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EGO - STRENGTH, MANIFEST ANXIETY,  
AND DEFENSIVENESS

Thesis for the Degree of M. A.  
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Marvin Schiller

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EGO-STRENGTH, MANIFEST ANXIETY,  
AND DEFENSIVENESS

BY  
MARVIN SCHILLER

A THESIS

Submitted to the College of Science and Arts  
Michigan State University of Agriculture and  
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MASTER OF ARTS

Department of Psychology

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M. S.

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AN ABSTRACT

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## ABSTRACT

In testing the construct validity of the Barron Ego-Strength Scale and the Taylor Manifest Anxiety Scale, the following hypotheses were formulated: (a) ego-strength is negatively related to defensiveness, and (b) manifest anxiety is positively related to defensiveness.

The subjects were 60 male problem drivers who, due to excessive violations or accidents, had been summoned to the Office of the Secretary of State (Michigan) for re-examination of their qualifications as drivers. It was assumed that this situation, which could result in the loss of the individual's driving permit, was sufficiently anxiety-producing to elicit defensive behavior. Prior to re-examination, the subjects were administered the Barron Ego-Strength Scale, Taylor Manifest Anxiety Scale, K Scale of the MMPI, Vocabulary Subtest from the WAIS, and the DDB Inventory. The latter test, especially constructed for this research, was designed to measure defensiveness against accepting personal responsibility for one's traffic record.

Neither a pilot study nor the present study confirmed the hypotheses although trends were obtained in the predicted directions. Additional analyses revealed the following results: (a) intelligence was not significantly related to either the ego-strength or the anxiety scale, a controversial issue in regard to the latter; and (b) the response set "acquiescence" was a significant factor in both the ego-strength and K scales. The contaminating effects of response set

present difficulties in interpreting any relationships obtained with these scales.

The concept of defensiveness was given some attention. On the basis of a pilot study, it was suggested that a more appropriate approach to this problem might lie in utilizing a typology of defenses, as emphasized by Freud, rather than a general level of defensiveness (as was used in the present research).

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## I. Introduction

In recent years there has been a flood of research using measurements derived from the Barron Ego-Strength Scale (1) and the Taylor Manifest Anxiety Scale (28). This trend seems understandable when it is considered that the variables supposedly measured by these two scales are crucial ones in several theoretical considerations of personality. The present investigation represents an attempt to evaluate the Barron and Taylor scales on the basis of what has been termed "construct" validity (6). More specifically, the theoretical and empirical focus will be on their relationship to the variable "defensiveness." Since the interaction of these variables has usually been considered in a psychotherapeutic context, this frame of reference will be employed to some extent for deriving hypotheses. Actual data, however, will not be collected in a psychotherapeutic setting.

In developing the Ego-Strength Scale (ES scale), Barron (1) selected items from the Minnesota Multiphasic Personality Inventory (MMPI) which were related to good prognosis in psychotherapy with neurotic outpatients. The items held up in a cross-validated study with an independent sample of neurotics. The item content of the scale was interpreted by Barron as indicating the strengths that are "generally ascribed to a well-functioning ego." Wirt (30) has found that the ES scale also predicts response to psychotherapy in hospitalized neuropsychiatric patients. The Manifest Anxiety Scale (A scale) (28) was also derived from the MMPI, the items being selected by judges on the

basis of Cameron's (4) description of chronic manifest anxiety.

Although the A scale was originally devised by Taylor in the context of Hullian drive theory, it has frequently been used in reference to clinical situations. Several studies (2, 15, 16, 27) have correlated the A scale with clinical manifestations of anxiety; and although there are equivocal features in the findings, the results generally indicate that the A scale shares some common variance with clinical ratings of anxiety.

