addition, the constructs of hopelessness and worry were used to clarify ambiguous findings in the cognitive content-specificity research and to identify possible cognitive correlates of high NA and low PA. The results from 124 clients at a university counseling center supported this attempt at integrating these literatures. Overall, there was good evidence that worry is a cognitive correlate of high NA. Consequently, we view worry and high NA as features of a constellation of correlated indices that are shared with both depressed and anxious mood states. Alternatively, the results also support the position that hopelessness is a cognitive correlate of low PA. These features—low PA and hopelessness—define correlated indices that help discriminate depressed from anxious states. We view this integration of the cognitive and emotional literatures as providing evidence for a comprehensive map of the emotional and cognitive phenomenology in depression and anxiety.

KEY WORDS: depression; anxiety; cognitive specificity; negative and positive affectivity; hopelessness; worry.

INTRODUCTION

Ever since the mid-80s when researchers began to notice the increased inter-correlations between self-reported depression and anxiety instruments (Dobson, 1985; Tanaka-Matsumi & Kameoka, 1986), there has been consistent effort in the literature to explain the shared versus unique emotional and cognitive features of depression and anxiety (Kendall & Ingram, 1989). The tripartite model of depression and anxiety (Clark & Watson, 1991; Clark, Watson, & Mineka, 1994; Watson,

¹Abilene Christian University, Abilene, Texas.

²Correspondence should be directed to Richard Beck, Abilene Christian University, ACU Box 28011, Abilene, Texas 79699; e-mail: beckr@acu.edu.

Clark, & Carey, 1988; Watson & Tellegen, 1985) suggests that depression and anxiety share increased levels of negative affect—nonspecific distress and unpleasant mood—that can confound self-report symptomatology measures. Depression, however, can be distinguished from anxiety by the presence of low positive affect (PA) that is manifested in decreased arousal, energy, and activity. Alternatively, anxiety can be distinguished from depression by the presence of physiological hyperarousal. Overall, the tripartite model has received consistent support in the empirical literature as a method for delineating the shared versus unique affective and physiological features of depression and anxiety (see Clark, Watson, & Mineka, 1994, for review).

In contrast to the tripartite model, the cognitive content-specificity hypothesis suggests that depression and anxiety can be distinguished on the basis of unique cognitive content (Clark & Beck, 1989). Overall, the cognitive content-specificity hypothesis has been relatively well-supported (for a representative sample of this literature see Beck, Brown, Eidelson, Steer, & Riskind, 1987; Clark, Beck, & Brown, 1989; Clark, Beck, & Stewart, 1990; Clark, Steer, Beck, & Snow, 1996; Jolly, 1993; Jolly, Dyck, Kramer, & Wherry, 1994). Overall, this research suggests that anxiety is uniquely characterized by future-oriented thoughts associated with potential harm or danger. By contrast, depression is characterized by generally pessimistic and self-critical cognitions. However, a recent meta-analytic review of the cognitive content-specificity research (Beck & Perkins, in press) has indicated that anxious cognitive content has generally performed poorly in discriminating depression and anxiety. As it stands, although the cognitive content-specificity model has some support, the poor discriminative ability of anxious cognition suggests that we accept the cognitive specificity model as only a tentative map of the cognitive terrain for depression and anxiety.

Can the Tripartite and Cognitive Content-Specificity Models Be Synthesized?

There has been some attention devoted towards integrating the cognitive content and tripartite models of depression and anxiety (Clark, Cook, & Snow, 1998; Jolly, Dyck, Kramer, & Wherry, 1994; Shapiro, Roberts, & Beck, 1999). Overall, this work has suggested that links can be made between these two models. In particular, anxious cognitive content has consistently correlated with high NA, with depressive cognitive content as a cognitive correlate of low PA. However, this pattern of correlations is problematic. Specifically, according to the cognitive content-specificity hypothesis anxious and depressed cognitive content should be unique to their respective syndromes. By contrast, the tripartite model delineates both shared and unique features of anxiety and depression. The fact that anxious cognitive content (proposed to be a unique feature of anxiety) is correlated with NA (proposed to be a shared feature of both depression and anxiety) suggests that some lingering issues need to be resolved concerning the integration of these two models. Specifically, should anxious cognition be conceptualized as a cognitive correlate of NA? Should depressive cognition be conceptualized as a cognitive correlate of PA? Some have suggested that a three-factor model, similar to the tripartite model, might also be employed to describe the cognitive content in anxiety and depression (Jolly & Dykman, 1994). However, this factor solution has not been replicated in other populations. In

