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COGNITIVE AND ATTRIBUTIONAL CORRELATES OF DEPRESSION: AN ANALYSIS OF THE REDUNDANCY BETWEEN BECK'S COGNITIVE TRIAD AND SELIGMAN'S ATTRIBUTIONAL STYLES

by

Kent W. Anderson

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

UTAH STATE UNIVERSITY
Logan, Utah

1990

ACKNOWLEDGEMENTS

I would like to express my gratitude for the many hours of patient help and direction given me by my committee: Dr. Jay Skidmore, Dr. David Stein, and Dr. Keith Checketts. They made the process much more bearable and I greatly benefitted from their knowledge and counsel. I would also like to thank Kristen Wilson for her research assistance and help in writing portions of this thesis, as well as Shane and Judy Jones for their hours of help on this project.

I am especially grateful to my family, who always encourage me and provide much needed moral support. Their constant belief in me is a perpetual challenge to do the best that I can.

Kent W. Anderson

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ABSTRACT

Cognitive and Attributional Correlates of Depression: An Analysis of the Redundancy Between Beck's Cognitive Triad and Seligman's Attributional Styles

by

Kent W. Anderson, Master of Science

Utah State University, 1990

Major Professor: Dr. Jay R. Skidmore
Department: Psychology

The purpose of this study was to examine the degree of redundancy between two prominent cognitive theories of depression: Beck's cognitive triad and Seligman's attributional triad. Three hundred and eighteen subjects were recruited from nine different psychology courses at Utah State University and affiliated locations across the state. Subjects completed the Cognitive Triad Inventory (CTI), the Attributional Style Questionnaire (ASQ), and the Beck Depression Inventory (BDI).

Results indicate that the three CTI subscales (self, world, and future) and the three ASQ subscales (internal, global, and stable) did not correlate sufficiently to merit integration across measures. However, factor analyses reduced the three CTI constructs to two factors:

a security/insecurity factor and the presence/absence of stressors. The ASQ also was reducible to two factors: a global/stable factor and an internal factor. The new CTI and ASQ factors could predict depression scores on the BDI equally as well as the CTI subscales and ASQ subscales, respectively.

(99 pages)

CHAPTER I

INTRODUCTION

Recently there has been a substantial increase in the study of depression. Many concomitants of depression have been investigated, including physiological, biochemical, genetic, psychosocial, and environmental factors. However, comprehensive theoretical development has focused on the cognitive correlates of depression.

Two of the more prominent cognitive theories are Beck's concept of maladaptive thinking (Beck, 1972; Beck, Rush, Shaw, & Emery, 1979) and Seligman's concept of negative attributions (Seligman, 1975, 1980). Essentially, Beck believes that depressed people view themselves, their world, and the future in a negative way. Seligman states that depressed people interpret negative events as having some internal (i.e., personal) cause, believe that similar negative events permeate almost all aspects of their lives and conclude that negative circumstances seem to be continuous over time. [items in a series must be parallel in construction] Figure 1 illustrates the basic outline of these theories.

Although these two paradigms are presented as separate models, Beck's "cognitive triad" of maladaptive thinking and Seligman's "depressive attributional style" appear to overlap conceptually. It appears that Beck's "negative view of self" is strikingly similar to Seligman's "internal attribution of negative events."

Beck's Theory

Depressives	Nondepressives
1. Negative view of themselves.	1. Positive or non-negative view of themselves.
2. Negative opinion about the world and their surroundings.	2. Feels good about their environment and the world.
3. Negative expectation for the future.	3. Positive hope for the future.

Seligman's Theory

After Negative Events:

Depressives	Nondepressives
1. Attribute the outcome to themselves or some internal flaw.	1. Blame external circumstances for the negative event.
2. Believe that similar negative events happen in other aspects of their lives.	2. Believe that the negative event is unique to that particular situation.
3. Believe that negative events will continue to happen throughout their life.	3. Believe that the negative circumstances will not continue beyond the present moment.

After Positive Events:

Depressives	Nondepressives
1. Discredit the events by attributing the successes to luck or external factors.	1. Attribute the positive outcome to their own talents or ability.
2. Believe that the outcome is unique to the particular setting and won't generalize.	2. Believe that the outcome will happen in a variety of settings.
3. Believe that the desirable outcome will rarely happen in the future.	3. Believe that their life will continue to be full of positive experiences.

Figure 1: Diagram of Beck's and Seligman's theories.

Likewise, Beck's "negative view of the world" and Seligman's "global attributions" appear to be quite similar, as do Beck's "negative view of the future" and Seligman's "stable attributions." Beck offers definitions of the constructs in his triad that just as effectively define Seligman's triad, and vice versa. Although attempts have been made to examine the interrelatedness of other theories of depression (Lewinsohn, Larson, & Munoz, 1982; Ingram, 1984), there have been no studies that have specifically examined the redundancy of Beck's and Seligman's theories.

Numerous studies have demonstrated that theoretical constructs from both models are indeed related to depression. Both theories consistently show a positive, yet mild, relationship to depression. However, some studies validate some constructs of these theorists while discrediting others. For instance, some studies have found that Beck's "negative view of self" and Seligman's "internal attribution of negative events" were the only constructs significantly correlatable with depression (Lewinsohn et al., 1982; Hoh, McLennan, & Ho, 1987).

This presents the question of whether all six constructs under investigation are reliable correlates of depression or if there are a smaller number of basic underlying factors that are involved in depression.

Lewinsohn, Larson, and Munoz (1982), after examining the degree of interrelatedness between several theories of depression, suggested that there may be a "general underlying dimension" that is common in all theories of depression.

There remains a lack of research that statistically explores the congruence between Beck's self-world-future triad and Seligman's internal-global-stable triad. More specifically, there are no empirical studies that examine the degree of interrelatedness between the self-internal constructs, the world-global constructs, and the future-stable constructs. Further, there is a lack of research focusing on which factor or combination of factors in Beck's and Seligman's theories most strongly correlate with depression.

CHAPTER II

REVIEW OF THE LITERATURE

Overview of Beck's Theory

Beck first articulated his theory by publishing a book on the various aspects of depression (1967). Through systematic research and clinical experience, he developed a comprehensive cognitive theory of depression (Beck, 1972; Beck et al., 1979). His theory is based on the idea that depressed people filter their experience in a negative, maladaptive manner.

These thought distortions lead to the development of a negative "cognitive triad" (Beck, 1972; Beck et al., 1979). That is, depressed persons view themselves, their world, and the future in a negative fashion. Depressed persons devalue themselves and believe that there is something inherently wrong with them. The depressed person also "inappropriately interprets his experience as detracting from him in some substantive way" (1972, p. 255). Finally, the depressive also forecasts that no significant change in this deprived state will take place in the future.

Findings on Beck's Theory

Although Beck (1972; Beck et al., 1979) proposed that the cognitive triad is a crucial element in depressive thinking, he never designed an instrument to quantify the

different dimensions of self, world, and future. Research on the relationship between these dimensions has been meager and has used various indirect measures to quantify the cognitive triad since no conventional measure has existed until recently (Beckham, Leber, Watkins, Boyer, & Cook, 1986).

However, research has generally supported the relationship of a negative view of self and depression. For instance, it has been demonstrated that depressives focus more on self after failure than after success (Greenberg & Pyszczynski, 1986). They have greater self-focus and lower expectations than nondepressives (Strack, Blaney, Ganellen, & Coyne, 1985) and show negative evaluative tendencies when assessing self-attributes (Ruehlman, West, & Pasahow, 1985). In fact, a negative view of self is so consistently linked with depression that Willner (1984), in a review of the literature on the cognitive triad, suggests that a negative view of self underlies depressives' negativity in terms of world and future dimensions.

The world and future dimensions have not been as extensively studied as the self-construct. However, indirect support of the world construct comes from studies showing that depressives underestimate the frequency of reinforcement and overestimate the frequency of punishment (Nelson & Craighead, 1977) and distort the amount of

positive and negative feedback received (DeMonbreun & Craighead, 1977). These biases in perception can lead to a belief that the world is a hostile place. Blackburn and Eunson (1989) claimed that both the self and the world are valid indicators of depression. However, Lewinsohn et al. (1982) have shown that depressives only adhere to negative expectations for the self, not for the world.

Support for the relationship between a negative view of the future and depression can be indirectly found in the studies on hopelessness and depression. It has been shown that high levels of hopelessness can distinguish depression from other DSM-III disorders (Beck, Riskind, Brown, & Steer, 1988). Another study showed that chronic feelings of helplessness are accurate predictors of later depression (Rholes, Riskind, & Neville, 1985).

Finally, the reason that all the dimensions show some relationship to depression could be that there is an underlying dimension that permeates all three constructs and correlates with depression. This line of reasoning stems from the finding that all three constructs highly intercorrelate (.59 to .70) on the Cognitive Triad Inventory (CTI), (Beckham et al., 1986). Thus, it is possible that a single underlying dimension can more parsimoniously account for the relationship between negative cognitions and depression, since the three proposed constructs may not be independent constructs.

Overview of Seligman's Theory

In Seligman's original learned helplessness studies (1975, 1980), he placed dogs in a room where they experienced inescapable shock. This continued until the dogs had given up any attempts to escape. He then made it possible for the dogs to escape with little effort. However, the dogs seemingly had learned that their condition was hopeless and it was futile to try to escape. The dogs displayed behaviors indicative of depression, such as apathy, reduced food intake, and whining. From these experiments, Seligman hypothesized that depression is caused by feelings of helplessness in an incongruent, unpredictable environment.

There were several flaws in Seligman's original model. For instance, he did not explain why some dogs simply gave up while others were more resilient and would escape when the opportunity arose. Also, the simplistic concept of learned helplessness taken from an animal paradigm was not comprehensive enough to account for the many complexities found in human depression. Therefore, Seligman (1980) reformulated the learned helplessness model to include the attributional styles of different individuals. In other words, attributions about a particular outcome were made along a continuum of internal-external (more likely to happen to me-as likely to happen to others as to me), stable-unstable (is

recurrent over time-rarely happens), and global-specific (outcome constant across situations-specific to this incidence). The attributional style of a depressed person is internal-stable-global for negative outcomes and external-unstable-specific for positive outcomes.

Findings on Seligman's Theory

Seligman's proposal of a depressive attributional style has stimulated a large body of research. Seligman and associates (Seligman, Abramson, Semmel, & von Baeyer, 1979; Peterson, Bettes, & Seligman, 1982; Seligman, Peterson, Kaslow, Tanenbaum, Alloy, & Abramson, 1984; Raps, Peterson, Reinhard, Abramson, & Seligman, 1982) have shown that depressives attribute negative outcomes to internal, stable, and global factors. These studies yield a significant relationship between all three attributional factors and depression. On the other hand, several researchers have obtained nonsignificant results for one or more of the attributional dimensions (Ganellen, 1988; Hoh et al., 1987; Metalsky, Abramson, Seligman, Semmel, & Peterson, 1982; Persons & Rao, 1981).

The most comprehensive summary of data on the validity of Seligman's theory is a meta-analytic review conducted on 104 studies, which assessed the relationship between Seligman's attributional style and depressive symptomology (Sweeney, Anderson, & Bailey, 1986). Results indicate that internal, stable, and global attributions

were all significantly correlated to depression for negative events. The attenuated effect sizes between the internal, stable, and global constructs and depression were .36, .37, and .44, respectively. Therefore, research on the three attributional dimensions tends to show a mild relationship with depression.