Defensiveness is a general concept, essentially a quantitative extension of Freud's specific type of defenses. Thus, defensive behavior pertains to general patterns of response which allow the individual (usually on an unconscious level) to reject certain experiences that are deemed incongruent or threatening to his ego-structure or self-concept. Page and Markowitz (23) describe the defensive person as one failing to ascribe to himself behavior of a generally valid but socially unacceptable nature. Information contradictory to the self-concept is viewed as irrelevant and unreliable. In the psychotherapeutic situation, defensive behavior can be seen in terms of resistance, resistance to critical self appraisal and acceptance of negative self aspects. It would therefore be expected that persistent defensiveness would act as a barrier to therapeutic progress. There is some empirical evidence indicating that successful therapy is negatively correlated with defensiveness (25). Such evidence is compatible with a negative relationship between ego-strength and defensiveness, as the latter in the form of the ES scale was found to be positively related to psychotherapeutic success.

As an individual matures he learns to differentiate between the satisfying and frustrating stimuli impinging upon him. He learns to protect himself from feelings which are inappropriate and from situations that might prove to be dangerous. Attempts at satisfaction of basic needs that are denied by the self (or ego) are said to bring about a state of tension (10, 24). The result of the awareness of this tension is anxiety, which in turn triggers some form of defensive behavior. This defensiveness then alleviates the anxiety by reducing the awareness of threat (14).

When the ego lacks sufficient strength to adequately deal with threatening situations, some defensive maneuvers are resorted to as a means of avoiding and denying the situation so as to gain protection. According to the psychoanalytic approach, as exemplified by Fenichel (10), a necessary precondition for the use of a defense mechanism is a weakness of ego organization. He states, "The gradual development of the ego and of the reality principle strengthens experience and memory and slowly weakens the tendency to deny. As long as the ego is weak, the tendency toward denial may remain relatively superior." (pp. 144-145)

The individual entering therapy, though displaying a wide variety of protective defensive behavior, is unable to muster enough ego-strength to enable him to cope with and be protected from anxiety-producing threats. In the course of therapy, defensive behavior is seen to decrease and at the same time certain latent strengths of the ego begin to reveal themselves (24, 25).

### Hypotheses

In light of the preceding discussion, the following hypotheses have been posed: (a) Hypothesis 1, the ES scale, as a measure of ego-strength, is negatively related to defensiveness; and (b) Hypothesis 2, the A scale, as a measure of manifest anxiety, is positively related to defensiveness.

The theoretical framework employed in this research suffers from a certain vagueness and a lack of well-defined concepts. It is quite possible that other hypotheses could be set up which would be contradictory to those formulated here. A pilot study provides some support for the present hypotheses (see Appendix A); and although not statistically significant, the relationships were generally in the predicted direction. As compared to the pilot study, the present research represents a refinement in methodology.

### Secondary issues

The K scale of the MMPI was constructed by Meehl and Hathaway (22) as a suppressor variable to measure defensiveness, test-taking defensiveness. There is some controversy, however, over what the K scale actually measures. Meehl and Hathaway acknowledge that more than test-taking defensiveness may be involved in this scale. It may measure, to some degree, the adequacy of a subject's ego-strength. The latter contention receives some support from the correlation of .31, reported by Barron (1), between the ES scale and K. Feldman (9) has also obtained results which lead him to suggest that the items contained in the K scale may indicate "realistic self criticism and good ego strength." The present

research seems to offer an opportunity for an evaluation of this scale, so provisions were made to include it in the methodology.

Conflicting reports have recently been presented in the literature concerning the relationship between intelligence and manifest anxiety. A number of researchers (3, 12, 17, 20) reported a slight, but significant negative correlation between intelligence and the Taylor A scale, while others (7, 8, 21, 27) found no relationship. Studies concerning intelligence and ego-strength are not as numerous and appear less controversial. Barron (1), while equating "ego-determined behavior" with intelligent behavior, reports several significant positive correlations between his ES scale and various measures of intelligence. A further clarification of these relationships will be attempted in the present study.

