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What, if anything, are adult children of alcoholics?

Roxanna Alcaraz

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WHAT, IF ANYTHING, ARE
ADULT CHILDREN OF ALCOHOLICS?

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Psychology

by
Roxanna Alcaraz
June 1991
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A Thesis
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Approved by:
Dr. Elizabeth Klönoff, Chair, Psychology

Dr. Hope Landrine

Dr. Matt L. Riggs

Dr. Jan Fritz
ABSTRACT

The popular clinical concept of adult children of alcoholics (ACAs) was empirically investigated by assessing the extent to which ACAs and non-ACA's differed in personality characteristics. One-hundred twenty college students, ranging in age from 21-59 years, completed a questionnaire consisting of demographic information, a self-identification as ACA or non-ACA question, the Children of Alcoholics Screening Test (CAST), the Spielberger State-Trait Anxiety Inventory (STAI), the Beck Depression Inventory (BDI), and the Cornell Medical Index (CMI). The STAI, BDI, and CMI were used to assess the differences in anxiety, depression, and somatization that have been theorized to differentiate ACA's and non-ACAs. Subjects were categorized as ACA or non-ACA based on their CAST scores and on the Self-identification measure. Results indicated that ACA and non-ACA groups, whether CAST-identified or Self-identified, did not differ on the set of clinical measures. In addition, CAST scores were related to self-labeling as ACA rather than to anxiety, depression or somatization. The limitations of previous research and the implications of self-labeling are discussed. Suggestions for future research questions and improved methodology are offered.
ACKNOWLEDGEMENTS

The fact that this thesis and the completion of my Master's Degree is at last a reality is attributable to many individuals who have given unselfishly to me of their time, dedication, support, and love.

To Dr. Hope Landrine, who entered my life when I was a senior at Cal State, struggling to find some direction in my academic endeavors as well as in my personal life. Her brilliance and wisdom inspired me to look to the future and to set both academic and personal goals. Without the faith, trust, and confidence she had in me, I would not have had the strength or courage to apply to the graduate program. Dr. Landrine's knowledge of and creativity in research design and statistics made an incredible contribution to this project. She spent many long hours reviewing and editing rough drafts, providing me with the feedback I needed to produce a final cohesive manuscript. Her continuous support, guidance, and patience were indispensable assets to my surviving the trials and tribulations of graduate school. Hope - my teacher, my mentor, my friend - thank you thank you!

To Dr. Elizabeth Klonoff, who believed in me and counseled me through some difficult times. Her intelligence, insight and advice were motivating factors that contributed to my completing this project. She willingly stepped in and gave more of her time and talents iv
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To Dr. Matt Riggs, whose graduate lectures and labs in research design and statistical problem analysis provided me with the solid foundation I needed to conduct a project such as this. His statistical knowledge and expertise made a tremendous contribution to this work. Dr. Riggs was also always available. No matter how busy he was, whenever I decided to just drop by his office with a question, he would take the time to help me out. Matt - thank you for your time and efforts in working with me on this thesis.

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I thank you deeply for being a part of my life.

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Last, but by no means least, to my children, Anna and David Alcaraz. Their young lives have been touched by this experience perhaps more than my own. They have sacrificed more than their share in order for me to finish my education. They have experienced a drastically changed family atmosphere where there has been little or no family activities or vacations, reduced finances, very few home cooked meals, and many times, a physically, mentally, and emotionally unavailable mother. They have been forced to learn many aspects of being independent probably a lot earlier than should be expected. However, through it all, they have been extremely understanding, patient, and sensitive to what obtaining this degree has meant to me. Anna and David - thank you for helping me reach my goals. Now we can have some fun!
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INTRODUCTION

Recently, clinicians have recognized and begun to treat a population of clients labeled "adult children of alcoholics", or ACAs. While there are some who disagree, the general consensus (at least within the clinical realm) is that ACAs are a distinguishable group of adults who have a specific set of psychopathological traits in common as a result of having been raised by one or two alcoholic parents. Various clinical observational and experimental studies of ACAs have drawn conclusions about the nature of these psychopathological traits.

Clinical Studies of ACAs

Based on clinical observations of ACAs who sought individual psychotherapy (it was not clear how these ACAs were identified), Miller and Tuchfeld (1986) suggested that ACAs have significant problems with self-esteem; have difficulty distinguishing fact from fantasy; have learned to deny issues and feelings; overreact to changing life situations; have developed coping skills and defense mechanisms that have negative consequences; have an obsessive need to control all situations; are impulsive; and have trouble with intimacy. Similarly, Cermak and Brown's (1982) observations of self-identified ACAs who sought group therapy indicated that ACAs are characterized by five psychopathological traits: 1) need to control, 2) denial and repressed feelings, 3) lack of self-trust and trust of
others, 4) hyper-responsibility or irresponsibility, and 5) expression of personal needs leads to feelings of guilt, vulnerability, and dependence.

Cermak (1985), again using clinical observations of self-identified ACAs who sought therapy, expanded the list of ACA psychopathological traits from 5 to 19. These include fear of losing control; fear of feelings; fear of conflict; an overdeveloped sense of responsibility; feelings of guilt; an inability to relax and have fun; harsh self-criticism; denial; difficulties with intimacy; living life from the viewpoint of a victim; compulsive behavior; the tendency to be more comfortable with chaos than with security; the tendency to confuse love and pity; fear of abandonment; the tendency to assume a "black and white" perspective under pressure; a tendency toward physical complaints; suffering from a "backlog" of delayed grief; a tendency to react rather than to act; and an ability to survive. From these observations Cermack concluded that ACAs have characteristics similar to those of people suffering from Post Traumatic Stress Disorder (PTSD). Cermak suggested that growing up in an alcoholic home leaves people suffering from a form of PTSD.