Comparison of Beck's and Seligman's Theories

Although presented as separate models, many similarities are evident between Beck's and Seligman's theories. In particular, Beck's definitions of each construct in the cognitive triad appear to strongly parallel the three constructs in Seligman's attributional triad, and vice-versa. A comparative analysis of the definitions offered by each theorist will illustrate this redundancy among constructs.

Self/internal constructs. Pertaining to his self-construct, Beck asserts that a depressed person "tends to attribute his unpleasant experiences to a psychological, moral, or physical defect in himself" (Beck et al., 1979, p. 11); or in other words, "he is likely to assign the cause of the adverse event to an heinous defect in himself" (1976, p. 112). Similarly, Seligman believes that depressed individuals "make internal attributions for failures" (1980, p. 12). Beck and Seligman have provided

a redundant definition in that both claim depressives believe the cause of negative events lies within the self.

Beck and Seligman also appear to share similar points of view with regard to the relationship between social comparison and self-esteem in the self/internal constructs. Beck states that the "tendency to compare oneself with others further lowers self-esteem" since "every encounter with another may be turned into a negative self-evaluation" (1976, p. 113). A person may be walking down the street and decide, "Those girls are pretty, but I am not because I am short and fat." Similarly, Seligman defines personal helplessness as "the cause where the individual believes that there exists responses that would produce the desired outcome, although he or she does not possess them" (1980, p. 11). Because the depressive believes that he or she lacks essential positive attributes in comparison to significant others, he or she "will show lower self-esteem" (1980, p. 16). Thus, it is evident that both theorists agree that social comparison can result in self-esteem deficits in depressives.

<u>World/global constructs</u>. Comparisons also exist between the definitions given for the world construct and the global construct. Beck defines his world construct when he asserts that the depressive "expects the outcome of any activity he undertakes to be negative" (1976,

p. 264) and has "negative expectancies as to the probable success of anything he undertakes" (Beck et al., 1979, p. 99). Seligman points to depressed individuals' beliefs in the generality of negative outcomes. He suggests that depressives believe that their helplessness extends across many different situations and is hence, global. He says, "when individuals confront new situations, they will expect that outcomes will again be independent of their responses" (1980, p. 15). Stated differently, "an attribution to global factors predicts that the expectation (of helplessness) will recur even when the situation changes" (1975, p. 59). An example illustrative of both theorists definitions is the deserted husband who believes that he has not only failed in marriage, but is also failing at his job and as a father. By examination of the definitions given of the world and global constructs, it is clear that both Beck and Seligman assert that the depressed person believes bad outcomes will permeate many different, yet unrelated, situations.

Future/stable constructs. Finally, redundancies are found in the definitions of Beck's future construct and Seligman's stable construct. Beck maintains that the depressive assumes that his or her problems will remain stable. He declares, "the depressed patient thinks in terms of a future in which his present condition (financial, social, physical) will continue or will even

get worse" (Beck, 1972, p. 23). Beck also states that when a depressed person "considers undertaking a specific task in the immediate future, he expects to fail" (Beck et al., 1979, p. 11). Seligman concludes that a person will manifest depressogenic symptoms if he or she makes a "stable attribution because it implies to (him or her) that (he or she) will lack the controlling response in the future" (Seligman, 1980, p. 15). He further parallels Beck when he states that the depressive "will expect to be helpless in the distant future as well as in the immediate future" (1975, p. 59). Thus, both Beck and Seligman view the depressed person as having the assumption that negative events will continue in the future.

Additionally, both theorists employ the concept of hopelessness in their definitions of the future/stable constructs. Beck states that the depressed patient will assume the attitude that "the future is hopeless because I cannot do anything constructive" (1976, p. 268). Likewise, Seligman maintains that "the future will seem hopeless" (Seligman, 1980, p. 17) and "will look black" (1975, p. 59) to the depressive because he expects to always be helpless.

Finally, Beck and Seligman take a similar stance on the relationship of the self/internal dimensions to the future/stable dimensions. Beck writes, "since he [the depressed patient] considers the deficiency an integral

part of himself, he is likely to regard it as permanent" (1976, p. 117). For example, if a person believes he lacks intelligence, he will also tend to believe that his presumed deficiency will also be present in the future. Seligman elaborates on this very same idea when he states, "because 'I' is something you carry around with you, attributing causes of helplessness internally often...implies a more consistent outcome in the future" (1980, p. 13).

In summary, this semantical analysis illustrates that parallels exist between Beck's cognitive triad and Seligman's attributional triad. It appears that the theorists offer redundant definitions of supposedly different constructs. It is evident that Beck and Seligman share comparable views on central constructs of their theories of depression (i.e., the self/internal constructs, the world/global constructs, and the future/stable constructs).

Purpose

As more cognitive theories of depression are developed, our understanding of the specific cognitions involved with unipolar affective disorder will become more convoluted. Clarity will come through integrating redundant constructs of already existing theories, as well as discovering the most parsimonious description of depressive cognitions. Ingram (1984) attempted to unite

several theories using an informational-processing approach. He attempted to descriptively integrate several theories into one cohesive model, although his methodology is questionable for several reasons. One problem was that he did not conduct controlled experiments to validate his idea. He also tried to consolidate five theories at once which might have been overly ambitious. In spite of these deficiencies, the idea of integrating the cognitive theories is a goal that should be pursued.

The integration of theoretical constructs should be completed systematically and be based on empirical evidence in order to better ensure construct validity. The proposed study attempts to clarify the relationship between Beck's cognitive triad, as measured by the Cognitive Triad Inventory (CTI) (Beckham et al., 1986) and Seligman's attributional style of depression, as measured by the Attributional Style Questionnaire (ASQ) (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). The degree of redundancy between the constructs provided by each theorist will be determined using correlational techniques.

Ancillary to this objective, the most parsimonious set of factors that underlie the items on the CTI and ASQ will be extracted using principal-components factor analysis. Finally, depression scores as measured by the Beck Depression Inventory (BDI) will be regressed onto the

factors that are identified through the factor analysis in order to determine their relative importance. BDI scores will be regressed onto the derived factors, the CTI, and the ASQ to determine if the parsimonious factors obtained in this study indeed account for more variance in depression scores than either the CTI or ASQ.

It is hypothesized that scores for the "self" construct in Beck's theory will correlate higher with the "internal" construct in Seligman's theory than with any other construct. Scores for the "world" and "global" constructs are also predicted to be highly interrelated, as well as the "future" and "stable" constructs.

However, positive correlations are expected among all six constructs. Thus, it is hypothesized that the constructs will be reduced to fewer independent factor(s). Two possible solutions seem probable: (a) that three factors will emerge, a self/internal factor, a world/global factor, and a future/stable factor, or (b) that there will be less than three dimensions due to the high correlation and lack of independence of the six constructs. If three factors are derived, we can conclude that Beck and Seligman are correct in asserting that there are three independent cognitive dimensions underlying depressive cognitions. If less than three factors emerge, we can conclude that the cognitions associated with depression can be more parsimoniously represented.

CHAPTER THREE

METHOD

Subjects

Gorsuch (1983) states that a common ratio used to calculate the number of subjects for a factor analytic procedure is five individuals to every variable. Considering each item on the Attributional Style Questionnaire and the Cognitive Triad Inventory as a variable (total number of questions = 48), a minimal sample size for this project would be 250. The total number of subjects used in this experiment was 318, which minimally exceeds the recommended criterion.

All participants were recruited from undergraduate psychology courses offered by Utah State University (including extension courses and telecommunications classes offered in various cities in Utah). A total of nine classes from seven different locations around the state were involved in the study. Demographics of the participants are found in Table 1.

All subjects were approached in their classes and were told that they could participate in a study about "different moods and attitudes" for one hour of extra credit. The procedure to fill out the inventories was explained and all interested students signed and returned a consent form before leaving the class. This consent form adhered to the stipulations of the American

Psychological Association's guidelines for research with human subjects (APA, 1987) and the policies of Utah State University. A copy of the consent form, the statement to the Institutional Review Board, and IRB approval are included in Appendix A.

Table 1

Subject Characteristics: Frequency and Percentages

Characteristic	Frequency	Percent
Sex		
Male	114	35.8
Female	151	47.5
Unknown	53	16.7
Marital Status		
Married	82	25.8
Single	158	49.7
Divorced/Widowed	18	5.6
Unknown	60	18.9
Age		
16-19	71	22.3
20-24	112	35.2
25-29	25	7.9
30-34	15	4.7
34-39	22	6.9
40+	15	4.7
Unknown	58	18.2
Education Level		
Less than high school	1	0.3
Freshman	26	8.2
Sophomore	57	17.9
Junior	46	14.5
Senior	32	10.1
College Graduate	15	4.7
Graduate Student	1	0.3
Unknown	140	44.0

Measures

Subjects completed three different measures: the Attributional Style Questionnaire, the Cognitive Triad Inventory, and the Beck Depression Inventory.

Attributional Style Questionnaire (ASQ). The Attributional Style Questionnaire (Peterson et al., 1982; see Appendix B) was developed to operationalize the internal-global-stable constructs in Seligman's attributional theory. The questionnaire consists of 12 hypothetical events, six of which are positive events and six which are negative. The subject is asked to vividly imagine a particular situation and asked to write down a major cause of the outcome. Then the subject rates each cause on a seven-point scale for the degree of internality, globality, and stability.

The instrument has been reported to possess adequate reliability and validity (Peterson & Seligman, 1984), with test-retest correlations varying from r = .58 to r = .70 for the different attributional dimensions (Peterson et al., 1982). Although these correlations are mild, part of this seems to be due to the small number of items comprising each dimension. When the number of items is increased, the reliability coefficients also increase (Peterson & Seligman, 1984). However, since more than 100 studies have been conducted using the current ASQ to measure attributions (Sweeney et al., 1986) and the

lengthier version is still in the developmental stage, the 12 events version of the ASQ will be used.

Cognitive Triad Inventory (CTI). The Cognitive Triad Inventory (Beckham et al., 1986; see Appendix C) was developed to measure the self-world-future constructs of Beck's paradigm. The inventory consists of 36 items that are phrased in both a positive and negative fashion. Respondents indicate how the item applies to them, choosing their answer on a seven-point scale ranging from totally agree to totally disagree. Ten items each are used to comprise the view of self, view of world, and view of future categories. The six remaining items were left on the scale even though they are not part of any category. The prototype scales yield excellent internal reliability coefficients (view of self alpha = .85, view of world alpha = .79, view of future alpha = .92, and overall inventory alpha = .93). Convergent validity coefficients averaged $\underline{r}$ = .815, while discriminant validity averaged $\underline{r}$ = .604. For further discussion on the validity and reliability of the measure, refer to Beckham et al.'s article (1986).

Beck Depression Inventory (BDI). The Beck Depression Inventory will be used to measure depression. The BDI (Beck et al., 1979; see Appendix D) is a 21-item instrument designed to measure the severity of depression in adults and adolescents. Each item is ranked on a 4-

point scale ranging from 0 to 3. Subjects are asked to indicate how they has felt during the past week, including today. Higher scores indicate more severe depression.