## II. Methodology

One of the major problems in studying defensive behavior involves devising a situation, within ethical limits, which will be sufficiently threatening to the subjects so that defenses will be elicited. As a means toward this end, the author worked in conjunction with the Highway Traffic Safety Center (Michigan State University) and the Driver and Vehicle Services, Office of the Secretary of State, Lansing, Michigan. The subjects (Ss) under study were problem drivers (high-violation and/or high-accident drivers) who were required by law to appear for a re-examination of their driver qualifications. Most of the Ss were aware that, as a result of their interview with one of the license examiners, their future driving privileges were in jeopardy. In practice, the examiner made one of the following dispositions: a) revocation of driver's license for a minimum of one year, b) temporary suspension of driver's license (60 to 180 days), c) retention of driver's license with a warning against further violations. The assumption was made that this situation, which could result in the loss of the individual's driving permit, was sufficiently fraught with anxiety as to provoke the elicitation of defensive behavior.

### Subjects

The Ss were 60 male problem drivers ranging in age from 17 to 62 years ( $\bar{M} = 25.67$ ,  $SD = 10.04$ ). The educational achievement of the Ss ranged from 8 to 16 years ( $\bar{M} = 11.82$ ,  $SD = 1.99$ ). Due to the verbal



nature of the instruments presented to each S, restrictions had to be made on the suitability of each of the examinees in terms of literacy and verbal intelligence. Any question arising about reading difficulty resulted in the S being asked to read aloud as a test of ability. The Vocabulary Subtest (V subtest) of the Wechsler Adult Intelligence Scale (WAIS) served as a measure of intellectual performance. All potential Ss achieving below an arbitrarily established cut-off point (scale score of 7) were also disqualified from consideration in this research.

### Measuring devices

The items of the ES, A, and K scales were randomly combined into one instrument labeled the Personal Inventory (see Appendix B). As was previously mentioned, the V subtest was routinely presented as a screening device. The correlation between V and the Full Scale IQ of the WAIS is of the order of .85 (29).

A special device was developed to yield a quantitative measure of "defensiveness against accepting personal responsibility for one's traffic record" (18). More than 300 interview records with problem drivers seen at the Driver and Vehicle Services were examined and culled for defensive statements. Twenty-eight such items were assembled and randomly combined with 12 non-defensive statements to comprise the DDB (Defensiveness About Driving Behavior) Inventory (see Appendix C). The agreement among three judges in classifying the 40 items as either defensive or non-defensive was 100%.

There was considerable variability in the "defensive content," or in the obvious-subtle nature, of the statements in the DDB Inventory.

The following are sample items.

Defensive items:

- #7 "Anyone who drives as much as I do is almost certain to pick up traffic tickets."
- #15 "I think that paying fines is enough punishment for traffic violations."

Non-defensive item:

- #39 "When you get right down to it, I don't have any excuses for my record."

The instructions for the DDB Inventory were as follows: S wrote "0" if he disagreed with the statement, "1" if he agreed a little or to some extent, and "2" if he agreed very much with the statement. Two scores were derived from the scale. A defensive score (D) was simply the sum of the weighted responses to the defensive items. A corrected defensive score (CD) took into consideration responses to the non-defensive items by the following formula:  $CD = \sum D - \sum ND + 24$ . The distributions of the scores were found to approximate normality; and the correlation between D and CD was established at .83, indicating that they are very similar measures of defensiveness.

The reliability of the DDB Inventory was assessed by the split-half method using the Spearman-Brown correction. The obtained reliability coefficients were .81 for D and .84 for CD (N = 60).

The relationship between DDB defensive measures and interview ratings of defensiveness was examined for information on the concurrent validity of the DDB Inventory. Problem drivers were rated on a five-point scale by one of two examiners from the content of an interview conducted shortly after the DDB and Personal Inventories had been

completed. The examiners' ratings were uninfluenced by an awareness of the test results. The five well-defined anchoring descriptions on the rating scale (see Appendix D) were developed in terms of the degree of acceptance for past driving behavior.

The correlations in Table 1 represent the relationships between DDB measures of defensiveness and interview ratings ( $IR_1$ ) of defensiveness in the present investigation, as well as a pilot study. A nine-point rating scale ( $IR_2$ ) was used in the pilot study. With the exception of one, all of the correlations are statistically significant at the .01 level of confidence, ranging from .33 to .61. (Inter-rater reliability computed for the interview measures, using two independent judges, was .72 ( $N = 35$ ).) The results, in general, give evidence for the concurrent validity of the DDB Inventory as a measure of defensiveness.