addition, Jolly and Dykman (1994) did not assess NA and PA. Consequently, Jolly and Dykman (1994) could not determine if the three cognitive factors displayed good convergent correlations with the tripartite model measures.

Worry and Hopelessness: The Cognitive Correlates of High NA and Low PA?

The fact that anxious cognitive content has been correlated with NA in the literature suggests that anxious automatic thoughts may be a shared cognitive feature of depression and anxiety. As noted above, this result seems inconsistent with the general theme of the cognitive content-specificity hypothesis. However, the literature suggests that there is a cognitive index that, although traditionally thought to be a unique feature of certain anxiety disorders, is shared with depression: cognitive rumination or worry (for review see Borkovec, Ray, & Stober, 1998). We can expect anxious cognitive content to share significant variance with worry. If this is the case, then worry, rather than anxious cognitive content, could be considered a cognitive correlate of NA due to the fact that both worry and NA appear to be shared features of anxiety and depression.

Unlike anxious cognitive content, depressive cognition does appear to be a unique cognitive feature of depression (Beck & Perkins, in press), which suggests that depressive cognition might be a cognitive correlate of low PA. However, in the meta-analysis of the cognitive content-specificity literature it was observed that depressive cognitive content did share a significant proportion of its variance with anxious symptomatology (Beck & Perkins, in press). Depressive cognitive content, as assessed in cognitive specificity literature, is operationalized as a heterogeneous set of depressogenic automatic thoughts. Perhaps if a more homogeneous set of depressogenic cognitions were assessed, the patterns of specificity could be improved for depressive cognitive content. Following this line of thinking, in the current study depressive cognitive content was compared with the more homogeneous set of hopeless cognitions to determine that would better discriminate depressed and anxious states.

Overview and Predictions

This study was an empirical examination of the emotional, physiological, and cognitive features associated with depressed and anxious symptomatology. More specifically, we wanted to identify the cognitive correlates of NA and PA in an attempt to link the cognitive content and tripartite model literatures. Although there has been previous work in this area, the present study makes a contribution by comparing the discriminative ability of four cognitive variables: depressed and anxious cognitive content (as typically assessed in the cognitive content literature), worry, and hopelessness. Consequently, the hypotheses unique to this study were that worry would be the single best cognitive indicator of high NA and that hopelessness would be the single best cognitive indicator of low PA. Similarly, regarding the structure of the cognitive and affective measures, we predicted that worry and high NA would be marker variables of a generalized distress factor and that hopelessness and low PA would be marker variables of a depression factor.

METHOD

Participants and Procedure

Participants were 124 clients at Abilene Christian University's Counseling Center. Seventy percent of the sample was female. The mean age of the participants was 19.93 ($SD = 3.98$). Sixty-three percent of the sample were new clients to the Center who were asked to complete an assessment battery as a part of their intake evaluation and assessment. The remaining thirty-seven percent were already involved in individual psychotherapy at the Center and were asked to complete the assessment battery upon resuming therapy at the start of the spring semester. *DSM-IV* diagnoses were unavailable for new clients. For clients currently involved in therapy (as diagnosed by the individual therapists) 56% carried Axis I affective disorders (37% mood disorder, 7.4% anxiety disorder, 11.6% mixed depression-anxiety disorder). All participants were asked to complete a battery that assessed cognitive content (depressive and anxious), anxious and depressed symptomatology, NA and PA, worry, and hopelessness.

Assessment Instruments

Beck Depression Inventory

The Beck Depression Inventory (BDI; Beck & Steer, 1993) is a 21-item self-report inventory assessing depressive symptomatology. The BDI has demonstrated robust reliability and validity coefficients across a variety of populations. In this sample the BDI yielded an alpha coefficient of .90.