Several studies have tested the reliability of the BDI. One study found a test-retest reliability of .64 after a one-week interval (Zimmerman, 1986), while another study found a test-retest correlation of .90 over a two-week period using a similar sample (Lightfoot & Oliver, 1985). Most studies have found test-retest correlations between .60 to .90 (Beck, Steer, & Garbin, 1988). Concurrent validity has been found to vary from .60 and .72 between clinical ratings of depression and BDI scores (Beck et al., 1988b). Numerous other studies have been conducted to test the validity of the BDI and are reported in the manual for the Beck Depression Inventory (Beck & Steer, 1987).

Procedures

Subjects were recruited from college classes at Utah State University in Logan and surrounding cities participating in extension courses with the university. Subjects were recruited from undergraduate psychology courses. They were recruited in their classes by the principal investigator or a trained research assistant and informed of the study. The students were informed that they would receive one hour's extra credit when they completed the three inventories.

The students then received instructions on how to fill out the Cognitive Triad Inventory, the Attributional Style Questionnaire, and the Beck Depression Inventory. They were further instructed to complete all three inventories in one setting, to fill out every item, and to answer all demographic information on the Beck Depression Inventory except their names. Inventories were identified by number only to ensure confidentiality.

Students turned in their signed consent forms as they left the classroom. They were instructed to return the completed inventories within a week's time to one of two locations on campus. Those students filling out the questionnaires in locations outside of Logan sent them in with the normal correspondence coming to the university. A list of extra credit participants was made by matching the number of the completed inventory to the number on the consent form. The name of the subject was never associated with the actual data on the inventory.

CHAPTER FOUR

RESULTS

The results of this study are subdivided into four separate sections: (a) the correlational matrices between the subscales on the Cognitive Triad Inventory and the Attributional Style Questionnaire, (b) the results of the factor analysis of the ASQ and CTI, (c) the various regression analyses examining the amount of variance in Beck Depression Inventory scores accounted for by the ASQ and CTI as they now exist, along with the amount of variance in depression scores accounted for by the new factor structures on the two measures and (d) a critical analysis of the psychometric properties of the instruments used in this study.

Correlational Matrices

Table 2 presents the breakdown of CTI items into various subscales. The correlational matrix of the CTI and ASQ subscales is presented in Table 3. As can be seen, correlations between the self/internal, world/global, or future/stable dimensions were not notably higher than other correlations involving subscales from two different measures. The self subscale correlated higher with the internal subscale than with any other subscale on the ASQ (r = .28, p <.01), as did the world construct with the global construct (r = .28, p <.01).

Table 2

Items on Subscales of the CTI

SELF CONSTRUCT

Positively-worded items

17. I am as adequate as other people I know.
25. I can do a lot of things well.
31. I am a worthwhile human being.
33. I like myself.

Negatively-worded items

5. I am a failure.
10. I have messed up almost all the important relationships I have ever had.
13. I can't do anything right.
21. I hate myself.
29. I am guilty of a great many things.
35. I have serious flaws in my character.

WORLD CONSTRUCT

Positively-worded items

3. Most people are friendly and helpful.
8. The people I know help me when I need it.
12. My daily activities are fun and rewarding.
20. The important people in my life are helpful and supportive.
24. I have a spouse or friend who is warm and supportive.

Negatively-worded items

18. The world is a very hostile place.
23. Bad things happen to me a lot.
27. My family doesn't care what happens to me.
30. No matter what I do, others make it difficult for me to get what I need.
34. I am faced with many difficulties.

FUTURE CONSTRUCT

Positively-worded items

6. I like to think about good things that lie ahead of me.
9. I expect that things will be going very well for me a few years from now.
11. The future holds a lot of excitement for me.
28. Things will work out well for me in the future.
36. I expect to be content and satisfied as the years go by.

(table continues)

Table 2 (cont)

Negatively-worded items

15. There is nothing left in my life to look forward to.
16. My current problems or concerns will always be there in one way or another.
19. There is no reason for me to be hopeful about my future.
26. My future is simply too awful to think about.
32. There is nothing to look forward to in the years ahead.

Table 3

Correlations Among the Constructs

	1	2	3	4	5	6
1. view of self	1.00	--	--	--	--	--
2. view of world	.71**	1.00	--	--	--	--
3. view of future	.71**	.63**	1.00	--	--	--
4. internal attrib	.28**	.12	.25**	1.00	--	--
5. global attrib	.26**	.28**	.21**	.30**	1.00	--
6. stable attrib	.13*	.24**	.13	.20**	.49**	1.00

Number of Cases: 318 1-tailed significance: *=.05, **=.01

Although these correlations are highly significant statistically, there is not a high enough correlation to be able to suggest that they are redundant constructs. The future dimension did not yield the predicted relationship with the stable dimension (r = .13, n.s.). The correlations between each of the subscales from the ASQ and other subscales were surprisingly low. The low correlations could either suggest that the three subscales indeed measure unique, independent constructs or that the

questionnaire simply is a poor measure of the constructs since it does not correlate with conceptually similar subscales. To examine this question, correlations between positive and negative events on the three dimensions of internality, globality, and stability were examined (positive responses were reverse coded to be congruent with the responses to the negative items). Thus, strong positive correlations are expected between positive and negative items of each subscale. This correlational analysis can be found in Table 4. It should also be noted that the high correlations among CTI subscales suggest that the CTI is highly redundant and reducible to a smaller number of factors.

Table 4

Correlations Between Positive and Negative Items on the ASQ

	1	2	3	4	5	6
1 positive internal	1.00	--	--	--	--	--
2 negative internal	.09	1.00	--	--	--	--
3 positive global	.38**	.10	1.00	--	--	--
4 negative global	.19**	.30**	-.21**	1.00	--	--
5 positive stable	.59**	.10	.52**	.04	1.00	--
6 negative stable	.17*	.20**	.05	.49**	.05	1.00

Number of Cases: 318 1-Tailed significance: *=.05, **=.01

It is interesting to note that there was virtually no relationship between positive and negative internal attributional scores, nor between positive and negative stable attributional scores. The relationship between positive and negative global attributional scores was even more unexpected; there existed a significant negative relationship. This was unexpected, since the reverse item scoring of the positive items would indicate that any relationship should only yield a positive correlation if the items indeed are measuring the same construct.

The lack of significant correlations between positive and negative causal attributions of the same construct (internal, global, and stable) suggest that the construct validity of the ASQ is very poor and/or that there is a difference in response tendencies to negative versus positive items. To examine the possibility of the latter assumption, the CTI was also compared for its intercorrelations among subscales depending on whether the item was positively or negatively phrased. This matrix can be found in Table 5. On the CTI, correlations between positively and negatively worded items are highly significant, suggesting that the ASQ indeed has very poor construct validity.

Table 5

Correlations Between Positive and Negative Items on the CTI

	1	2	3	4	5	6
1 positive self	1.00	--	--	--	--	--
2 negative self	.67**	1.00	--	--	--	--
3 positive world	.57**	.49**	1.00	--	--	--
4 negative world	.52**	.65**	.52**	1.00	--	--
5 positive future	.59**	.55**	.59**	.62**	1.00	--
6 negative future	.56**	.58**	.46**	.33**	.55**	1.00

Number of Cases: 318 1-Tailed significance: *=.05, **=.01

Note: correlations in bold represent correlations between positive and negative items from the same subscale

Factor Analyses Results

Factor selection criteria. The following selection criteria were used in determining the number of factors to be used in the solution: (a) each factor had to be composed of at least three items with factor loadings of .50 or greater and/or at least five items with loadings of .30 or greater, (b) each factor had to have a minimum Eigenvalue of 1 which is the criterion cut-off point in SPSS (Norusis, 1988), (c) each factor must account for at least 3% of the total variance, and (d) subjective decision based on scree plot criteria (Cattell, 1978). The first criterion was the most important rule for determining the selection of factors. The scree plot was used only if the first three criteria did not specify the

number of factors and when an obvious break existed. The SPSS software program was used for all computations.

Factor analysis of ASQ and CTI. Initially, principal components factor analysis using varimax rotation was done on all items on the CTI and the negative items on the ASQ. Forty-eight items made up the total pool of variables, including the 30 questions from the CTI and the 18 from the negative events of the ASQ. When attempted, the SPSS program gave a warning that the correlational matrix was ill-conditioned for the analysis. Inter-item correlations were examined and it was determined that the very low correlations between the ASQ and CTI items were the reason for the warning. However, the analysis was carried out in spite of the warning since this strategy was part of the initial research proposal. The resulting scree plot is found in Figure 2.

After applying the criteria rules for factor inclusion (see "Factor selection criteria", p. 28), four factors remained. The factor loadings for each item are found in Table 6, along with the percent of variance accounted for by each additional factor. The items are listed according to their subscales. It is interesting that both the CTI and the ASQ break down into two, rather than three, factors. Also of interest is the lack of crossover between items from the CTI and the ASQ. This is largely due to the low correlations between the CTI subscales and the ASQ subscales (see Table 3).

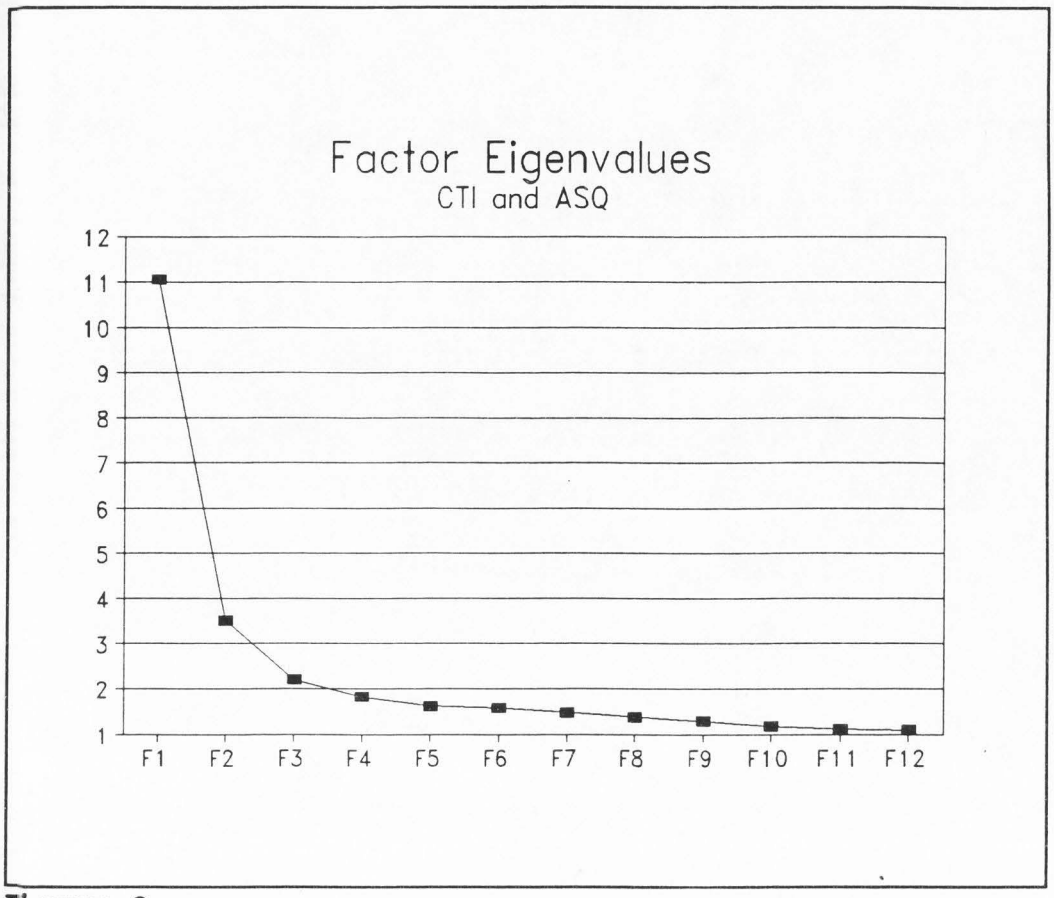

Figure 2

Figure 2. Factor eigenvalues: CTI and ASQ.