### Procedure

Upon arrival at the Driver and Vehicle Services according to an appointment schedule, each S ( $N = 60$ ), without an explanation, was asked to "fill out" the DDB Inventory. Prior to the administration of the V subtest and the Personal Inventory, the Ss were made aware of the fact that neither his conversation with the test administrator nor his responses on the various scales would be considered in the final disposition concerning his driver's license.

Following the testing situation, each subject was interviewed and informed of his standing with respect to his traffic record and driver's license by an official of the State of Michigan.

Table 1

Product-Moment Correlations Between the DDB Measures of  
Defensiveness and Interview Ratings of Defensiveness

Interview Ratings	Preliminary DDB Inventory		Revised DDB Inventory	
	<u>D</u>	<u>CD</u>	<u>D</u>	<u>CD</u>
<u>IR<sub>1</sub></u>	.42 <sup>*a</sup>	.56 <sup>*a</sup>	.61 <sup>*b</sup>	.53 <sup>*b</sup>
<u>IR<sub>2</sub></u>			.33 <sup>*c</sup>	.17 <sup>c</sup>

\* Significant at the .01 level of confidence.

a  $\bar{N}$  = 50.

b  $\bar{N}$  = 26.

c  $\bar{N}$  = 60.

### III. Results

#### Hypothesis 1

The scores on the ES scale were compared with the two measures of defensiveness from the DDB Inventory, D and CD, for the 60 Ss. The obtained product-moment correlation for D was  $-.18$  and for CD was  $-.11$ . Both of these relationships, though not statistically significant, were in the predicted direction. ES was also correlated with the interview ratings of defensiveness (IR<sub>1</sub>), and the r was found to be  $-.02$ . The results appear to be similar to those obtained in the pilot study.

A further analysis of the findings appears in Table 2. The 60 Ss were divided into three equal sized groups (high, medium, and low) according to their ES scores. The D scores of the twenty highest and twenty lowest were compared by means of a t test, and no significant difference was found between the group means. A similar analysis with the CD scores also yielded negative results. Consequently, the hypothesis that ES is negatively related to defensiveness is not confirmed.

#### Hypothesis 2

An analysis of the relationship between the scores of the A scale and the defensiveness measures was made as a test of the second hypothesis. The product-moment correlation between A and D was  $.16$ ; for A and CD, it was  $.06$ . The relationship between A and IR<sub>1</sub> was  $-.16$ , which is neither statistically significant nor in the predicted

Table 2

Comparison of the D Scores of the 60  
Subjects Equally Divided into High, Medium,  
and Low Groups According to ES Scores

<u>D</u> scores	<u>Ego-Strength*</u>		
	Low	Medium	High
M	14.61	12.90	12.89
S.D.	7.50	6.41	7.45

\* t ratio between extreme groups (Low vs. High) =  $t = 0.74$

Table 3

Comparison of the D Scores of the 60  
Subjects Equally Divided into High, Medium,  
and Low Groups According to A Scores

<u>D</u> scores	<u>Manifest Anxiety*</u>		
	Low	Medium	High
M	10.54	14.45	15.40
S.D.	6.18	7.92	8.27

\* t ratio between extreme groups (Low vs. High) =  $t = 2.10$  ( $p < .05$ )

direction. As in the pilot study, most of the correlations are in the predicted direction but not statistically significant.

A procedure similar to that employed in hypothesis 1 was used with the scores of the A scale. The Ss with the twenty highest and twenty lowest scores on the A scale were compared for differences in defensiveness (D). The results of this comparison is seen in Table 3.

A significant difference at the .05 level between the group means was revealed via a t test. When the CD scores were used in this analysis, no significant difference was found. The results are thus quite inconsistent, and the hypothesis concerning a positive relation between the A scale and defensiveness must be regarded as not confirmed.