Beck Anxiety Inventory

The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988) is a 21-item self-report inventory assessing somatic symptoms related to anxiety as well as anxious affect. The BAI has demonstrated robust reliability and validity coefficients (Beck et al., 1988). In this sample the BAI yielded an alpha of .91.

Cognitions Checklist

The Cognitions Checklist (CCL; Beck, Brown, Steer, Eidelson, & Riskind, 1987) is a 26-item self-report inventory that assesses the frequency of automatic thoughts across various commonly occurring scenarios. The CCL has two subscales. Anxious cognitive content (CCL-A) is assessed by 12-items tapping danger-related cognition. Depressive cognitive content (CCL-D) is assessed by 14-items that tap depressive automatic thoughts. The CCL has been the most frequently used assessment instrument in the cognitive content-specificity research (Beck & Perkins, in press). In this sample the CCL-A and CCL-D yielded alpha coefficients of .88 and .93 respectively.

Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Telegen, 1988) comprises of 10 items assessing NA and 10 assessing PA. The PA and NA subscales have displayed robust reliability estimates across populations and have been found to be relatively uncorrelated with each other (Clark & Watson, 1991). In this sample the NA and PA items yielded alpha coefficients of .86 and .89 respectively.

Hopelessness Scale

The Hopelessness Scale (HS; Beck, Weissman, Lester, & Trexler, 1974) is a 20-item true/false self-report inventory assessing generalized negative expectations about one’s future. The HS has been shown to be specific to depressed mood states (Beck, Riskind, Brown, & Steer, 1988). In this sample the HS yielded an alpha coefficient of .89.

Penn State Worry Questionnaire

The Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990) is a 16-item self-report instrument assessing generalized worry. The PSWQ has demonstrated good internal consistency and test-retest reliability (Meyer et al., 1990). The PSWQ has also displayed good criterion-group validity in distinguishing individuals with Generalized Anxiety Disorder from other clinical populations (Meyer et al., 1990). In this sample the PSWQ yielded an alpha coefficient of .94.

RESULTS

Zero-Order Relationships Between Cognition, Mood, and Symptomatology

The descriptive statistics and zero-order correlations between the variables are presented in Table I. All of the correlations presented in Table I are consistent with

Table I. Descriptive Statistics and Zero-Order Correlations for Emotion, Cognition, and Symptomatology Inventories

	2.	3.	4.	5.	6.	7.	8.	<i>M</i>	<i>SD</i>
1. BDI	.66	.76	.59	.64	-.65	.71	.56	17.71	11.71
2. BAI		.57	.60	.68	-.40	.43	.56	30.80	9.42
3. CCL-D			.65	.47	-.53	.72	.54	27.97	11.03
4. CCL-A				.37	-.37	.50	.41	20.86	7.54
5. NA					-.31	.31	.48	26.97	8.95
6. PA						-.56	-.36	29.28	8.27
7. HS							.33	4.93	4.61
8. PSWQ								52.35	14.73

Note. All correlations significant at $p < .001$; BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; CCL-D: Cognitions Checklist—Depression; CCL-A: Cognitions Checklist—Anxiety; NA: Negative Affect; PA: Positive Affect; HS: Hopelessness Scale; PSWQ: Penn State Worry Questionnaire.

the performance of these variables in the empirical literature. To make some preliminary contrasts between the discriminative ability of the four cognitive measures we conducted statistical comparisons of their zero-order correlations with the BAI and the BDI. Replicating the findings of meta-analysis for the cognitive specificity literature (Beck & Perkins, in press), the correlations of the CCL-A with the BDI and BAI were not significantly different. By contrast, the CCL-D displayed significant trends for specificity ($t_{121} = 3.91, p < .001$), being more strongly correlated with the BDI than the BAI. However, as predicted, the HS was more statistically reliable than the CCL-D in displaying discriminative correlations between the BDI and BAI ($t_{121} = 5.31, p < .001$). The PSWQ was equally related to both the BDI and the BAI. When compared with the measures from the tripartite model, the HS again displayed better discriminative ability ($t_{121} = 2.24, p < .03$) between NA and PA than did the CCL-D ($t_{121} = .73, p > .40$). The CCL-A was equally related to both NA and PA. By contrast, the PSWQ displayed a marginally significant ability to discriminate NA from PA ($t_{121} = 1.31, p = .09$).