Likewise, in a therapeutic setting with ACAs who sought therapy, Woititz (1984) observed approximately 500 ACAs (it was not clear how ACAs were identified) and identified 13 ACA traits: ACAs "guess" at what normal is; have difficulty
following a project through from beginning to end; lie when it is just as easy to tell the truth; judge themselves without mercy; have difficulty having fun; take themselves very seriously; have difficulty with intimacy; overreact to changes beyond their control; constantly seek approval; feel different from others; are hyper-responsible or extremely irresponsible; are extremely loyal even in the face of evidence that loyalty is undeserved; and impulsively act without considering the consequences. According to Woititz, the psychopathological traits of ACAs are the consequence of the inconsistency, incongruency, and double messages hypothesized to characterize alcoholic parenting styles. As a result of such parenting, ACAs are said to lack an accurate data base from which to make personal decisions.

Stark (1982) interviewed several clinicians who treat ACAs (it was not clear how ACAs were identified). Clinicians described ACAs as overachievers who need to control; who see life in black and white; who feel comfortable with chaos; who have extreme feelings of guilt; and who exhibit addictive and compulsive behaviors.

A host of additional clinical observational studies and "pop" psychology literature match the above descriptions of the ACA personality, and many have proposed similar descriptions of ACA characteristics (e.g., Balis, 1986; Black, 1981; Cermak & Brown, 1982; Cermak & Rosenfeld, 1987; Corazzini, Williams, & Harris, 1987; Crawford & Phyfer,
In summary, a relatively new theory regarding adult children of alcoholics has been widely accepted by clinicians and by the lay public. The theory asserts that ACAs are a specific personality type who exhibit a set of problematic personality traits as a result of having alcoholic parents, and that these traits differentiate them from non-ACAs. Unfortunately, this theory has been developed primarily in response to clinical observations of psychiatrically disturbed, self-identified ACAs who sought therapy. Studies based on such clinical populations are biased. For example, it is possible that the same problems said to be exhibited by ACA psychotherapy clients may also be found in non-ACA psychotherapy patients, or in any psychotherapy patients, as well as among the general, non-clinical and non-ACA population. Therefore, comparisons of ACAs and non-ACAs are needed to assess the validity of the claims advanced by clinicians.
Comparisons of ACAs and Non-ACAs

Black, Bucky, and Wilder-Padilla (1986) compared 409 ACAs with 179 non-ACAs. All subjects were solicited through advertisements in professional journals on alcoholism. Two separate notices asked for either ACAs or non-ACAs to volunteer to complete a questionnaire. Thus, all subjects had an interest in and knowledge of literature on alcoholism and on ACAs. In addition, categorization as an ACA was determined solely by self-identification as such. All participants completed a questionnaire that included questions on perceptions of family history (97 items), past and present drug use (18 items), problems growing up in an alcoholic family (40 items), communication with significant others (11 items), and physical and sexual abuse (19 items). Results were that self-identified ACAs reported significantly more problems than non ACAs in the following areas: trust, identifying feelings, expressing feelings, dependency, work-relationships, problem-solving, responsibility, intimacy, expressing needs, putting self first, confusion, and depression.

Although this comparison study provides better evidence than studies of clinical populations for the hypothesized differences between ACAs and non-ACAs, it is nonetheless problematic. In this study (like in those based on observations of patients), categorization as an ACA was based on self-labeling as such. Those who labeled
themselves as ACAs might have attributed to themselves the symptoms they knew to be consistent with that label, and the results might then be a function of self-labeling alone. Therefore, studies comparing ACAs and non-ACAs who are categorized as such by an objective measure, such as the Children of Alcoholics Screening Test (CAST, discussed later), are needed to evaluate the theory. Two studies of this type have been conducted.

Wilson (1989) compared 67 Christian ACAs with 62 Christian non-ACAs. The Children of Alcoholics Screening Test (CAST), was used to identify ACAs. Five personality characteristics were measured (distrust, denial of feelings, depression, self-blaming/guilt proneness, and need to control) using the 16 Personality Factor Test (16PF). Wilson found that ACAs scored significantly higher than non-ACAs (p < .001) on measures of trusting, self-blaming, and depression. Because this study identified and compared ACAs and non-ACAs based on CAST scores, it provides a more sound, empirical test of the psychopathology theorized to characterize the ACA group. Unfortunately however, the test used (the 16PF) to compare ACAs and non-ACAs is not a valid measure of psychopathology.

Goglia (1986) compared ACA and non-ACA college students who were categorized as such based on their scores on the CAST. Goglia predicted that ACAs would exhibit higher levels of "parentification", depression, and overcontrolled
hostility, and lower levels of intimacy than non-ACAs. Five inventories were used to test these characteristics: The Parentification Questionnaire, the MMPI Depression Scale, the MMPI Overcontrolled Hostility Scale, the Intimacy Development Inventory, and the MMPI MacAndrews Alcoholism Scale. Goglia found significant differences only on "parentification", and this only for ACA women who scored higher than non-ACA women. No other ACA versus non-ACA differences were found.

The only other study regarding ACAs and non-ACAs in the literature is that of Logue, Sher, and Frensch (1990). These researchers hypothesized that clinical descriptions of ACAs are the result of a "Barnum Effect". That is, the ACA description applies to and characterizes people in general, but ACAs are more likely to view such Barnum descriptions as applicable to themselves. To test this hypothesis, Logue et al compared 120 ACAs with 120 non-ACAs, who were categorized as such on the basis of their scores on an adaptation of the Short Michigan Alcohol Screening Test (SMAST). Subjects were given a questionnaire consisting of several bogus, unidentified personality inventories. They were then given a bogus personality profile that had been selected at random, and asked how accurately the profile described self, people in general, and adult children of alcoholics. Seventy percent of all subjects rated the profile as describing self "very well". In addition, ACAs had a
significantly high rate of acceptance of the profiles for other ACAs (effect size .93).

Problems in the Research on the Concept of ACA

Clearly, there are several difficulties in the research on ACAs. Although the clinical and "pop" psychology literatures concur on the existence of an ACA personality, the studies to date have not demonstrated it. This is because many of the studies lacked a control group of non-ACAs. In addition the majority of the studies are biased by the use of clinical psychiatric populations as subjects.