#### Correlates of the K scale

A comparison between the K scale and the measures of defensiveness revealed a  $-.32$  correlation with D and a  $-.12$  correlation with CD, the former being statistically significant at the .02 level of confidence. The product-moment correlation between K and ES was  $.26$ , significant at the .05 level of confidence. Thus, these correlations suggest that K, rather than being a measure of defensiveness, is associated more with functions pertaining to ego-strength.

#### ES, A, and intelligence

Scores on the V subtest correlated  $.11$  with the A scale and  $.07$  with ES. Neither of these relationships was found to be statistically significant.

Appendix E gives the intercorrelations among the various scales, as well as with V, age, and education.

### Response set as a factor

The importance of response sets in test takers on objective test results has been emphasized by Cronbach (5). Fricke (11) and Hanley (13) have recently presented evidence showing the influence of the response set "acquiescence," the systematic tendency to agree or respond "yes" to test items independent of content. It was decided to explore the role of acquiescence in the present data.

The ES scale, which consists of 25 items keyed "true" and 43 keyed "false," was revised by combining the 25 true items with 25 items randomly selected from those keyed false. A correlation of  $-.34$  ( $p < .01$ ) between the scores of the 25 true and 25 false items indicated a set to respond systematically independent of item content. This point was further pursued by computing Kuder-Richardson reliability coefficients. When the revised ES scale was scored for ego-strength, the reliability coefficient was  $.34$ . When scored for acquiescence (all items keyed "true"), the reliability was  $.67$ . These findings suggest that the revised ES scale more reliably measures acquiescence than it does ego-strength.

The following significant correlations were obtained in this study: K vs. D,  $-.32$  ( $p < .02$ ); and K vs. ES,  $.26$  ( $p < .05$ ). The question arises as to whether these correlations were due to common variance contributed by acquiescence. Table 4 shows the relationship of K, D, and ES to acquiescence, as derived from the revised ES scale. When the variance attributable to this measure of acquiescence was partialled out, the correlation between K and D dropped from  $-.32$  to a statistically



Table 4  
Product-Moment Correlations  
Between Acquiescence  
and K, D, and ES

	<u>K</u>	<u>D</u>	<u>ES</u>
Acquiescence	-.62**	.26*	-.08

\* Significant at the .05 level of confidence.

\*\* Significant at the .01 level of confidence.

insignificant  $-.19$ . The correlation between K and ES remained essentially unchanged, from  $.26$  to  $.27$ , when acquiescence was taken into consideration. This is accounted for by the lack of correlation ( $r = -.08$ ) between acquiescence and the ES scale. It would appear that the additional 18 false items in the original ES scale masked the operation of acquiescence that is present in the scale.

#### IV. Discussion

The relationships of ego-strength and anxiety with defensiveness, as stipulated by this study's two hypotheses, were not confirmed. Although the results were in the predicted direction in both a pilot and the present study, the correlations were not statistically significant. In attempting to account for negative results, the usual procedure is to re-examine both the theoretical orientation and the methodology that was employed.

It was pointed out earlier that the theoretical considerations that led to the hypotheses suffered from a certain lack of specificity. The possibility of alternative hypotheses was acknowledged. Klopfer (19) provides an example in suggesting a curvilinear relationship between ego-strength and defensiveness. The data, as shown in Table 2, do not support this contention. The trend of the nonsignificant relationship was linear in nature.

The concept of defensiveness seems to warrant some attention. It is a quantitative concept that has evolved from Freud's typology of defenses. The question arises as to whether it would not have been more appropriate to relate ego-strength to certain types of defenses rather than general defensiveness. Psychoanalytic theory would seem to be compatible with this type of orientation. By classifying the items of the DDB Inventory into specific types of defenses (e.g., projection, denial), the present data can be used for such an analysis. In a pilot study based on a reanalysis of the present data, the author

(26) has found a significant interaction between level of ego-strength and type of defensive behavior (projection and rationalization).

The available evidence thus suggests that future research in this area might more profitably be concerned with types of defenses instead of an overall measure of defensiveness.