The two factors comprised of ASQ items were easy to interpret. One factor was loaded with stable and global attributions, whereas internal attributions were a unique and separate factor (see Table 6). These results call into question whether the dimensions of stability and globality are separate dimensions or if they really measure the same construct (perhaps a feeling of the ubiquity of negative events in their life).

Table 6

Factor Loadings and Percent of Variance:
Items of CTI and ASQ

Factor 1

item	item's subscale	factor loading
CTI 28	future (neg)	.799
CTI 11	future (pos)	.751
CTI 33	self (pos)	.729
CTI 32	future (neg)	.726
CTI 26	future (neg)	.679
CTI 19	future (neg)	.679
CTI 15	future (neg)	.663
CTI 25	self (pos)	.655
CTI 9	future (pos)	.644
CTI 21	self (neg)	.643
CTI 20	world (pos)	.617
CTI 6	future (pos)	.603
CTI 5	self (neg)	.602
CTI 36	future (pos)	.586
CTI 31	self (pos)	.564
CTI 13	self (neg)	.556
CTI 24	world (pos)	.534
CTI 27	world (neg)	.505
CTI 8	world (pos)	.454
CTI 17	self (pos)	.418
CTI 12	world (pos)	.407

Factor 2

item	item's subscale	factor loading
CTI 29	self (neg)	.708
CTI 23	world (neg)	.667
CTI 34	world (neg)	.645
CTI 35	self (neg)	.620
CTI 18	world (neg)	.577
CTI 30	world (neg)	.557
CTI 10	self (neg)	.513
CTI 16	future (neg)	.420

(table continues)

Table 6 (cont)

Factor 3

item	item's subscale	factor loading
ASQ 23	stable	.617
ASQ 24	global	.619
ASQ 20	stable	.588
ASQ 32	stable	.583
ASQ 21	global	.558
ASQ 33	global	.546
ASQ 14	stable	.478
ASQ 5	stable	.452
ASQ 12	global	.445
ASQ 11	stable	.441
ASQ 15	global	.423
ASQ 6	global	.392

Factor 4

item	item's subscale	factor loading
ASQ 22	internal	.579
ASQ 13	internal	.505
ASQ 31	internal	.474
ASQ 4	internal	.434
CTI 3	world (pos)	-.393

Factor	Eigenvalue	% of Variance	Cumulative %
1	11.06	23.0	23.0
2	3.51	7.3	30.3
3	2.21	4.6	34.9
4	1.82	3.8	38.7

Note: (pos) and (neg) refer to positively and negatively worded items. This information was included since it seems to contribute to the interpretability of factors.

The two factors from the CTI are not as easily interpretable. The first factor is made up of all future items and all the positively worded self and world items. Half of the negatively worded self items were also loaded

highly on this first factor. The second factor is comprised solely of negatively worded self and world items. No future items nor positively phrased questions were found on this factor (see Table 6, p. 31).

The questions that made up each factor were analyzed as a group to determine what was the underlying theme of the factor. Although this analysis is highly subjective, it still sheds more light on the meaning of the factors than the analysis presented in the previous paragraph. The questions from the CTI that make up the two factors are found in Tables 7 and 8.

Table 7

CTI Questions Loading on Factor 1

1. Things will work out well for me in the future.
2. The future holds a lot of excitement for me.
3. I like myself.
4. There is nothing to look forward to in the future.
5. My future is simply too awful to think about.
6. There is no reason for me to be hopeful about my future.
7. There is nothing in my life to look forward to.
8. I can do a lot of things well.
9. I expect that things will be going very well for me a few years from now.
10. I hate myself.
11. The important people in my life are helpful and supportive.
12. I like to think about the good things that lie ahead of me.
13. I am a failure.
14. I expect to be content and happy as the years go by.
15. I am a worthwhile human being.
16. I can't do anything right.
17. I have a spouse or friend who is warm and supportive.
18. My family doesn't care what happens to me.
19. The people I know help me when I need it.
20. I am as adequate as other people I know.
21. My daily activities are fun and rewarding.

Table 8

CTI Questions Loading on Factor 2.

1. I am guilty of a great many things.
2. Bad things happen to me a lot.
3. I am faced with many difficulties.
4. I have serious flaws in my character.
5. The world is a very hostile place.
6. No matter what I do, others make it difficult for me to get what I need.
7. I have messed up almost all the important relationships I have ever had.
8. My current problems or concerns will always be there in one way or another.

Factor 1 can best be described as security versus insecurity. Healthy people feel adequate about themselves, feel safe and supported in their world, and feel that the future brings excitement and joy. In the case of the maladaptive thinking pattern, these people dislike themselves, don't feel the support of their environment, and are pessimistic about the future.

Factor two, on the other hand, can best be defined as the presence/absence of identifiable burdens or obstacles (stressors). In the case of mentally unhealthy individuals, they believe that they have character flaws that contribute to problems in interpersonal relationship and feelings of guilt. They feel that the world presents many obstacles and impediments to growth and view the world as a hostile place with many burdens that are nearly impossible to surmount. Subsequently, these people believe that their current problems and concerns will continue into the future due to the characterological

flaws and environmental obstacles placed in the way of happiness. Well-adjusted individuals, however, see no major character flaws or other identifiable personal limitations in themselves, don't view the world as an obstacle to overcome, and believe that current problems and stressors are not necessarily interminable.

Although the results of this analysis which included items of the CTI and ASQ have been presented, there is still the need for factor validation due to the questions posed by the ill-conditioned nature of the correlational matrix. Subsequent analyses can be conducted in one of two ways: (a) remove those items that show low correlation with virtually all other items or (b) run separate factor analyses of the ASQ and CTI to see if the same factors emerge that emerged in the factor analysis with combined ASQ and CTI items. The former option was rejected, since the elimination of ASQ items with low correlations would leave only three of the eighteen original ASQ items. This would render the three ASQ factors virtually useless, since the items to comprise the subscales will almost all be eliminated from the item pool.

Given that the CTI and ASQ correlate so mildly that there was no cross-loading of items on any factor (i.e., items from both inventories), it would be enlightening to conduct separate factor analyses on the CTI and ASQ to determine the factor structure of the instruments when

examined independent of each other. If the same resultant factors are found in these independent factor analyses as occurred in this initial analysis then the factor structure previously discussed will be given higher credence.

It is likely that the same factors will emerge for two reasons: (a) the same ASQ and CTI items are used and (b) the initial analysis showed a clear break between loadings of ASQ items on two factors and CTI items on two separate factors. However, it is likewise possible that a new factor solution or a solution with more or less than two factors will emerge.

Since the ASQ and CTI remained separate and independent in the factor analysis, the initial hypothesis that the six constructs under scrutiny would collapse into three constructs (i.e., self/internal, world/global, and future/stable) is not readily supported. However, a more indirect way to examine the possible redundancy of constructs is to see if the three constructs on the CTI collapse into a similar factor structure as the three constructs of the ASQ. For instance, if the CTI is reduced to one factor composed of self and world questions and a second factor of world questions, while the ASQ is reduced to an internal/stable factor and a separate global

factor, then it can be inferred that the reason for the collapse of similar constructs of the CTI and ASQ is due to the similarities in the constructs.

Factor analysis of the ASQ. A factor analysis was performed on the 18 negative items of the ASQ. Unlike the previous factor analysis, the correlational matrix of the ASQ items when examined independent of CTI items warranted no warning of an ill-conditioned matrix. The scree plot of the initial factors can be found in Figure 3. After applying the criteria rules for factor inclusion (see section on "Factor selection criteria," p. 28) two factors remained. A listing of factor loadings and percent of variance accounted for can be found in Table 9.

It can be seen that the factor breakdown is essentially the same as it was on the initial factor analysis with the combined ASQ and CTI items. That is, the two factors from the ASQ were a stable/global combined factor and an internal factor. Thus, both analyses confirm that the ASQ is reducible to two factors: (a) the ubiquitous nature of problematic situations (the combined stable and global factor) and (b) the self-criticism and deprecation of the individual (internal factor).

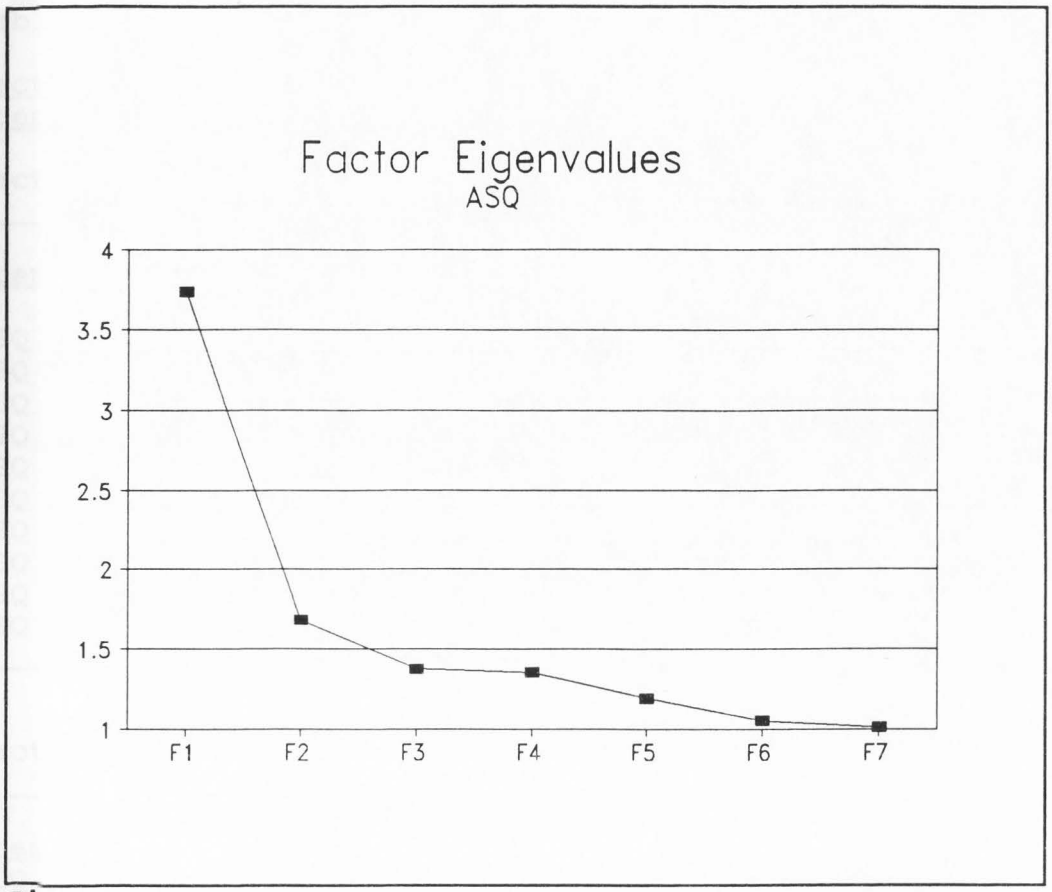

Figure 3

Figure 3. Factor eigenvalues: ASQ.