Most importantly, all but two studies are biased by the use of self-identification or self-labeling as an ACA as the means for categorizing subjects. Self-identified ACAs have prior knowledge of the ACA "profile", and may tend to over-report symptoms. Furthermore, studies that have compared non-clinical samples of ACAs and non-ACAs identified by the CAST test (rather than self-identified), either used invalid measures of psychopathology (Wilson, 1989), or used valid measures and found no differences between ACA's and non-ACAs (Goglia, 1986).

In addition, most studies used terms to describe ACAs (e.g., "guess at what normal is", "take themselves very seriously", and "parentification") that are vague and ambiguous, and are therefore difficult to measure. Finally, all studies provide long lists of the behaviors and traits said to characterize ACAs, and these lists can be reduced to
depressive symptoms, anxiety related symptoms, and somatic complaints. Yet, even the best of the comparison studies have not used valid clinical measures of depression, anxiety, and somatic complaints.

Thus, the purpose of this study was to test the theoretical concept of ACA personality by assessing the extent to which there are psychopathological characteristics that distinguish adult children of alcoholics from non-ACAs. In this study, self-labeling as an ACA was controlled and evaluated, and contrasted with CAST based categorization as an ACA; a non-clinical sample was employed; and, valid measures of depression, anxiety and somatic complaints were used.
METHOD

Subjects

One-hundred twenty college students volunteered to participate in this study. The sample consisted of 21 men and 99 women who ranged in age from 21 to 59 years. The mean age was 30.5 years with a standard deviation of 9.76 years. Eighty-seven subjects were White, 8 were Black, 15 were Hispanic, 2 were Asian, and 7 were various other minorities. One-hundred one of 120 participants said that their socio-economic status was middle class.

Materials

A questionnaire consisting of four standard psychological instruments, one question on self-identification as an ACA, and demographic questions was used. The questionnaire contained the following:

1. The Children of Alcoholics Screening Test (CAST) (Jones, 1983). The CAST (Appendix A) is a 30-item inventory that measures attitudes, feelings, perceptions, and experiences concerning parental drinking behavior. Each item is answered "yes" or "no". The test score is the total number of "yes" responses. Jones (1983) reported a Spearman-Brown split-half reliability coefficient of .98 and a validity coefficient of .78 when CAST scores of clinically diagnosed children of alcoholics were correlated with a control group. Typically, a cutoff score of six or more is
used to identify children of alcoholics. This test was used to objectively categorize subjects as ACAs and non-ACAs (CAST ACA).

2. The Spielberger State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch, and Lushene, 1970). The STAI (Appendix B) is a test containing 40 descriptive statements. Respondents select one of four answer options, ranging from "not at all" to "very much so", that best fit the way they currently feel on the first 20 items (state anxiety), and the way they generally feel on the second 20 items (trait anxiety). Test-retest reliability for the STAI over a 20-day interval is .27 and validity when correlated with the IPAT is .75 (Spielberger et al., 1970). This inventory was used to measure state (temporary) anxiety and trait (chronic) anxiety.

3. The Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, and Erbaugh, 1961). The BDI (Appendix C) contains 21 items. Each item is a set of 5 statements. Respondents mark the statement or statements within each set that best describes how they feel. Beck et al. (1961) computed split-half reliability coefficients ranging from .86 to .93. Validity coefficients of .65 and .67 were found when scores on the BDI were correlated with clinical judgements of depression. The BDI was used to assess depression.

4. The Cornell Medical Index (CMI) (Broadman,
Gadmann, and Wolff, 1956). The CMI (Appendix D) consists of 189 health related questions (Section S is omitted for this study). Questions are answered "yes" or "no". The CMI total score was used to measure somatization and somatic complaints.

Procedure

Participants in the study were recruited from California State University, San Bernardino. Each subject was given a questionnaire packet and instructed to complete all tests in the packet at one time. Subjects signed an informed consent form and were advised that they could withdraw from the study at any time. They were assured that all information would be confidential and were thoroughly debriefed.

Subjects were defined as ACA if they had a score of six or higher on the CAST, and as non-ACA if their CAST score was less than six. On the basis of CAST scores there were 48 ACAs and 72 non-ACAs. Subjects also identified themselves as ACA or non-ACA by either a "yes" or "no" response to the question, "Do you or have you ever thought of yourself as an adult child of an Alcoholic (ACA)"?

Thirty-one subjects labeled themselves as ACAs and 89 labeled themselves as non-ACAs. Two independent variables were used, CAST categorization (as ACA or non-ACA) and self-categorization (as ACA or non-ACA). Thus, there were four groups:
1. **CAST ACA/Self ACA**: This group consisted of 30 subjects who scored as ACAs on the CAST and also labeled themselves as ACAs.

2. **CAST ACA/Self non-ACA**: This group consisted of 18 subjects who scored as ACAs on the CAST, but did not label themselves as ACAs.

3. **CAST non-ACA/Self ACA**: This group consisted of one subject who scored as a non-ACA on the CAST, but labeled himself as an ACA.

4. **CAST non-ACA/Self non-ACA**: This group consisted of 71 subjects who scored as non-ACA on the CAST and also labeled themselves as non-ACA.

Four dependent variables were defined as follows:

1. State anxiety as measured by the STAI
2. Trait anxiety as measured by the STAI
3. Depression as measured by the BDI
4. Somatization as measured by the CMI

Because the theory of the ACA psychopathological personality argues that ACAs are distinguished from non-ACAs by the above four traits (by a "profile" rather than by a single trait), statistical analyses sought to examine if ACAs and non-ACAs differed on all four traits simultaneously. A two-way multivariate analysis of variance (MANOVA) was used to (1) determine the extent to which CAST (objectively identified) ACAs and non-ACAs differed on the set of dependent variables; (2) the extent to which Self-
identified or self-labeled ACAs and non-ACAs differed on the set of dependent variables; and (3) to examine the interaction between CAST- and Self-identification on the set of dependent variables. The MANOVA was followed by a series of ANOVAs to determine if the groups differed on each dependent variable separately. Finally, a stepwise multiple regression analysis (MRA) was used to determine the extent to which CAST scores could be predicted from scores on the dependent measures.
RESULTS

A two-way multivariate analysis of variance, (CAST-identified X Self-identified) with four dependent variables (state anxiety, trait anxiety, depression, and somatization), was run using BMDP 4V. Those results are shown in Table 1.