The results also uncovered certain methodological problems, particularly in regard to the personality scales. Contamination due to the response set of acquiescence was found to be present in both the ES and K scales. Such deficiencies make it difficult to interpret the correlations obtained with these scales. The correlations, for example, suggested that the measurements provided by the K scale were more related to ego-strength than to defensiveness, but the interpretative picture is obscured by common variance contributed by acquiescence. In fact, the K scale was found to be so highly saturated with response set ( $r = -.62$ ) that its diagnostic value would seem to be highly limited.

No relationship was found between intelligence and either the ES or the A scale, this being a controversial issue in regard to the latter scale. As shown in Appendix E, the ES scale was found to be correlated with age and education,  $r = .26$  in both cases ( $p < .05$ ). The interpretation might be offered that the ES scale tends to reflect "maturation" factors rather than intelligence.

In conclusion, it might be said that construct validity, as a relatively new orientation in test theory, offers a broad, flexible frame of reference for validating personality scales. Other more basic

features of test construction cannot be neglected, however. For example, well-designed research in terms of construct validity cannot overcome deficiencies stemming from the low reliabilities of the instruments. The present study pointed to the operation of response set, a systematic set to respond to the test items independent of their content. If valid tests are to be constructed, initial attention must be devoted to correcting such basic deficiencies.<sup>1</sup>

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<sup>1</sup>A short paper on the analysis of response set in the present study has been prepared. King, G. F., & Schiller, M. Note on ego-strength, defensiveness, and acquiescence. Psychol. Rep., in press.

## V. Summary

The purpose of this investigation was to evaluate the Barron Ego-Strength (ES) Scale and the Taylor Manifest Anxiety (A) Scale in terms of construct validity. The particular focus was on the relationship of these scales to the variable "defensiveness."

The DDB (Defensiveness About Driving Behavior) Inventory was developed as a measure of defensiveness and found to be both reliable and valid for this purpose. The 60 male Ss were high-violation and/or high-accident drivers who were required to report for a re-examination of their driver qualifications. It was assumed that this situation, in which the possibility of the loss of the individual's driving permit existed, was sufficiently anxiety-producing to bring about the elicitation of defensiveness.

In addition to the ES, A, and DDB Inventory, the K scale of the MMPI and the Vocabulary Subtest of the WAIS were also administered, which allowed the exploration of several secondary issues.

It was hypothesized that 1) ego-strength is negatively related to defensiveness, and 2) manifest anxiety is positively related to defensiveness. Neither a pilot study (N = 50) nor the present investigation (N = 60) confirmed the hypotheses although the trends were in the predicted direction.

An analysis of the ES and K scales revealed that the response set "acquiescence" was a significant factor in both scales.

Such contamination makes it difficult to interpret any results obtained with these scales. It was also found that there was no significant relationship between intelligence and either the ES or A scales, which has been a controversial issue for the latter.

In discussing the results, the concept of defensiveness was given some scrutiny. A pilot study involving a reanalysis of the data suggests that a more appropriate approach to this problem might lie in utilizing a typology of defenses, as emphasized by Freud, rather than a general level of defensiveness as the primary frame of reference. Attention was also given to some basic methodological problems relevant to test construction and validation.

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## Appendix A

## Appendix A

The Relationship of Ego-Strength and Manifest Anxiety to Defensiveness: Pilot Study (N = 50)

Measures of defensiveness *	<u>ES</u>	<u>A</u>
<u>D</u>	-.20**	.14
<u>CD</u>	-.13	.16
<u>IR<sub>2</sub></u>	-.08	-.07

\* Key: D and CD are defensive scores derived from a preliminary version of a defensive inventory (DDB). IR<sub>2</sub> pertains to an interview rating of defensiveness.

\*\* None of the correlations are statistically significant at the .05 level of confidence.