Factor analysis of the CTI. A factor analysis was conducted on the 30 items comprising the CTI. The correlational matrix rendered correlations of sufficient magnitude as to not elicit a warning of an ill-conditioned correlational matrix. A scree plot of the initial factors can be found in Figure 4.

Table 9

Factor Loadings and Percent of Variance: Items of ASQ

Factor 1

item	item's subscale	factor loading
ASQ 32	stable	.600
ASQ 23	stable	.575
ASQ 15	global	.526
ASQ 21	global	.523
ASQ 12	global	.514
ASQ 6	global	.495
ASQ 14	stable	.474
ASQ 5	stable	.418
ASQ 31	internal	.372
ASQ 11	stable	.367

Factor 2

item	item's subscale	factor loading
ASQ 4	internal	.647
ASQ 13	internal	.570
ASQ 22	internal	.492
ASQ 10	internal	.237

Factor	Eigenvalue	% of Variance	Cumulative %
1	3.73	20.7	20.7
2	1.68	9.3	30.0

Note: items that didn't load .30 or greater on a particular factor were not included. Also, one factor loaded equally well on both factors (.47 on factor one and -.40 on factor 2) and was therefore excluded.

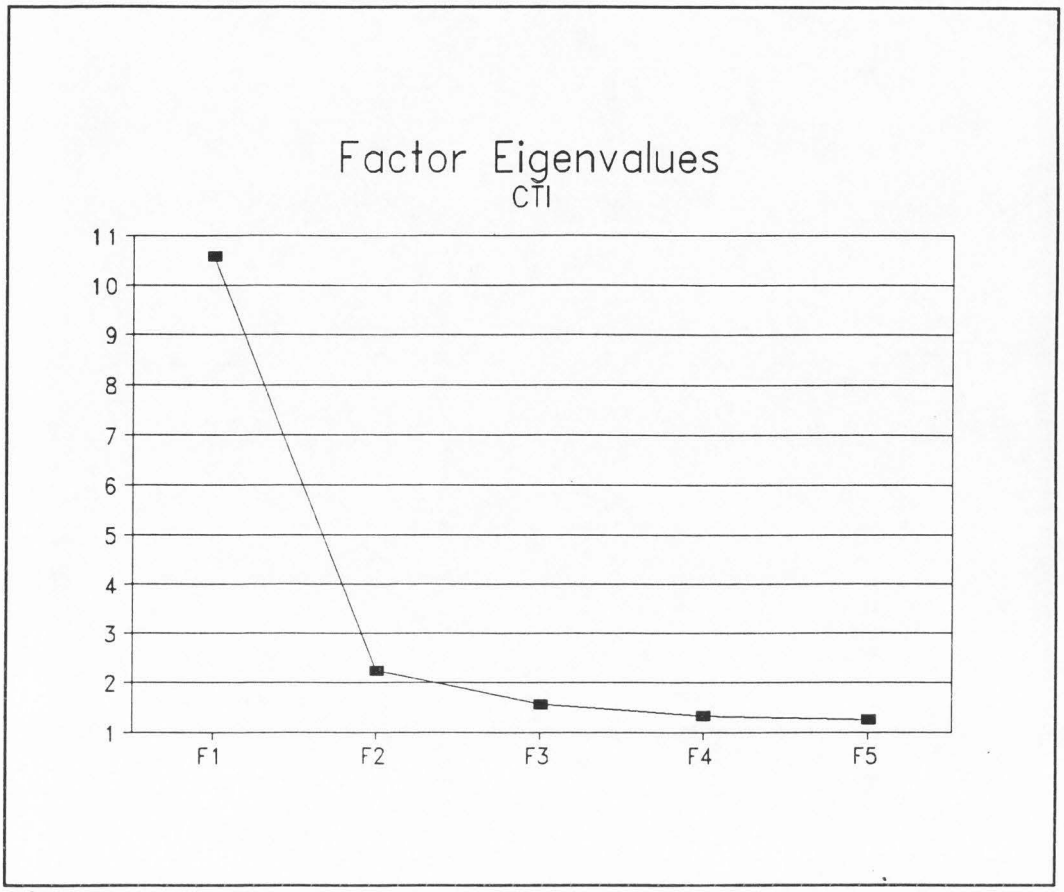

Figure 4

Figure 4. Factor eigenvalues: CTI.

Two factors remained after subjecting all factors to the inclusion specifications (see Table 10). These factors were identical to the two factors on the initial factor analysis of the combined CTI and ASQ (see section on "Factor analysis of ASQ and CTI," p. 29). The magnitude of factor loadings varied somewhat, changing the rank-order of item factor loadings. However, the items comprising the factors were essentially identical in the two analyses (the specific questions are listed in Tables 6 and 7, pp. 31 and 33, respectively).

Table 10

Factor Loadings and Percent of Variance:
Items of CTI

Factor 1

item	item's subscale	factor loading
CTI 28	pos future	.788
CTI 32	neg future	.742
CTI 11	pos future	.738
CTI 33	pos self	.710
CTI 19	neg future	.689
CTI 15	neg future	.676
CTI 26	neg future	.675
CTI 21	neg self	.638
CTI 9	pos future	.630
CTI 25	pos self	.622
CTI 6	pos future	.612
CTI 20	pos world	.612
CTI 5	neg self	.589
CTI 36	pos future	.567
CTI 31	pos self	.557
CTI 24	pos world	.512
CTI 27	neg world	.484
CTI 8	pos world	.377
CTI 17	pos self	.373

Factor 2

item	item's subscale	factor loading
CTI 23	neg world	.715
CTI 29	neg self	.707
CTI 34	neg world	.682
CTI 35	neg self	.664
CTI 30	neg world	.621
CTI 18	neg world	.569
CTI 13	neg self	.531
CTI 10	neg self	.518
CTI 16	neg future	.443
CTI 3	pos world	.416
CTI 12	pos world	.371

Factor	Eigenvalue	% of Variance	Cumulative %
1	10.56	35.2	35.2
2	2.24	7.5	42.7

Thus, it appears that the CTI can be most parimoniously broken down into a security/insecurity factor and a factor representing the presence/absence of identifiable stressors. In the case of a non-depressed person, the security/insecurity factor is composed of self items denoting feelings of self-worth and self-security, world items representing a supportive and helpful environment, and future items comprised of feelings of postive expectations and hopefulness for future achievement and well-being.

The second factor, presence or absence of stressors, is made up of self, world, and future items. For the non-depressive, the self items reflect minimal character flaws or past actions causing guilt and dysphoria. The world items depict a world that allows personal progress without introducing massive obstacles. Future items imply a view of the future in which no burdens are expected to be continuously present in the person's life.

Regression Analyses

Regression of BDI scores on ASQ subscales. A stepwise regression model was used to determine the relative degree of variance in depression scores that were accounted for by the three ASQ subscales (internal, global, and stable). Once again, only responses to negative events were used. Only two of the three subscales accounted for a enough unique variance to remain in the

equation. The most salient subscale in predicting depression scores was the globality of the events, followed by the internal attributions. The stability of the events did not account for enough unique variance to remain in the regression equation. The final statistics of the regression analysis can be found in Table 11.

Table 11

Final Regression Statistics with BDI Scores Regressed on ASQ Subscales

Multiple R = .2859
R Squared = .0818
Adjusted R Squared = .0759

ANOVA Table

	DF	SS	MS	F	Significance
Regression	2	1276.43	638.21	14.02	$p < .0001$
Residual	315	14337.12	45.51		

Variables in Equation

Variables	B	Beta	T	Significant T
Global	.244	.217	3.830	$p = .0002$
Internal	.172	.132	2.340	$p = .0199$
(Constant)	-2.542		-1.200	$p = .2309$

Variable Not in Equation

Variables	Beta In	Partial	T	Significant T
Stable	.0557	.0505	.896	$p = .3709$

Regression of BDI scores on ASQ factors. BDI scores were regressed on the two factors that were extracted from the factor analysis of the ASQ (see section on "Factor analysis of the ASQ," p. 37) using stepwise selection procedures. This was done to determine whether the three subscales of the ASQ or the two factors that resulted from the factor analysis were better predictors of depression scores. Both factors were retained in the regression equation, with the first factor (the combination of global and stable items) accounting for the greatest amount of BDI variance and the second factor (the internal items) accounting for a lesser portion of the variance. Summary statistics of this analysis can be found in Table 12.

Table 12

Final Regression Statistics with BDI Scores Regressed on ASQ Factors

Multiple R = .281
R Squared = .079
Adjusted R Squared = .073

ANOVA Table

	DF	SS	MS	F	Significant F
Regression	2	1229.793	614.896	13.466	$p < .0001$
Residual	315	14383.755	45.663		

Variables in Equation

Variables	B	Beta	T	Significant T
Factor 1	1.651	.235	4.350	$p < .0001$
Factor 2	1.074	.380	2.830	$p = .0050$
(constant)	7.962		21.012	$p < .0001$

Comparisons between these two regression analyses reveals several interesting aspects of the relationship of the BDI and the ASQ. First, both analyses only retained two independent variables in the regression equation even though three independent variables were entered in the first analysis. Since the combined global/stable factor did not account for more variance in depression scores than the global subscale alone, it can be concluded that the stable subscale makes no contribution to the prediction of depression scores.

The total R squared in both analyses was nearly equivalent (total R squared = .081 for the analysis with ASQ subscales, total R squared = .079 for the analysis with the two factors). Thus, using the global and internal items (without the stable item, which accounts for an insignificant amount of unique variance) or the two factor solution (an internal factor and a combined stable/global factor) renders equal predictability in depression scores.

Finally, both solutions account for a very small proportion of the total variance in depression scores. Since the subscale solution and the factor solution both account for less than 10% of total variance in the depression scores, it seriously calls into question the utility of the ASQ as an assessment instrument for depression potentiality. Several psychometric properties

of the ASQ will be discussed in a later section specifically addressing this issue.

Regression of BDI scores on CTI subscales. Stepwise regression was also used to determine the amount of variance in BDI scores that was accounted for by the three subscales of the CTI (self, world, and future) as well as their relative importance in the prediction of depression scores. All three subscales remained in the final equation. The "self" subscale accounted for the most variance in BDI scores, followed by the "world" subscale and finally the "future" subscale. The final statistics of the regression analysis are found in Table 13.

Table 13

Final Regression Statistics with BDI Scores Regressed on CTI Subscales

Multiple R = .728
R Squared = .529
Adjusted R Squared = .525

ANOVA Table

	DF	SS	MS	F	Significant F
Regression	3	8264.232	2754.744	117.697	$p < .0001$
Residual	314	7349.3147	23.405		

Variables in Equation

Variables	B	Beta	T	Significant T
Self	.287	.333	5.345	$p < .0001$
World	.239	.264	4.651	$p < .0001$
Future	.210	.219	3.850	$p = .0001$
(constant)	-8.840		-8.848	$p < .0001$

Regression of BDI scores on CTI factors. BDI scores were regressed on the two factors extracted during the factor analysis of the CTI (see section on "Factor analysis of the CTI", p. 38) to determine their relative importance in predicting depression scores as well as the total amount of variance accounted for by these factors. Factor one (security/insecurity) accounted for the most variance, followed by factor two (presence/absence of stressors). Both factors were retained in the regression equation after applying stepwise elimination procedures. The results of the regression analysis are presented in Table 14.