Table 1

MULTIVARIATE ANALYSIS OF VARIANCE

<table>
<thead>
<tr>
<th>Effect</th>
<th>Hotelling's TSQ</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST ACA (C)</td>
<td>7.529</td>
<td>1.83</td>
<td>4, 113</td>
<td>.127</td>
</tr>
<tr>
<td>Self ACA (S)</td>
<td>8.883</td>
<td>2.16</td>
<td>4, 113</td>
<td>.078</td>
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<tr>
<td>C X S</td>
<td>6.265</td>
<td>1.53</td>
<td>4, 113</td>
<td>.12</td>
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As indicated in Table 1, there was no main effect for CAST-identification or Self-identification, and no interaction effect. The four groups did not differ on the weighted linear composite of the four dependent variables. Follow up ANOVAs are shown in Table 2.
Table 2

ANALYSIS OF VARIANCE

<table>
<thead>
<tr>
<th></th>
<th>CAST ACA/ Self ACA</th>
<th>CAST ACA/ Self non-ACA</th>
<th>CAST non-ACA/ Self ACA</th>
<th>CAST non-ACA/Self non-ACA</th>
<th>SS</th>
<th>F</th>
<th>p</th>
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<tr>
<td>State Anxiety</td>
<td>41.20</td>
<td>38.28</td>
<td>53.00</td>
<td>36.51</td>
<td>166.97</td>
<td>1.86</td>
<td>.175</td>
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<tr>
<td>Trait Anxiety</td>
<td>42.30</td>
<td>40.78</td>
<td>34.00</td>
<td>38.21</td>
<td>29.80</td>
<td>0.31</td>
<td>.579</td>
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<tr>
<td>Depression</td>
<td>11.47</td>
<td>9.83</td>
<td>8.00</td>
<td>7.14</td>
<td>0.54</td>
<td>0.01</td>
<td>.916</td>
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<tr>
<td>Somatization</td>
<td>29.47</td>
<td>28.89</td>
<td>23.00</td>
<td>23.21</td>
<td>0.56</td>
<td>0.00</td>
<td>.960</td>
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</table>

df= 1, 116 for each F above

As indicated in Table 2, subjects scoring as ACA on the CAST did not differ from those scoring as non-ACA on the CAST on any of the dependent variables; and subjects who labeled themselves as ACA did not differ from those who labeled themselves non-ACA on any of the dependent variables.

Because only one subject scored as CAST non-ACA/Self ACA, the above analyses were repeated without this cell of n=1. As indicated in Table 3, the results were similar: there were no significant main effects and no significant interaction effect across the four dependent variables.
The only remaining questions are: What variables predict CAST scores? Is scoring high versus low on the CAST related to anxiety, depression, and somatization as theorized in the literature; or, are CAST scores a function of labeling and thinking of oneself as an ACA? To answer these questions, a stepwise multiple regression analysis (MRA) was run using BMDP 2R. This analysis predicted CAST scores from STAI, BDI, and CMI scores, and from Self-identification as ACA or non-ACA. The latter variable was dummy-coded 1 (Self ACA) and -1 (Self non-ACA). The correlation matrix for all of the variables is presented in Table 4.

### Table 3

**MULTIVARIATE ANALYSIS OF VARIANCE WITH ONE CELL DELETED**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Hotelling's TSQ</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAST ACA (C)</td>
<td>7.359</td>
<td>1.79</td>
<td>4, 113</td>
<td>.135</td>
</tr>
<tr>
<td>Self ACA (S)</td>
<td>4.664</td>
<td>1.14</td>
<td>4, 113</td>
<td>.343</td>
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<tr>
<td>C</td>
<td>S</td>
<td>2.661</td>
<td>0.65</td>
<td>4, 113</td>
</tr>
<tr>
<td>S</td>
<td>C</td>
<td>1.627</td>
<td>0.04</td>
<td>4, 113</td>
</tr>
</tbody>
</table>
Table 4

CORRELATION MATRIX

<table>
<thead>
<tr>
<th></th>
<th>State Anxiety</th>
<th>Trait Anxiety</th>
<th>BDI</th>
<th>CMI Total</th>
<th>CAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Anxiety</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trait Anxiety</td>
<td>0.677</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BDI</td>
<td>0.650</td>
<td>0.726</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMI Total</td>
<td>0.489</td>
<td>0.572</td>
<td>0.642</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>CAST</td>
<td>0.295</td>
<td>0.197</td>
<td>0.315</td>
<td>0.294</td>
<td>1.000</td>
</tr>
<tr>
<td>Self-ID</td>
<td>0.325</td>
<td>0.181</td>
<td>0.280</td>
<td>0.214</td>
<td>0.734</td>
</tr>
</tbody>
</table>

As indicated in Table 4, bivariate correlations between CAST scores and State Anxiety, Trait Anxiety, BDI, and CMI Total were all low; but the correlation between CAST and Self-ID was high ($r=.73$). The results of the MRA are shown in Table 5.
Table 5

STEPWISE MULTIPLE REGRESSION ANALYSIS

<table>
<thead>
<tr>
<th>Step #</th>
<th>Variable Selected</th>
<th>R</th>
<th>RSQ</th>
<th>SS</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self ACA</td>
<td>.735</td>
<td>.54</td>
<td>5673.94</td>
<td>138.27</td>
<td>1,118</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>CMI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Total</td>
<td>.747</td>
<td>.56</td>
<td>5871.24</td>
<td>73.95</td>
<td>2,117</td>
<td>.01</td>
</tr>
</tbody>
</table>

As indicated in Table 5, the best predictor of CAST scores was self-labeling as an ACA, which correlated .74 with CAST scores, and accounted for 54 percent of the variance in those scores. CMI total score was also selected as a predictor of CAST scores, but it only increased RSQ by .02 (2 percent of the variance in CAST scores). This result is likely to be an artifact of the CMI items in that one entire section of the CMI consists of items about drinking. No other variables were selected in the regression analysis.