The Structure of the Emotional and Cognitive Phenomenology

Because there was a significant degree of shared variance between the variables, we conducted a principal components analysis with varimax rotation for all variables. Based upon an examination of the scree plot a two-factor solution was retained explaining 69.8% of the variance between the variables. Table II presents the percentage of variance explained by each factor and the factor loadings for each of the variables. An examination of Table II might suggest that a one-factor solution could also have been retained. However, we selected the two-factor solution for three reasons: First, wanted to explain the majority of the variance; Second, we wanted theory to drive the solution; Third, we wanted our solution to parallel other published factor solutions using these variables. After examining the factor loadings, Factor 1 was labeled as a Low Positive affect/Depression factor, because each of the depression scales loaded strongly on this factor. Factor 2 was labeled as a

Table II. Principal Components Varimax Rotated Solution and Factor Loadings for Emotion, Cognition, and Symptomatology Inventories

	Low positive affect/ depression (57.6%)	Negative affect/ anxiety (12.2%)
HS	.86	.14
PA	-.77	-.16
CCL-D	.73	.48
BDI	.70	.57
CCL-A	.56	.48
NA	.13	.85
BAI	.32	.82
PSWQ	.24	.72

Note. Factor 1 eigenvalue = 4.6, Factor 2 eigenvalue = 1.0; BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; CCL-D: Cognitions Checklist—Depression; CCL-A: Cognitions Checklist—Anxiety; NA: Negative Affect; PA: Positive Affect; HS: Hopelessness Scale; PSWQ: Penn State Worry Questionnaire.

Negative affect/Anxiety factor because it was primarily comprised NA, the BAI, and PSWQ.

Overall, the factor loadings for the variables were consistent with other factor solutions reported in the literature for these instruments. NA and PA loaded on separate dimensions, which is consistent with the circumplex of mood factor structure. Similarly, the BDI and BAI loaded on separate dimensions. The novelty of Table II is the contrast between the Cognitions Checklist sub-scales, the HS, and the PSWQ. Both the CCL-A and CCL-D displayed strong cross-factor loadings (for the CCL-A this was very much the case: it had a stronger loading with the PA/Depression than the NA/Anxiety factor). Alternatively, the HS was the single best indicator of the PA/Depression factor and shared little of its variance with the NA/Anxiety factor. The PSWQ was the single best cognitive indicator of the NA/Anxiety factor. In contrast with the CCL-A, the PSWQ shared little of its variance with the PA/Depression factor. Overall, these findings support a structural link between the emotional phenomenology of negative and positive affect and the cognitive variables of hopelessness and worry.

Prediction of Negative and Positive Affect

Finally, we conducted two regression analyses to determine which cognitive variables were predictive of high NA and low PA. In each analysis all the cognitive variables were entered simultaneously into the regression equation. This analysis allowed us to determine the uniqueness (controlling for the shared variance with the other cognitive inventories) of a cognitive variable's relationship with NA and PA.

In the first analysis the CCL-A, CCL-D, HS, and PSWQ were used to predict NA scores. The overall prediction of NA was significant, explaining 30% of the variance in NA scores ($R = .55$, $F_{(4, 101)} = 10.75$, $p < .001$). An examination of the individual predictors revealed that only the PSWQ made a unique contribution to the prediction of NA ($\beta = .29$, $p < .004$). In the second analysis, the cognitive variables were entered into an equation predicting PA scores. This prediction was significant, explaining 35% of the variance in PA scores ($R = .59$, $F_{(4, 102)} = 13.63$, $p < .001$). An examination of the individual predictors indicated that only the HS made a unique contribution to the prediction of PA ($\beta = -.36$, $p < .003$). Overall, the results of these regression analyses indicate that, although the cognitive variables share a significant proportion of their variance with each other, the PSWQ and HS did have relatively unique relationships with NA and PA. In sum, these regression analyses add further support for the link between high NA with worry and low PA with hopelessness.