Table 14

Final Regression Statistics with BDI Scores Regressed on CTI Factors

Multiple R = .733
R Squared = .537
Adjusted R Squared = .537

ANOVA Table

	DF	SS	MS	F	Significant F
Regression	2	8382.890	4191.445	182.598	$p < .0001$
Residual	315	7230.658	22.954		

Variables in Equation

Variables	B	Beta	T	Significant T
Factor 1	3.894	.555	14.470	$p < .0001$
Factor 2	3.359	.479	12.482	$p < .0001$
(constant)	7.962		29.636	$p < .0001$

It can be seen that the two factors account for more variance in depression scores than the three subscales. However, the self subscale alone accounts for nearly 46% of the variance in depression scores, higher than any other single factor or subscale. The other two subscales only account for an additional 7% of the total variance in BDI scores. Yet the combined two factor solution accounts for 54% of the variance and is a better predictor of BDI scores than the three subscale model.

Therefore, the most parsimonious predictor of BDI scores would either be to use the self subscale by itself, or to look at the scores of the two factors. The world and future subscales, as they stand, only contribute minimally to the prediction of depression scores beyond the variance accounted for by the self subscale. This is in accordance with the findings of Giles and Shaw (1987), who report that the self construct is the core of the cognitive triad, while the world and future constructs occur when there is a distorted sense of self.

In conclusion, both the three subscale model and the two factor model of the ASQ account for an equal proportion of variance in BDI scores (about 8%). However, the stability subscale does not account for enough variance, after partialing out the variance accounted for by the internal and global factors, to remain in the regression equation. The two factor model of the CTI and

the three subscale model account for an equal proportion of variance in depression scores (54% and 53%, respectively).

Since the two factor model is more parsimonious and both factors contribute equally in the prediction of BDI scores, it would be preferred over the three subscale solution. However, the self construct alone accounts for a disproportional 46% of the variance. Therefore, this subscale alone could be used as a quick indicator of depression scores. Both the world and the future subscales are minimally useful in adding to the prediction of depression scores.

Psychometric Properties

Psychometric properties of the ASQ. This information is added to the study since it was discovered during the statistical operations that some of the subscales yielded extraordinarily low correlations among the component items. The inter-item correlations of items on a particular subscale were particularly problematic (see Table 15). The six items that comprise each subscale should correlate highly among themselves and correlate less notably with items that help make up another subscale. This increases the validity of a particular subscale and aids in the establishment of valid, relatively independent subscales.

Table 15

Correlation of Items on ASQ Subscales

Correlations of items on internal subscale

	4	10	13	19	22	31
item 4	1.00					
item 10	.07	1.00				
item 13	.29	.07	1.00			
item 19	.12	.04	.03	1.00		
item 22	.27	.08	.22	.18	1.00	
item 31	.06	-.01	.12	.12	.27	1.00

Correlations of items on stable subscale

	5	11	14	20	23	32
item 5	1.00					
item 11	.17	1.00				
item 14	.17	.17	1.00			
item 20	.26	.25	.23	1.00		
item 23	.24	.17	.33	.33	1.00	
item 32	.23	.22	.29	.29	.29	1.00

Correlations of items on global subscale

	6	12	15	21	24	33
item 6	1.00					
item 12	.20	1.00				
item 15	.22	.31	1.00			
item 21	.22	.27	.25	1.00		
item 24	.30	.29	.29	.33	1.00	
item 33	.22	.28	.36	.25	.36	1.00

The correlations of items within a particular subscale are surprisingly low. The internal subscale has no inter-item correlation above .30, the stable subscale only 2 correlations above .30, and global only 5 above .30. None of the correlations in any of the matrices exceeds .40. These correlations are indeed very modest. It would be expected that items that combine to make up the same construct would correlate much higher than is found with these items. Since these inter-item

correlations are so low, the validity of the subscales is highly questionable.

Another problem with the ASQ is the lack of correlation between positive and negative events within the same subscale (see Table 4, p. 26). However, the correlations between positive and negative events of the same subscale are remarkably low. This is another aspect of the ASQ that lends support to its overall lack of validity.

Although the validity of these items was decided by face validity criteria (Peterson & Seligman, 1984), the correlations between individual items and the subscale they are placed on has never been published. It appears that the validity of the internal, stable, and global subscales is seriously in question according to these results. This finding can have serious repercussions, since hundreds of studies have used the ASQ in research designed to assess the relevancy of attributional styles and their relationship to depression. If the ASQ does not offer a valid measure of attributional dimensions then the results of these studies are of questionable worth.

Psychometric properties of the CTI. The correlations among the CTI items and the subscale they are placed on were substantially higher than those of the ASQ (see Table 16). However, the correlations among all items tended to be elevated. Therefore, a second correlational analysis examined whether the items tended to correlate higher with

items from its own subscale or items from other subscales. The results are found in Table 17.

Table 16

Correlation of Items on CTI Subscales

Correlations of items on self subscale

	5	10	13	17	21	25	29	31	33	35
5	1.00									
10	.30	1.00								
13	.63	.40	1.00							
17	.31	.12	.36	1.00						
21	.59	.33	.56	.32	1.00					
25	.41	.21	.45	.44	.43	1.00				
29	.26	.45	.32	.16	.30	.15	1.00			
31	.37	.22	.39	.27	.39	.48	.14	1.00		
33	.52	.29	.48	.40	.69	.56	.29	.44	1.00	
35	.36	.40	.48	.26	.40	.31	.49	.23	.43	1.00

Correlations of items on world subscale

	3	8	12	18	20	23	24	27	30	34
3	1.00									
8	.42	1.00								
12	.34	.30	1.00							
18	.29	.05	.23	1.00						
20	.16	.43	.24	.05	1.00					
23	.28	.18	.29	.37	.36	1.00				
24	.15	.30	.32	.11	.42	.28	1.00			
27	.25	.32	.23	.17	.49	.39	.31	1.00		
30	.32	.33	.27	.27	.41	.57	.28	.43	1.00	
34	.18	.11	.22	.30	.12	.45	.13	.18	.38	1.00

Correlations of items on future subscale

	6	9	11	15	16	19	26	28	32	36
6	1.00									
9	.43	1.00								
11	.52	.53	1.00							
15	.43	.36	.45	1.00						
16	.23	.26	.24	.26	1.00					
19	.37	.39	.46	.51	.24	1.00				
26	.48	.40	.44	.68	.29	.55	1.00			
28	.54	.62	.63	.52	.32	.51	.56	1.00		
32	.41	.39	.45	.57	.24	.64	.64	.59	1.00	
36	.39	.49	.49	.41	.26	.40	.46	.56	.38	1.00

Table 17

Item Correlations of CTI

item #	scale	# corr above .30	# top 9 corr in subscale
5	self	22	4
10	self	11	4
13	self	23	4
17	self	6	5*
21	self	23	3
25	self	21	5
29	self	8	4*
31	self	14	5
33	self	24	0
35	self	16	6
3	world	5	3*
8	world	8	5*
12	world	10	3
18	world	3	2*
20	world	18	4
23	world	20	3
24	world	15	1
27	world	19	3
30	world	17	3
34	world	5	3*
6	future	13	8
9	future	16	7
11	future	20	7
15	future	18	4
16	future	6	1*
19	future	17	5
26	future	22	5
28	future	22	7
32	future	18	6
36	future	19	6

* couldn't report on the number of top nine correlations above .30 that were found with items of same subscale since the total number of correlations between item and all other items was less than nine.

Note: the reason for selecting the top 9 correlations is that there are 9 other items on each subscale besides the item under study.

The most problematic subscale seems to be the world subscale. Four of the items are of questionable utility. For instance, item 18 only correlates .30 or higher with three of the other 29 items, including only two such correlations with other items in its own subscale. Items 3 and 34 are also of questionable worth, each only correlating .30 or higher with three other items in the world subscale and with five items overall. Item 24 correlates with a lot of other items at the .30+ level (with 15 other items), but only correlates with one other item in the world subscale at this level. Finally, eight of the ten items correlate .30 or higher with only three or fewer items in the world subscale.

Therefore, the world subscale could be improved substantially by removing items 3, 18, 24, and 34. However, the entire subscale is plagued by a lack of significant correlations among the world items. This subscale is the only one on the CTI that needs to create new items in order to be a more valid measure of the world construct.

The self scale appears to be a valid subscale, with only one notable flaw. Item 33 does not correlate with any other item on the self scale at the .30 level. Its removal from the subscale would remove the only flaw that can be found in this subscale.

Although the self scale is a strong subscale, the future scale is even better. Once again, it has one item that should be removed. Item 16 only correlates with one other item on the future subscale at the .30 level. All of the other nine items on the subscale correlate .30 or higher with at least four other future items. In fact, six of these items correlate with six or more of the other items at the .30 level.

CHAPTER FIVE

CONCLUSIONS

The first hypothesis stated that the self-world-future constructs of the CTI and the internal-global-stable constructs of the ASQ would collapse into three distinguishable factors: the self/internal construct, the world/global construct, and the future/stable construct. This hypothesis was not substantiated. As predicted, the self construct of the CTI correlated higher with the internal construct than any other ASQ subscale and the world construct of the CTI correlated highest with the global construct. However, these correlations are not of sufficient magnitude to believe that the subscales are essentially measuring the same construct (r .13 to .28). The future subscale correlated lower with the stable subscale than with any other subscale and obviously are unrelated subscales.

This hypothesis concerning subscale integration into three common factors also was not substantiated in the initial factor analysis. Although both the CTI and ASQ were reduced from three subscales to two factors, there was no integration of ASQ and CTI items on any factor. One of the possible reasons that this hypothesis was not confirmed either by the correlational statistics or the factor solution is the overall lack of relationship between the CTI and ASQ.

A second purpose for this research was to reduce the six subscales down to the most parsimonious set of factors without losing any of ability to predict depression scores. Both measures can be reduced to two factors without losing any ability to predict depression scores. The ASQ, according to the present study, can most parsimoniously be represented with one factor that combines the global and stable items and another that contains solely the internal items. It appears that attributions of negative events are divided between internal causes (internality) and external causes (globality). The stable subscale is insignificant in adding to the prediction of depression scores.

The two factors from the CTI are labeled security/insecurity and presence/absence of stressors. Security/insecurity seems to be more of a subjective sense of well-being or lack of well-being, whereas presence/absence of stressors has specific problems that the person can identify or the absence of these obstacles. This varies substantially from Beck's theory of the cognitive triad. However, the self subscale alone almost accounts for variance as any combination of subscales or factors. This supports a previous finding that the self construct is the crucial aspect of the cognitive triad and the other two subscales are subsidiary (Giles & Shaw, 1987).

The third purpose of this study was to determine if the factors could predict depression scores as well as, or better than, the original subscales. In the case of the ASQ, both the two-factor solution or the three subscales showed equal ability to predict depression scores. However, they only accounted for a mere 8 percent of variance in depression scores. This relationship is so minimal that the relationship between causal attributions as measured by the ASQ and depression as measured by the BDI is seriously called into question. According to these results, there is virtually no relationship between the ASQ and the BDI.