One problem with the above analysis is that R could be an artifact of the dummy codes used when the n's are significantly different. To assess this, a random sub-sample of 31 of the Self-identified non-ACAs was selected, and the stepwise regression was repeated with equal n's in the Self-identified ACA and non-ACA groups. This regression yielded precisely the same R as that found on the entire sample.
Summary of Results

No differences between ACA and non-ACA groups, either CAST-identified or Self-identified, were found in two MANOVAs and a series of follow-up ANOVAs. The MRA indicated that CAST scores were related to self-labeling as ACA rather than to chronic or temporary anxiety, depression, and somatization.
DISCUSSION

The results of this study do not support the theoretical concept of ACA described in the literature. It appears that individuals who were raised by one or two alcoholic parents may not be a distinguishable group of adults who have a specific set of personality traits in common - e.g., anxiety, depression, and somatization.

This study highlights some of the major problems in the existing ACA literature through its experimental design. Unlike clinical studies in which subjects necessarily have psychiatric symptoms for which they are seeking help, this was a comparison study of ACAs and non-ACAs which used a non-clinical population sample. In addition, valid clinical measures were used to assess group differences in anxiety, depression, and somatization, and no such measures were used in previous comparison studies. These differences in methodology are one reason that the present study did not support the theorized, popular differences said to exist between ACAs and non-ACAs.

A major problem in the literature, controlled for and highlighted by this study, is the failure of previous researchers to control for self-labeling as an ACA. Clearly, individuals who label and think of themselves as ACAs may develop emotional and behavioral problems and may report symptoms because they are convinced that ACAs have those symptoms and problems. Thus, self-labeling as an ACA
can act as a self-fulfilling prophecy, and this has serious implications. One implication, as is evident from the clinical literature, is that therapists generally accept the ACA concept as true and are treating adults who were raised in alcoholic homes as if they have psychiatric symptoms, when in fact the clients may not have any real symptoms. The effect is one of reinforcing the clients' false beliefs that they do have problems because they are ACAs.

Because previous studies have used subjects who labeled themselves as ACAs, we cannot know if differences in their symptoms and scores on the CAST are "real" or an artifact of self-labeling. These data suggest the latter. The fact that Self-identification as an ACA correlated .74 with CAST scores might be interpreted as suggesting that self-labeling is a self-fulfilling prophecy. Therefore, it is highly advisable to use caution when interpreting research that has failed to control for self-labeling. Furthermore, future research should not proceed without taking self-labeling into account.

While this study has produced interesting and valuable data, the results are limited. Limitations include a relatively small sample size and the use of college students as subjects. Replication of this study with a larger, non-college sample from the general population would be useful. Future research might assess the extent to which mother versus father versus both parents as alcoholics are
influencing factors. Perhaps the gender of the alcoholic parent has an effect on later adult behavior. The gender of the child may also have an effect on the relationship between parental alcoholism and adult characteristics. Another important variable to study might be cultural or ethnic differences in children's attitudes and experiences related to parental drinking behaviors. Additional familial factors, such as socio-economic status, divorce, child abuse, and parental mental health are suggested areas of concern for subsequent studies. The relationships between these factors and parental alcoholism has not yet been explored. Perhaps some or all have an effect on adult personality.

Conclusion

It is obvious that sound empirical tests of theoretical concepts concerning adult children of alcoholics are scarce, and this study has contributed only a small amount. Further empirical research that is carefully designed and controlled is needed so that conclusions drawn about this population, currently labeled as ACA, are both reliable and valid.
APPENDIX A

CHILDREN OF ALCOHOLICS SCREENING TEST

Directions: Please circle the answer below that best describes your feelings, behavior, and experiences related to a parent's alcohol use. Take your time and be as accurate as possible. Answer all 30 questions by circling either "yes" or "no".

1. Have you ever thought that one of your parent's had a drinking problem? yes no

2. Have you ever lost sleep because of a parent's drinking? yes no

3. Did you ever encourage one of your parents to quit drinking? yes no

4. Did you ever feel alone, scared, nervous, angry or frustrated because a parent was not able to stop drinking? yes no

5. Did you ever argue or fight with a parent when he or she was drinking? yes no

6. Did you ever threaten to run away from home because of a parent's drinking? yes no

7. Has a parent ever yelled at or hit you or other family members when drinking? yes no

8. Have you ever heard your parents fight when one of them was drunk? yes no

9. Did you ever protect another family member from a parent who was drinking? yes no

10. Did you ever feel like hiding or emptying a parent's bottle of liquor? yes no

11. Do many of your thoughts revolve around a problem drinking parent or difficulties that arise because of his or her drinking? yes no

12. Did you ever wish that a parent would stop drinking? yes no

13. Did you ever feel responsible for and guilty about a parent's drinking? yes no

14. Did you ever fear that your parents would get divorced due to alcohol misuse? yes no
APPENDIX A (continued)

15. Have you ever withdrawn from and avoided outside activities and friends because of embarrassment and shame over a parent's drinking? yes no

16. Did you ever feel caught in the middle of an argument or fight between a problem drinking parent and your other parent? yes no

17. Did you ever feel that you made a parent drink alcohol? yes no

18. Have you ever felt that a problem drinking parent did not really love you? yes no

19. Did you ever resent a parent's drinking? yes no

20. Have you ever worried about a parent's health because of his or her alcohol use? yes no

21. Have you ever been blamed for a parent's drinking? yes no

22. Did you ever think your father was an alcoholic? yes no

23. Did you ever wish your home could be more like the homes of your friends who did not have a parent with a drinking problem? yes no

24. Did a parent ever make promises to you that he or she did not keep because of drinking? yes no

25. Did you ever think your mother was alcoholic? yes no

26. Did you ever wish that you could talk to someone who could understand and help the alcohol related problems in your family? yes no

27. Did you ever fight with your brothers and sisters about a parent's drinking? yes no

28. Did you ever stay away from home to avoid the drinking parent or your other parent's reactions to the drinking? yes no

29. Have you ever felt sick, cried, or had a "knot" in your stomach after worrying about a parent's drinking? yes no
APPENDIX A (continued)

30. Did you ever take over any chores and duties at home that were usually done by a parent before he or she developed a drinking problem? yes no
APPENDIX B

SPIELBERGER STATE-TRAIT ANXIETY INVENTORY

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best.