DISCUSSION

The Cognitive and Emotional Phenomenology of Depression and Anxiety

The main objective of this study was to provide a holistic picture of the subjective experiences involved in anxiety and depression. Two rich literatures have emerged

over the last 15 years, each describing one part of the overall phenomenological experience involved in anxiety and depression. To unite these literatures a growing body of work has been devoted to the integration of the tripartite and cognitive content models. This study makes a small contribution to this effort by examining the relative effectiveness of various cognitive assessment instruments in demonstrating links with the affective dimensions of NA and PA. Overall, our results suggest that worry is a cognitive correlate of NA and that hopelessness is a cognitive correlate of PA. In isolation this finding is not novel. However, in the present study worry and hopelessness were directly compared with anxious and depressive cognitive content measures. Based on these comparisons, we conclude that worry and hopelessness provide cleaner links to the NA–PA circumplex than the subscales of the CCL, the most frequently used cognitive content measure in the specificity research.

Future research should continue to direct their attention toward the poor performance of anxious cognitive content in displaying specificity. As in other studies, anxious cognitive content failed to correlate uniquely with anxiety or NA. This may indicate that the psychometric properties of the CCL need to be improved or that the cognitive content-specificity hypothesis needs to be modified to recognize that anxious cognition is not truly unique to anxiety but is shared with depression. The fact that worry is a shared feature of depression and anxiety suggests that this may indeed be the case. Only continued attention to the operationalization and improved assessment of anxious cognitive content can settle this issue.

However, the failure to observe patterns of cognitive specificity may have been due to the sample characteristics. Although the participants were seeking psychological assistance, no standardized diagnostic interviews were conducted. In addition, the descriptive statistics for the BDI in this sample indicated that much of the sample was only mildly depressed. Consequently, we are hesitant to generalize our findings to clinically depressed and anxious populations. Only by replicating this study in pure and mixed depressed and anxious populations will the issues raised in the previous paragraph be resolved.

Finally, we want to express a concern about our conclusion that worry is a cognitive correlate of NA and hopelessness a cognitive correlate of PA. According to this model, low PA and hopeless cognition are unique to depressed states, whereas worry and high NA are shared features of both anxiety and depression. Although the mix of high NA and low PA for depression makes intuitive sense, it is less clear what it means that depressed individuals are both worried and hopeless. The fixed ideational set involved in hopelessness seems to preclude the rumination and wondering about the future involved in worry. The presence of both worry and hopelessness in depressed individuals seems to be an intriguing phenomena worthy of continued empirical attention. It would be interesting to observe how depressed populations alternate between worrying about future events and becoming hopeless about future events. It might be the case that these oscillations between worry and hopelessness may indicate that the person has not quite “thrown in the towel” but is continuing the struggle to make sense of his or her life situation. In these cases it would seem that the individual’s cognitive set is not yet rigid and fixed and may, therefore, be more assessable to cognitive restructuring efforts.

Conclusion

There seem to be clear links between the cognitive content and tripartite models of anxiety and depression. Although questions remain, particularly concerning the performance of anxious cognitive content, the cognitive and emotional phenomenology of depression and anxiety is coming into clearer focus. This continuing integration should provide the clinician involved in differential diagnosis a better understanding of those cognitive, emotional, and physiological symptoms that clearly discriminate one mood disorder from another.

ACKNOWLEDGMENTS

The authors thank Cathy Taylor and Stephen Wilson for their assistance in conducting this research.