The CTI is much better in predicting depression scores. Both the two-factor solution and the three subscales account for 54% and 53% of the variance in depression scores, respectively. This strong relationship supports Beck's theory that the cognitive triad indeed is related to depression. However, the triad can be reduced to two factors without losing any predictive ability. Even more intriguing is the fact that the self subscale by itself predicts depression scores about as well as any other possible combination of subscales or factors. This conforms with a previous studies that have found that the self construct underlies both the world and future constructs and is the most important of the three constructs in the triad (Hoh et al., 1987; Willner, 1984).

A major concern that arose during this experiment was the lack of inter-item correlation on the three ASQ constructs. This is of tremendous importance since almost all studies of attributions use this measure to quantify the dimensions. Although Seligman and others (1979) claim that some of the psychometric properties of the ASQ are substantially improved by increasing the number of items, this increase will do nothing to improve the lack of correlation among individual items from the same subscale.

Although the current study was unable to support the hypothesis that Beck's cognitive triad and Seligman's attributional triad are redundant, the conceptual overlap between the theories still suggests that this question be further explored. However, this research will be severely limited until an adequate measure of Seligman's attributional styles is developed. Future research should further explore the validity and reliability problems with the ASQ, as well as consider the development of a new measure that has adequate reliability and validity properties.

Limitations of this Study

Although the conceptual basis for this study was sound, the investigation of the hypotheses was substantially limited by the psychometric imperfections of the instruments used. As pointed out earlier (see "section on Psychometric properties of the ASQ", p. 49),

the constructs of the ASQ were of questionable validity due to low correlations among items comprising a particular construct. This inability to validly measure the crucial constructs of the ASQ was an obvious limitation, since the utility of any result involving the ASQ had to be questioned.

A second precaution involves the population being used. All subjects were college students in Utah. Although a large sample was collected (n = 318), the results are not necessarily applicable to non-students or to clinically depressed patients. Therefore, the same precaution should be taken about generalizing from college students to a non-student and/or clinical population since depression in college students has been shown to be substantively different than depression in a non-student population (Vredenburg, O'Brien, & Krames, 1988; Gotlib, 1984).

Recommendations for Future Research

The examination of the redundancy among Beck's and Seligman's triads remains a viable research topic. However, this study cannot be effectively carried out until a more precise measure of Seligman's constructs is developed, or the current ASQ is modified in order to eliminate the instrument's psychometric flaws. Several investigators have already begun to study the flaws in the ASQ and are attempting to create a more reliable

instrument (Robbins, 1988). The resolution of this issue is crucial, since hundreds of studies have used the ASQ to determine the relationship of attributional style to depression and other disorders (Sweeney et al., 1986). Once a valid measure of Seligman's triad is developed, this study can be replicated.

Other studies can examine whether the underlying factors of Beck's self-world-future paradigm (presence/absence of stressors and feelings of security/insecurity) are more useful in understanding the etiology, course, and differentiation of depression than the triad itself. Constructs from other cognitive theories can also be analyzed in a similar fashion until the common factors underlying all theories of depressive cognition can be delineated.

Clinical Applications

Beck's cognitive triad suggests that people tend to have a negative bias in processing and coding their experience. These biases invade the realms of the self, the surrounding environment, and future situational projections. This model, although intuitively appealing, has little clinical utility. For instance, no prognostic, diagnostic, or etiological information is gained from the scores on the CTI subscales. Although the subscales correlate with depression scores as measured by the BDI,

they offer little additional insight to the clinician beyond the information provided by the BDI.

However, the two-factor solution (presence/absence of stressors and feelings of stability/instability) offer the clinician important information about the depressive client above and beyond that provided by the BDI. Specifically, these factors may be important in identifying two different forms of depression: (a) reactive depression and (b) neurotic depression. Reactive depression involves those clients who have had a serious life crisis (or an accumulation of smaller stressors over time) and have developed symptoms of depression due to the grieving or exhaustion caused by these unfortunate life events. Neurotic depression, on the other hand, typifies the type of depression that Beck describes with his theoretical analysis of negative cognitions. These clients become depressed due to an irrational and distorted way of viewing their world.

Therefore, the two-factor solution may be useful in categorizing two different types of depression, one involving identifiable stressors and the other involving distorted and irrational thinking. Although depressive persons cannot always be dichotomized as either reactive or neurotic depressives, this model at least can provide insight into different causes of depressive symptomology. Future studies may also magnify the differences between

these two types of depression by studying the differential course, prognosis, and treatments of neurotic versus reactive depression.

Finally, the continued discovery of underlying dimensions accounting for the differences among the various cognitive theories will advance the understanding and treatment of depression. The numerous cognitive theories of depression that are currently accepted cause the scientific understanding of depressive cognitions to be fragmented. Clinicians seem compelled to choose a particular theoretical school and work under the assumptions of that didactic model. If, however, attention swayed from particular schools of thought to the dimensions underlying all theories, understanding and treatment of depression would be substantially improved and conventionalized.

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APPENDICES

Appendix A

Consent Form, IRB Proposal, & IRB Approval

CONSENT FORM

ATTITUDE AND MOOD STUDY

The purpose of this study is to examine the variation of different peoples attitudes and moods. Interested students can earn extra-credit for participation in this study (the value of such credit has been determined by each course instructor; check with yours for specific details). Participation requires the completion of several different questionnaires. All participants will meet at a designated time and location to fill out the questionnaires. It is estimated that it will take 45 minutes - 1 hour to complete the questionnaires.

This experiment does **NOT** involve deception, nor risk of any kind. However, the questionnaires require self-disclosure of personal attitudes. Some people may find it disturbing to disclose information about their attitudes and feelings.

Participation is voluntary and students may discontinue at any time during the experiment. However, extra-credit can only be given to those students who complete their participation in the study.

All information is confidential and will be seen only by a research team and the principal investigator. Student names or other personal identifiers (e.g., social security numbers) are NOT used in this study. A separate list of names will be recorded only to notify class instructors of student participation for extra-credit.

This research project has been approved by the Institutional Review Board at Utah State University. Any questions or concerns should be directed to Dr. J. R. Skidmore, Assistant Professor of Psychology and Principle Investigator (801-750-1451).

If you wish to participate in this research study, sign below.

I HEREBY AGREE TO VOLUNTARILY PARTICIPATE
IN THE RESEARCH PROJECT DESCRIBED ABOVE,
AND UNDER THE CONDITIONS DESCRIBED ABOVE.

Print Name Here	Student Signature	Date

Statement of the PI to the IRB for Proposed Research Involving Human Subjects

Proposal Title COGNITIVE AND ATTRIBUTIONAL CORRELATES OF DEPRESSION

Principal Investigator* Jay R. Skidmore, Ph.D. Dept. Psy Ext. 1451

Student Researcher Kent W. Anderson, B.S. Dept. Psy Ext. 3401

A. Human subjects will participate in this research and be asked to do the following: In one 45-minute session, subjects will fill out questionnaires.

B. The potential benefits to be gained from the proposed research are:

The research will contribute to the knowledge of cognitions related to depression, as well as integrate constructs from two existing theories of depression.

C. The risk(s) to the rights and welfare of human subjects involved are:

None. The subjects are simply asked to fill out questionnaires. No risk or deception involved.

D. The following safeguards/measures to mitigate/minimize the identified risks will be taken: Students are informed that answering the items may be construed as difficult due to the personal nature of self-report inventories.

E. The informed consent procedures for subjects will be as follows: (Explain procedures to be followed and attach an example of the informed consent instrument) This is one of several opportunities for students to earn extra-credit in their classes. APA guidelines of consent are followed.

F. The following measures regarding confidentiality of subjects will be taken: Subjects names (or other personal identifiers) will NOT be recorded with any research data. Rather, names are listed only to record extra-credit participants.

G. Other: (If, in your opinion no, or minimal, risk to subjects exists, please explain in this section) At most, questionnaires may be perceived as difficult or challenging. Self-disclosure is confidential.

Principal Investigator Signature* Student Researcher Signature

*A student researcher should name his/her advisor or chairman as the principal investigator. Both are required to sign this form.

Appendix D HS Form 82-2

UTAH STATE UNIVERSITY · LOGAN, UTAH 84322-1450

OFFICE OF THE VICE PRESIDENT
FOR RESEARCH
Telephone (801) 750-1180

MEMORANDUM

TO: Dr. Jay R. Skidmore and Kent W. Anderson

FROM: Sydney Peterson

DATE: May 21, 1990

SUBJECT: Proposal Entitled, "Cognitive and Attributional Correlates of Depression"

The above referenced proposal has been reviewed and approved by the Institutional Review Board.

Appendix B

Permission Form & Attributional Style Questionnaire

UNIVERSITY of PENNSYLVANIA

Psychology Department
Professor Martin E. P. Seligman
3815 Walnut Street
Philadelphia, PA 19104-6196

PERMISSION TO USE THE ATTRIBUTIONAL STYLE QUESTIONNAIRE

The Attributional Style Questionnaire (ASQ) is copyrighted material and may only be used with the written permission of the author, Dr. Martin E. P. Seligman. This letter grants you permission to use the ASQ, so please keep it on file. The questionnaire may be used only for academic research or by a clinical psychologist for the diagnosis or treatment of patients. It may not be used for profit or for any corporate-related activities.

Thank you for your understanding and consideration in this matter.

Sincerely,

Martin E. P. Seligman, Ph.D.
Professor of Psychology
Director of Clinical Training

MEPS:tbs

Encl.

ATTRIBUTIONAL STYLE QUESTIONNAIRE

DIRECTIONS

1) Read each situation and vividly imagine it happening to you.
2) Decide what you believe would be the one major cause of the situation if it happened to you.
3) Write this cause in the blank provided.
4) Answer three questions about the cause by circling one number per question. Do not circle the words.
5) Go on to the next situation.

SITUATIONS

YOU MEET A FRIEND WHO COMPLIMENTS YOU ON YOUR APPEARANCE.

1) Write down the one major cause: _____

_____

2) Is the cause of your friend's compliment due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

3) In the future when you are with your friend, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

4) Is the cause something that just affects interacting with friends, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU HAVE BEEN LOOKING FOR A JOB UNSUCCESSFULLY FOR SOME TIME.

5) Write down the one major cause: _____

_____

6) Is the cause of your unsuccessful job search due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

7) In the future when you look for a job, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

8) Is the cause something that just influences looking for a job, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU BECOME VERY RICH.

9) Write down the one major cause: _____

_____

10) Is the cause of your becoming rich due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

11) In your financial future, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

12) Is the cause something that just affects obtaining money, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

A FRIEND COMES TO YOU WITH A PROBLEM AND YOU DON'T TRY TO HELP HIM/~~HER~~.

13) Write down the one major cause: _____

_____

14) Is the cause of your not helping your friend due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

15) In the future when a friend comes to you with a problem, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

16) Is the cause something that just affects what happens when a friend comes to you with a problem, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU GIVE AN IMPORTANT TALK IN FRONT OF A GROUP AND THE AUDIENCE REACTS NEGATIVELY.

17) Write down the <u>one</u> major cause: _____

_____

18) Is the cause of the audience's negative reaction due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

19) In the future when you give talks, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

20) Is the cause something that just influences giving talks, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situtations in my life

YOU DO A PROJECT WHICH IS HIGHLY PRAISED.