<table>
<thead>
<tr>
<th>Statement</th>
<th>NOT AT ALL</th>
<th>SOMEWHAT</th>
<th>MODERATELY</th>
<th>VERY MUCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel calm.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. I feel secure.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. I am tense.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. I am regretful.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. I feel at ease.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. I feel upset.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. I am presently worrying over possible misfortunes.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. I feel rested.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. I feel anxious.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. I feel comfortable.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. I feel self-confident.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. I feel nervous.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13. I am jittery.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14. I feel &quot;high strung&quot;</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15. I am relaxed.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16. I feel content.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>17. I am worried.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
APPENDIX B (continued)

18. I feel over-excited and "rattled"........0 0 0 0
19. I feel joyful..................................0 0 0 0
20. I feel pleasant................................0 0 0 0

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not AT ALL</th>
<th>SOMEWHAT</th>
<th>MODERATELY SO</th>
<th>VERY MUCH SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I feel pleasant.................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22. I tire quickly..................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>23. I feel like crying..............0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24. I wish I could be as happy as others seem to be..........................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25. I am losing out on things because I can’t make up my mind soon enough...0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26. I feel rested...................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>27. I am &quot;calm, cool, and collected&quot;............0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>28. I feel that difficulties are piling up so that I cannot overcome them...0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>29. I worry too much over something that really doesn’t matter...........0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>30. I am happy..........................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31. I am inclined to take things hard..................................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>32. I lack self-confidence.............0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>33. I feel secure....................0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
APPENDIX B (continued)

34. I try to avoid facing a crisis or difficulty.................0 0 0 0
35. I feel blue........................................0 0 0 0
36. I am content.................................0 0 0 0
37. Some unimportant thought runs through my mind and bothers me.............0 0 0 0
38. I take disappointments so keenly that I can't put them out of my mind.....0 0 0 0
39. I am a steady person..........................0 0 0 0
40. I get in a state of tension or turmoil as I think over my recent concerns and interests.................0 0 0 0
APPENDIX C
BECK DEPRESSION INVENTORY

Instructions: On this questionnaire are groups of statements. Please read the entire group of statements in each category. Then pick out the one statement in the group which best describes the way you feel today, that is, right now. Circle the number beside the statement you have chosen. If several statements in the group seem to apply equally well, circle each one.

Be sure to read all the statements in the group before making your choice.

A. (SADNESS)
0 I do not feel sad
1 I feel blue or sad
2a I am blue or sad all the time and I can't seem to snap out of it
2b I am so sad or unhappy that it is quite painful
3 I am so sad or unhappy that I can't stand it

B. (PESSIMISM)
0 I am not particularly pessimistic or discouraged about the future
1 I feel discouraged about the future
2a I feel I have nothing to look forward to
2b I feel that I won't ever get over my troubles
3 I feel that the future is hopeless and that things cannot improve

C. (SENSE OF FAILURE)
0 I do not feel like a failure
1 I feel I have failed more than the average person
2a I feel I have accomplished very little that is worthwhile or that means anything
2b 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 (parent, spouse)

D. (DISSATISFACTION)
0 I am not particularly dissatisfied
1 I feel bored most of the time
2a I don't get satisfaction out of anything any more
3 I am dissatisfied with everything
E. (GUILT)
0 I don't feel particularly guilty
1 I feel bad or unworthy a good part of the time
2a I feel quite guilty
2b I feel bad or unworthy practically all the time now
3 I feel as though I am very bad or worthless

F. (EXPECTATION OF PUNISHMENT)
0 I don't feel I am being punished
1 I have a feeling that something bad may happen to me
2 I feel I am being punished or will be punished
3a I feel I deserve to be punished
3b I want to be punished

G. (SELF-DISLIKE)
0 I don't feel disappointed in myself
1a I am disappointed in myself
1b I don't like myself
2 I am disgusted with myself
3 I hate myself

H. (SELF-ACCUSATIONS)
0 I don't feel I am worse than anybody else
1 I am critical of myself for my weaknesses or mistakes
2 I blame myself for my faults
3 I blame myself for everything bad that happens

I. (SUICIDAL IDEAS)
0 I don't have any thoughts of harming myself
1 I have thoughts of harming myself but I would not carry them out
2a I feel I would be better off dead
2b I feel my family would be better off if I were dead
3a I have definite plans about committing suicide
3b I would kill myself if I could

J. (CRYING)
0 I don't cry any more than usual
1 I cry more than I used to
2 I cry all the time now. I can't stop
3 I used to be able to cry but now I can't cry at all even though I want to

K. (IRRITABILITY)
0 I am no more irritated now than I ever am
1 I get annoyed or irritated more now than I used to
2 I feel irritated all the time
3 I don't get irritated at all at things that used to irritate me
APPENDIX C (continued)

L. (SOCIAL WITHDRAWAL)
0 I have not lost interest in other people
1 I am less interested in other people now than I used to be
2 I have lost most of my interest in other people and have little feeling for them
3 I have lost all of my interest in other people and don’t care about them at all

M. (INDECISIVENESS)
0 I make decisions about as well as ever
1 I try to put off making decisions
2 I have great difficulty in making decisions
3 I can’t make any decisions at all any more

N. (BODY IMAGE, CHANGE)
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 and they make me look unattractive
3 I feel that I am ugly or repulsive looking