## Appendix B

## PERSONAL INVENTORY

- T F 1. I do not tire easily.
- T F 2. I have very few headaches.
- T F 3. I am often sick to my stomach.
- T F 4. I work under a great deal of strain.
- T F 5. I am about as nervous as other people.
- T F 6. I cannot keep my mind on one thing.
- T F 7. I have a good appetite.
- T F 8. I seldom worry about my health.
- T F 9. At times I hear so well it bothers me.
- T F 10. Often I cross the street in order not to meet someone I see.
- T F 11. Sometimes some unimportant thought will run through my mind and bother me for days.
- T F 12. When I leave home, I do not worry about whether the door is locked and the windows closed.
- T F 13. I have met problems so full of possibilities that I have been unable to make up my mind about them.
- T F 14. I frequently notice my hand shakes when I try to do something.
- T F 15. I blush as often as others.
- T F 16. I have periods in which I feel unusually cheerful without any special reason.
- T F 17. I have diarrhea ("the runs") once a month or more.
- T F 18. I worry quite a bit over possible troubles.
- T F 19. I believe my sins are unpardonable.
- T F 20. I have had some very unusual religious experiences.
- T F 21. Everything is turning out just like the prophets in the Bible said it would.
- T F 22. I have nightmares every few nights.
- T F 23. I am often afraid that I am going to blush.
- T F 24. My hands and feet are usually warm enough.
- T F 25. I sweat very easily even on cool days.

- T F 26. I worry over money and business.
- T F 27. I find it hard to set aside a task that I have undertaken, even for a short time.
- T F 28. I practically never blush.
- T F 29. When embarrassed I often break out in a sweat which is very annoying.
- T F 30. I have had quite a few quarrels with members of my family.
- T F 31. I feel hungry almost all the time.
- T F 32. At times my thoughts have raced ahead faster than I could speak them.
- T F 33. I am against giving money to beggars.
- T F 34. Often my bowels don't move for several days at a time.
- T F 35. I do not often notice my heart pounding and I am seldom short of breath.
- T F 36. I have a great deal of stomach trouble.
- T F 37. I think nearly anyone would tell a lie to keep out of trouble.
- T F 38. Christ performed miracles such as changing water into wine.
- T F 39. Sometimes I enjoy hurting persons I love.
- T F 40. I do not like to see women smoke.
- T F 41. I like to talk about sex.
- T F 42. I like to let people know where I stand on things.
- T F 43. I have often met people who were supposed to be experts who were no better than I.
- T F 44. At times I lose sleep over worry.
- T F 45. I am easily embarrassed.
- T F 46. I never attend a sexy show if I can avoid it.
- T F 47. I am attracted by members of the opposite sex.
- T F 48. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right.
- T F 49. My sleep is restless and disturbed.
- T F 50. I think a great many people exaggerate their misfortunes in order to gain sympathy and help of others.
- T F 51. I certainly feel useless at times.
- T F 52. I have often felt that I faced so many difficulties I could not overcome them.

- T F 53. I like to flirt.
- T F 54. I can be friendly with people who do things which I consider wrong.
- T F 55. What others think of me does not bother me.
- T F 56. I often dream about things I don't like to tell other people.
- T F 57. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep".
- T F 58. My skin seems to be unusually sensitive to touch.
- T F 59. I have had no difficulty in keeping my balance in walking.
- T F 60. At times I have fits of laughing and crying that I cannot control.
- T F 61. My feelings are more easily hurt than most people.
- T F 62. I wish I could be as happy as others.
- T. F 63. I am usually calm and not easily upset.
- T F 64. I cry easily.
- T F 65. I feel anxious about something or someone almost all of the time.
- T F 66. I often find myself worrying about something,
- T F 67. I get mad easily and then get over it soon.
- T F 68. I am happy most of the time.
- T F 69. It makes me nervous to have to wait.
- T F 70. When someone says silly or ignorant things about something I know, I try to set him right.
- T F 71. I like to cook.
- T F 72. I like collecting flowers or growing house plants.
- T F 73. If I were an artist, I would like to draw children.
- T F 74. At times I am so restless that I cannot sit in a chair for very long.
- T F 75. Sometimes I become so excited that I find it hard to get to sleep.
- T F 76. I am not afraid of fire.
- T F 77. I am made nervous by certain animals.
- T F 78. At times I have been worried beyond reason about something that really did not matter.
- T. F 79. Dirt frightens or disgusts me.