21) Write down the <u>one</u> major cause: _____

_____

22) Is the cause of your being praised due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

23) In the future when you do a project, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

24) Is the cause something that just affects doing projects, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU MEET A FRIEND WHO ACTS HOSTILELY TOWARDS YOU.

25) Write down the <u>one</u> major cause: _____

_____

26) Is the cause of your friend acting hostile due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

27) In the future when interacting with friends, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

28) Is the cause something that just influences interacting with friends, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU CAN'T GET ALL THE WORK DONE THAT OTHERS EXPECT OF YOU.

29) Write down the <u>one</u> major cause: _____

_____

30) Is the cause of your not getting the work done due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

31) In the future when doing work that others expect, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

32) Is the cause something that just affects doing work that others expect of you, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOUR SPOUSE (BOYFRIEND/GIRLFRIEND) HAS BEEN TREATING YOU MORE LOVINGLY.

33) Write down the <u>one</u> major cause: _____

_____

34) Is the cause of your spouse (boyfriend/girlfriend) treating you more lovingly due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

35) In future interactions with your spouse (boyfriend/girlfriend), will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

36) Is the cause something that just affects how your spouse (boyfriend/girlfriend) treats you, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU APPLY FOR A POSITION THAT YOU WANT VERY BADLY (E.G., IMPORTANT JOB, GRADUATE SCHOOL ADMISSION, ETC.) AND YOU GET IT.

37) Write down the <u>one</u> major cause: _____

_____

38) Is the cause of your getting the position due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

39) In the future when you apply for a position, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

40) Is the cause something that just influences applying for a position, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU GO OUT ON A DATE AND IT GOES BADLY.

41) Write down the one major cause: _____

_____

42) Is the cause of the date going badly due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

43) In the future when you are dating, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

44) Is the cause something that just influences dating, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

YOU GET A RAISE.

45) Write down the one major cause: _____

_____

46) Is the cause of your getting a raise due to something about you or something about other people or circumstances?

Totally due to other people or circumstances 1 2 3 4 5 6 7 Totally due to me

47) In the future on your job, will this cause again be present?

Will never again be present 1 2 3 4 5 6 7 Will always be present

48) Is this cause something that just affects getting a raise, or does it also influence other areas of your life?

Influences just this particular situation 1 2 3 4 5 6 7 Influences all situations in my life

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Appendix C

Permission Form &
Cognitive Triad Inventory

Kent Anderson
685 Darwin Avenue, #3
Logan, Utah 84321

Dear Mr. Anderson:

Please feel free to use the Cognitive Triad Inventory as much as you wish--for research or clinical purposes. While I hold a copyright on the inventory, the purpose of the copyright is merely to preserve the right to publish and distribute it. You may use it as much as you like for your own purposes.

Sincerely,

Ed Beckham

Ed Beckham, Ph.D.

CTI

This Inventory lists different ideas that people sometimes have.

For each of these ideas, show how much you agree with it by circling the answer which best describes your opinion. Be sure to choose only one answer for each idea. Answer the items for what you are thinking Right Now.

Example:

TA = TOTALLY AGREE	SD = SLIGHTLY DISAGREE
MA = MOSTLY AGREE	MD = MOSTLY DISAGREE
SA = SLIGHTLY AGREE	TD = TOTALLY DISAGREE
N = NEUTRAL	

---

1. Life has its ups and downs. TA MA SA N SD MD TD

In the example above, the circle at "SA" indicates that this statement agrees somewhat with the ideas held by the person completing this inventory.

NOW TURN THE PAGE AND BEGIN

c 1986
E.E. Beckham, W.R. Leber, J.T. Watkins, J. Boyer, & J. Cook

Answering Codes: Circle the answer which best describes your opinion. Choose only one answer for each idea. Answer the items for what you are thinking RIGHT NOW.

TA = TOTALLY AGREE
MA = MOSTLY AGREE
SA = SLIGHTLY AGREE
N = NEUTRAL
SD = SLIGHTLY DISAGREE
MD = MOSTLY DISAGREE
TD = TOTALLY DISAGREE

ANSWER THE ITEMS FOR WHAT YOU ARE THINKING RIGHT NOW.

1.	I have many talents and skills.	TA	MA	SA	N	SD	MD	TD
2.	My job (housework, schoolwork, daily duties) is unpleasant.	TA	MA	SA	N	SD	MD	TD
3.	Most people are friendly and helpful.	TA	MA	SA	N	SD	MD	TD
4.	Nothing is likely to work out for me.	TA	MA	SA	N	SD	MD	TD
5.	I am a failure.	TA	MA	SA	N	SD	MD	TD
6.	I like to think about the good things that lie ahead for me.	TA	MA	SA	N	SD	MD	TD
7.	I do my work (job, schoolwork housework) adequately.	TA	MA	SA	N	SD	MD	TD
8.	The people I know help me when I need it.	TA	MA	SA	N	SD	MD	TD
9.	I expect that things will be going very well for me a few years from now.	TA	MA	SA	N	SD	MD	TD
10.	I have messed up almost all the important relationships I have ever had.	TA	MA	SA	N	SD	MD	TD
11.	The future holds a lot of excitement for me.	TA	MA	SA	N	SD	MD	TD

ANSWERING CODES

TA = TOTALLY AGREE
MA = MOSTLY AGREE
SA = SLIGHTLY AGREE
N = NEUTRAL
SD = SLIGHTLY DISAGREE
MD = MOSTLY DISAGREE
TD = TOTALLY DISAGREE

ANSWER THE ITEMS FOR WHAT YOU ARE THINKING RIGHT NOW.

12. My daily activities are fun and rewarding.	TA	MA	SA	N	SD	MD	TD
13. I can't do anything right.	TA	MA	SA	N	SD	MD	TD
14. People like me.	TA	MA	SA	N	SD	MD	TD
15. There is nothing left in my life to look forward to.	TA	MA	SA	N	SD	MD	TD
16. My current problems or concerns will always be there in one way or another.	TA	MA	SA	N	SD	MD	TD
17. I am as adequate as other people I know.	TA	MA	SA	N	SD	MD	TD
18. The world is a very hostile place.	TA	MA	SA	N	SD	MD	TD
19. There is no reason for me to be hopeful about my future.	TA	MA	SA	N	SD	MD	TD
20. The important people in my life are helpful and supportive.	TA	MA	SA	N	SD	MD	TD
21. I hate myself.	TA	MA	SA	N	SD	MD	TD
22. I will overcome my problems.	TA	MA	SA	N	SD	MD	TD
23. Bad things happen to me a lot.	TA	MA	SA	N	SD	MD	TD

ANSWERING CODES:

TA = TOTALLY AGREE
MA = MOSTLY AGREE
SA = SLIGHTLY AGREE
N = NEUTRAL
SD = SLIGHTLY DISAGREE
MD = MOSTLY DISAGREE
TD = TOTALLY DISAGREE

ANSWER THE ITEMS FOR WHAT YOUR ARE THINKING RIGHT NOW.

24. I have a spouse or friend who is warm and supportive.	TA	MA	SA	N	SD	MD	TD
25. I can do a lot of things well.	TA	MA	SA	N	SD	MD	TD
26. My future is simply too awful to think about.	TA	MA	SA	N	SD	MD	TD
27. My family doesn't care what happens to me.	TA	MA	SA	N	SD	MD	TD
28. Things will work out well for me in the future.	TA	MA	SA	N	SD	MD	TD
29. I am guilty of a great many things.	TA	MA	SA	N	SD	MD	TD
30. No matter what I do, others make it difficult for me to get what I need.	TA	MA	SA	N	SD	MD	TD
31. I am a worthwhile human being.	TA	MA	SA	N	SD	MD	TD
32. There is nothing to look forward to in the years ahead.	TA	MA	SA	N	SD	MD	TD
33. I like myself.	TA	MA	SA	N	SD	MD	TD
34. I am faced with many difficulties.	TA	MA	SA	N	SD	MD	TD
35. I have serious flaws in my character.	TA	MA	SA	N	SD	MD	TD
36. I expect to be content and satisfied as the years go by.	TA	MA	SA	N	SD	MD	TD

Appendix D

Permission Form & Beck Depression Inventory

UNIVERSITY of PENNSYLVANIA
PHILADELPHIA 19104-3246

Center for Cognitive Therapy

Please reply to:
Room 602
133 South 36th Street
Philadelphia, PA 19104-3246
(215) 898-4100

Kent W. Anderson, B.S.
685 Darwin Ave., #3
Logan, Utah 84321

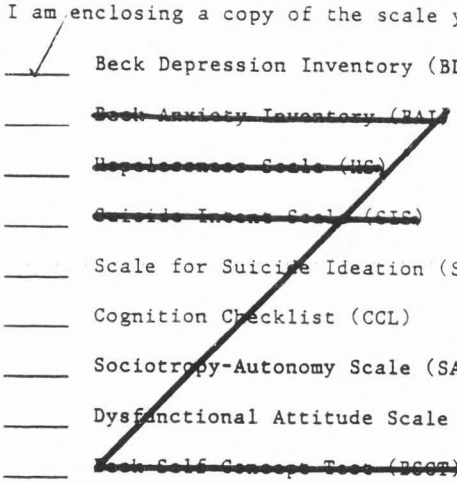
Dear

On behalf of Aaron T. Beck, M.D., I am responding to your recent inquiry regarding our research scales.

You have Dr. Beck's permission to use and reproduce the scale(s) checked below only for the designated research project that you described in your letter. There is no charge for this permission.

However, in exchange for this permission, please provide Dr. Beck with a complimentary copy of any reports, preprints, or publications you prepare in which our materials are used. These will be catalogued in our central library to serve as a resource for other researchers and clinicians.

I am enclosing a copy of the scale you requested.



- ✓ Beck Depression Inventory (BDI)
- ~~Beck Anxiety Inventory (BAI)~~
- ~~Hopelessness Scale (HS)~~
- ~~Suicide Intent Scale (SIS)~~
- Scale for Suicide Ideation (SSI)
- Cognition Checklist (CCL)
- Sociotropy-Autonomy Scale (SAS)
- Dysfunctional Attitude Scale (DAS)
- ~~Beck Self-Concept Test (BSCT)~~

If you have any further questions, feel free to contact me.

Sincerely,

Karen A. Madden
Research Materials Coordinator
for Aaron T. Beck, M.D.
Director, Center for Cognitive Therapy

BECK INVENTORY

Name_____ Date_____

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1 0 I do not feel sad.
1 I feel sad.
2 I am sad all the time and I can't snap out of it.
3 I am so sad or unhappy that I can't stand it.

2 0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve.

3 0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life, all I can see is a lot of failures.
3 I feel I am a complete failure as a person.

4 0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things the way I used to.
2 I don't get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything.

5 0 I don't feel particularly guilty.
1 I feel guilty a good part of the time.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6 0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7 0 I don't feel disappointed in myself.
1 I am disappointed in myself.
2 I am disgusted with myself.
3 I hate myself.

8 0 I don't feel I am any worse than anybody else.
1 I am critical of myself for my weaknesses or mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.

9 0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10 0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time now.
3 I used to be able to cry, but now I can't cry even though I want to.

11 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by the things that used to irritate me.

12 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.

13 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all anymore.

14 0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.

15 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.

16 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19 0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds. I am purposely trying to lose weig
2 I have lost more than 10 pounds. by eating less. Yes____ No____
3 I have lost more than 15 pounds.

20 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think about anything else.

21 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

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