O. (WORK INHIBITION)
0 I can work as well as before
1a It takes extra effort to get started doing something
1b I don’t work as well as I used to
2 I have to push myself very hard to do something
3 I can’t do any work at all

P. (INSOMNIA)
0 I can sleep as well as usual
1 I wake up more tired in the morning than 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 earlier every day and can’t get more than 5 hours sleep

Q. (FATIGABILITY)
0 I don’t get any more tired than usual
1 I get tired more easily than I used to
2 I get tired from doing anything
3 I get too tired to do anything

R. (ANOREXIA)
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
APPENDIX C (continued)

S.  (WEIGHT LOSS)
0  I haven't lost much weight, if any, lately
1  I have lost more than 5 pounds
2  I have lost more than 10 pounds
3  I have lost more than 15 pounds

T.  (SOMATIC PREOCCUPATION)
0  I am no more concerned about my health than usual
1  I am concerned about aches and pains or upset stomach or constipation
2  I am so concerned about how I feel or what I feel that it's hard to think of much else
3  I am completely absorbed in what I feel

U.  (LOSS OF LIBIDO)
0  I have not noticed any 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
APPENDIX D
CORNELL MEDICAL INDEX

Directions: If you answer yes to the question asked, put a circle around the yes. If you have to answer no to the question asked, put a circle around the no. Answer all questions. If you are not sure, guess.

Section A
1. Do you need glasses to read? yes no
2. Do you need glasses to see things at a distance? yes no
3. Has your eyesight often blacked out completely? yes no
4. Do your eyes continually blink or water? yes no
5. Do you often have bad pains in your eyes? yes no
6. Are your eyes often red or inflamed? yes no
7. Are you hard of hearing? yes no
8. Have you ever had a bad running ear? yes no
9. Do you have constant noises in your ears? yes no

Section B
10. Do you have to clear your throat frequently? yes no
11. Do you often feel a choking lump in your throat? yes no
12. Are you often troubled with bad spells of sneezing? yes no
13. Is your nose continually stuffed up? yes no
14. Do you suffer from a constantly running nose? yes no
15. Have you at times had bad nose bleeds? yes no
16. Do you often catch severe colds? yes no
17. Do you frequently suffer from heavy chest colds? yes no
18. When you catch a cold, do you always have to go to bed? yes no
19. Do frequent colds keep you miserable all winter? yes no
20. Do you get hay fever? yes no
21. Do you suffer from asthma? yes no
22. Are you troubled by constant coughing? yes no
23. Have you ever coughed up blood? yes no
24. Do you sometimes have severe soaking sweats at night? yes no
25. Have you ever had a chronic chest condition? yes no
26. Have you ever had T.B. (tuberculosis)? yes no
27. Did you ever live with anyone who had T.B.? yes no

Section C
28. Has a doctor ever said your blood pressure was too high? yes no
29. Has a doctor ever said your blood pressure was too low? yes no
30. Do you have pains in the heart or chest? yes no
31. Are you often bothered by thumping of the heart? yes no
32. Does your heart often race like mad? yes no
33. Do you often have difficulty in breathing? yes no
APPENDIX D (continued)

34. Do you get out of breath long before anyone else? yes no
35. Do you sometimes get out of breath just sitting still? yes no
36. Are your ankles often badly swollen? yes no
37. Do cold hands or feet trouble you even in hot weather? yes no
38. Do you suffer from frequent cramps in your legs? yes no
39. Has a doctor ever said you had heart trouble? yes no
40. Does heart trouble run in your family? yes no

Section D
41. Have you lost more than half your teeth? yes no
42. Are you troubled by bleeding gums? yes no
43. Have you often had severe toothaches? yes no
44. Is your tongue usually badly coated? yes no
45. Is your appetite always poor? yes no
46. Do you usually eat sweets or other food between meals? yes no
47. Do you always gulp your food in a hurry? yes no
48. Do you often suffer from an upset stomach? yes no
49. Do you usually feel bloated after eating? yes no
50. Do you usually belch a lot after eating? yes no
51. Are you often sick to your stomach? yes no
52. Do you suffer from indigestion? yes no
53. Do severe pains in the stomach often double you up? yes no
54. Do you suffer from constant stomach trouble? yes no
55. Does stomach trouble run in your family? yes no
56. Has a doctor ever said you had stomach ulcers? yes no
57. Do you suffer from frequent loose bowel movements? yes no
58. Have you ever had severe bloody diarrhea? yes no
59. Were you ever troubled with intestinal worms? yes no
60. Do you constantly suffer from bad constipation? yes no
61. Have you ever had piles (rectal hemorrhoids)? yes no
62. Have you ever had jaundice (yellow eyes and skin)? yes no
63. Have you ever had serious liver or gall bladder trouble? yes no

Section E
64. Are your joints often painfully swollen? yes no
65. Do your muscles and joints constantly feel stiff? yes no
66. Do you usually have severe pains in the arms or legs? yes no
67. Are you crippled with severe rheumatism (arthritis)? yes no
68. Does rheumatism run in your family? yes no
69. Do weak or painful feet make your life miserable? yes no
70. Do pains in the back make it hard for you to keep up with your work? yes no
71. Are you troubled with a serious bodily disability or deformity? yes no
APPENDIX D (continued)

Section F
72. Is your skin very sensitive or tender? yes no
73. Do cuts in your skin usually stay open a long time? yes no
74. Does your face often get badly flushed? yes no
75. Do you sweat a great deal even in cold weather? yes no
76. Are you often bothered by severe itching? yes no
77. Does your skin often break out in a rash? yes no
78. Are you often troubled with boils? yes no