REFERENCES

- Beck, A. T., Brown, G., Steer, R. A., Eidelson, J. I., & Riskind, J. H. (1987). Differentiating anxiety and depression: A test of the cognitive content-specificity hypothesis. *Journal of Abnormal Psychology, 96*, 179–183.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology, 56*, 893–897.
- Beck, R., & Perkins, T. S. (in press). Cognitive content-specificity for anxiety and depression: A meta-analysis. *Cognitive Therapy and Research*.
- Beck, A. T., Riskind, J. H., Brown, G., & Steer, R. A. (1988). Levels of hopelessness in DSM-III disorders: A partial test of content specificity in depression. *Cognitive Therapy and Research, 12*, 459–469.
- Beck, A. T., & Steer, R. A. (1993). *Manual for the revised Beck Depression Inventory*. San Antonio, TX: Psychological Corporation.
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology, 42*, 861–865.
- Borkovec, T. D., Ray, W. J., & Stober, J. (1998). Worry: A cognitive phenomena intimately linked to affective, physiological, and interpersonal behavioral processes. *Cognitive Therapy and Research, 22*, 561–576.
- Clark, D. A., & Beck, A. T. (1989). Cognitive theory and therapy of anxiety and depression. In P. C. Kendall & D. Watson (Eds.), *Anxiety and depression: Distinctive and overlapping features* (pp. 379–411). San Diego: Academic Press.
- Clark, D. A., Beck, A. T., & Brown, G. (1989). Cognitive mediation in general psychiatric outpatients: A test of the cognitive content-specificity hypothesis. *Journal of Personality and Social Psychology, 56*, 958–964.
- Clark, D. A., Beck, A. T., & Stewart, B. (1990). Cognitive specificity and positive–negative affectivity: Complementary or contradictory views on anxiety and depression? *Journal of Abnormal Psychology, 99*, 148–155.
- Clark, D. A., Cook, A., & Snow, D. (1998). Depressive symptom differences in hospitalized, medically ill, depressed psychiatric inpatients and nonmedical controls. *Journal of Abnormal Psychology, 107*, 38–48.
- Clark, D. A., Steer, R. A., Beck, A. T., & Snow, D. (1996). Is the relationship between anxious and depressive cognitions and symptoms linear or curvilinear? *Cognitive Therapy and Research, 20*, 135–154.
- Clark, L. A., & Watson, D. (1991). Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology, 100*, 316–336.
- Clark, L. A., Watson, D., & Mineka, S. (1994). Temperament, personality, and the mood and anxiety disorders. *Journal of Abnormal Psychology, 103*, 103–116.
- Dobson, K. S. (1985). The relationship between anxiety and depression. *Clinical Psychology Review, 5*, 307–324.

- Jolly, J. B. (1993). A multi-method test of the cognitive content-specificity hypothesis in young adolescents. *Journal of Anxiety Disorders, 7*, 223–233.
- Jolly, J. B., Dyck, M. J., Kramer, T. A., & Wherry, J. N. (1994). Integration of positive and negative affectivity and cognitive content-specificity: Improved discrimination of anxious and depressed symptoms. *Journal of Abnormal Psychology, 103*, 544–552.
- Jolly, J. B., & Dykman, R. A. (1994). Using self-report data to differentiate anxious and depressive symptoms in adolescents: Cognitive content specificity and global distress? *Cognitive Therapy and Research, 18*, 25–37.
- Kendall, P. C., & Ingram, R. E. (1989). Cognitive-behavioral perspectives: Theory and research on depression and anxiety. In P.C. Kendall & D. Watson (Eds.), *Anxiety and depression: Distinctive and overlapping features* (pp. 27–53). San Diego: Academic Press.
- Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behavior Research and Therapy, 28*, 487–495.
- Shapiro, A. M., Roberts, J. E., & Beck, J. G. (1999). Differentiating symptoms of anxiety and depression in older adults: Distinct cognitive and affective profiles? *Cognitive therapy and research, 23*, 53–74.
- Tanaka-Matsumi, J., & Kameoka, V. A. (1986). Reliabilities and concurrent validities of popular self-report measures of depression, anxiety, and social desirability. *Journal of Consulting and Clinical Psychology, 54*, 328–333.
- Watson, D., Clark, L. A., & Carey, G. (1988). Positive and negative affectivity and their relation to anxiety and depressive disorders. *Journal of Abnormal Psychology, 97*, 346–353.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063–1070.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological Bulletin, 98*, 219–235.

Copyright of Cognitive Therapy & Research is the property of Kluwer Academic Publishing and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.