Section G
79. Do you suffer badly from frequent severe headaches? yes no
80. Does pressure or pain in the head often make life miserable? yes no
81. Are headaches common in your family? yes no
82. Do you have hot or cold spells? yes no
83. Do you often have spells of severe dizziness? yes no
84. Do you frequently feel faint? yes no
85. Have you fainted more than twice in your life? yes no
86. Do you have constant numbness or tingling in any part of your body? yes no
87. Was any part of your body ever paralyzed? yes no
88. Were you ever knocked unconscious? yes no
89. Have you at times had a twitching of the face, head, or shoulders? yes no
90. Did you ever have a fit or convulsion (epilepsy)? yes no
91. Has anyone in your family ever had fits or convulsions? yes no
92. Do you bite your nails badly? yes no
93. Are you troubled by stuttering or stammering? yes no
94. Are you a sleep walker? yes no
95. Are you a bed wetter? yes no
96. Were you a bed wetter between the ages of 8 & 14? yes no

Section H
97. Do you have to get up every night and urinate? yes no
98. During the day, do you usually have to urinate frequently? yes no
99. Do you often have severe burning pain when you urinate? yes no
100. Do you sometimes lose control of your bladder? yes no
101. Has a doctor ever said you had kidney or bladder disease? yes no

Section I
102. Do you often get spells of complete exhaustion or fatigue? yes no
103. Does working tire you out completely? yes no
APPENDIX D (continued)

104. Do you usually get up tired and exhausted in the morning?  yes no
105. Does every little effort wear you out?  yes no
106. Are you constantly too tired and exhausted even to eat?  yes no
107. Do you suffer from severe nervous exhaustion?  yes no
108. Does nervous exhaustion run in your family?  yes no

Section J
109. Are you frequently ill?  yes no
110. Are you frequently confined to bed by illness?  yes no
111. Are you always in poor health?  yes no
112. Are you considered a sickly person?  yes no
113. Do you come from a sickly family?  yes no
114. Do severe pains and aches make it impossible for you to do your work?  yes no
115. Do you wear yourself out worrying about your health?  yes no
116. Are you always ill and unhappy?  yes no
117. Are you constantly made miserable by your health?  yes no

Section K
118. Did you ever have scarlet fever?  yes no
119. As a child, did you have rheumatic fever, growing pains, or twitching of the limbs?  yes no
120. Did you ever have malaria?  yes no
121. Were you ever treated for severe anemia (thin blood)?  yes no
122. Were you ever treated for "bad blood" (venereal disease)?  yes no
123. Do you have diabetes (sugar disease)?  yes no
124. Did a doctor ever say you had a goiter (in your neck)?  yes no
125. Did a doctor ever treat you for tumor or cancer?  yes no
126. Do you suffer from any chronic disease?  yes no
127. Are you definitely under weight?  yes no
128. Are you definitely over weight?  yes no
129. Did a doctor ever say you had varicose veins (swollen veins) in your legs?  yes no
130. Did you ever have a serious operation?  yes no
131. Did you ever have a serious injury?  yes no
132. Do you often have small accidents or injuries?  yes no

Section L
133. Do you usually have great difficulty in falling asleep or staying asleep?  yes no
134. Do you find it impossible to take a regular rest period each day?  yes no
135. Do you find it impossible to take regular daily exercise?  yes no
APPENDIX D (continued)

136. Do you smoke more than 20 cigarettes a day?  yes  no
137. Do you drink more than six cups of coffee or tea a day?  yes  no
138. Do you usually take two or more alcoholic drinks a day?  yes  no

Section M
139. Do you sweat or tremble a lot during examinations or questioning?  yes  no
140. Do you get nervous and shaky when approached by a superior?  yes  no
141. Does your work fall to pieces when the boss or a superior is watching you?  yes  no
142. Does your thinking get completely mixed up when you have to do things quickly?  yes  no
143. Must you do things very slowly in order to do them without mistakes?  yes  no
144. Do you always get directions and orders wrong?  yes  no
145. Do strange people or places make you afraid?  yes  no
146. Are you scared to be alone when there are no friends near you?  yes  no
147. Is it always hard for you to make up your mind?  yes  no
148. Do you wish you always had someone at your side to advise you?  yes  no
149. Are you considered a clumsy person?  yes  no
150. Does it bother you to eat anywhere except in your own home?  yes  no

Section N
151. Do you feel alone and sad at a party?  yes  no
152. Do you usually feel unhappy and depressed?  yes  no
153. Do you often cry?  yes  no
154. Are you always miserable and blue?  yes  no
155. Does life look entirely hopeless?  yes  no
156. Do you often wish you were dead and away from it all?  yes  no

Section O
157. Does worrying continually get you down?  yes  no
158. Does worrying run in your family?  yes  no
159. Does every little thing get on your nerves and wear you out?  yes  no
160. Are you considered a nervous person?  yes  no
161. Does nervousness run in your family?  yes  no
162. Did you ever have a nervous breakdown?  yes  no
163. Did anyone in your family ever have a nervous breakdown?  yes  no

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APPENDIX D (continued)

164. Were you ever a patient in a mental hospital (for your nerves)?
165. Was anyone in your family ever a patient in a mental hospital (for their nerves)?

Section P
166. Are you extremely shy or sensitive?
167. Do you come from a shy or sensitive family?
168. Are your feelings easily hurt?
169. Does criticism always upset you?
170. Are you considered a touchy person?
171. Do people usually misunderstand you?

Section Q
172. Do you have to be on your guard even with friends?
173. Do you always do things on sudden impulse?
174. Are you easily upset or irritated?
175. Do you go to pieces if you don't constantly control yourself?
176. Do little annoyances get on your nerves and make you angry?
177. Does it make you angry to have anyone tell you what to do?
178. Do people often annoy and irritate you?
179. Do you flare up in anger if you can't have what you want right away?
180. Do you often get into a violent rage?

Section R
181. Do you often shake or tremble?
182. Are you constantly keyed up and jittery?
183. Do sudden noises make you jump or shake badly?
184. Do you tremble or feel weak whenever someone shouts at you?
185. Do you become scared at sudden movements or noises at night?
186. Are you often awakened out of your sleep by frightening dreams?
187. Do frightening thoughts keep coming back in your mind?
188. Do you often become suddenly scared for no good reason?
189. Do you often break out in a cold sweat?
REFERENCES