- T F 80. I am afraid of finding myself in a closet or small closed space.
- T F 81. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose.
- T F 82. I have never felt better in my life than I do now.
- T F 83. I have a cough most of the time.
- T F 84. My hands have not become clumsy or awkward.
- T F 85. I do not have as many fears as my friends.
- T F 86. I have been afraid of things or people that I know could not hurt me.
- T F 87. I am more self-conscious than most people.
- T F 88. I am the kind of person who takes things hard.
- T F 89. People often disappoint me.
- T F 90. I am a very nervous person.
- T F 91. Life is often a strain for me.
- T F 92. I feel weak all over much of the time.
- T F 93. I find it hard to make talk when I meet new people.
- T F 94. At times I think I am no good at all.
- T F 95. I am not at all confident in myself.
- T F 96. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.
- T F 97. I have never had a fainting spell.
- T F 98. I feel sympathetic towards people who tend to hang on to their griefs and troubles.
- T F 99. I brood a great deal.
- T F 100. When in a group of people I have trouble thinking of the right things to talk about.
- T F 101. I feel tired a good deal of the time.
- T F 102. If I were an artist, I would like to draw flowers.
- T F 103. At times I feel like swearing.
- T F 104. It takes a lot of argument to convince most people of the truth.
- T F 105. I don't like to face a difficulty or make an important decision.
- T F 106. I like science.

- T F 107. I very much like horseback riding.
- T F 108. One or more members of my family is very nervous.
- T F 109. Criticism or scolding hurts me terribly.
- T F 110. At times I am full of energy.
- T F 111. The man who had most to do with me when I was a child (such as father, stepfather, etc.) was very strict with me.
- T F 112. I am very confident of myself.
- T F 113. I have often been frightened in the middle of the night.
- T F 114. I feel unable to tell anyone all about myself.
- T F 115. I go to church almost every week.
- T F 116. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing.
- T F 117. At times I feel that I am going to crack up.
- T F 118. Often I can't understand why I have been so cross and grouchy.
- T F 119. I often think "I wish I were a child again."
- T F 120. I pray several times every week.
- T F 121. I have strange and peculiar thoughts.
- T F 122. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.
- T F 123. When I am with people, I am bothered by hearing very queer things.
- T F 124. I think Lincoln was greater than Washington.
- T F 125. My way of doing things is apt to be misunderstood by others.
- T F 126. In my home we have always had the ordinary necessities (such as enough food, clothing, etc.).
- T F 127. When I get bored, I like to stir up some excitement.
- T F 128. My plans have frequently seemed so full of difficulties that I have had to give them up.
- T F 129. During the past few years I have been well most of the time.
- T F 130. I do many things which I regret afterwards (I regret things more or more often than others seem to.)
- T F 131. I have had very peculiar and strange experiences.
- T F 132. I am easily downed in an argument.

- T F 133. I am in just as good physical health as most of my friends.
- T F 134. I find it hard to keep my mind on a task or job.
- T F 135. I would certainly enjoy beating a crook at his own game.
- T F 136. At times I feel like smashing things.
- T F 137. At periods my mind seems to work more slowly than usual.

## Appendix C

DDB Inventory (Revised)  
(G.F.K.)

Name \_\_\_\_\_

Date \_\_\_\_\_

We are interested in finding out your reaction or attitude toward your driving record. The following are some statements that have been given by other drivers in explaining their violations. You may find yourself agreeing with some of the statements, disagreeing with others, and being uncertain about others. Mark each statement in the left hand margin according to how you feel. Write "0" if you disagree with the statement; write "1" if you agree a little or to some extent; and write "2" if you agree very much with the statement. Please mark every statement.

- \_\_\_\_ 1. A person can be expected to violate traffic laws when he has serious problems on his mind.
- \_\_\_\_ 2. I don't think my driving record is so bad, and I've never had any serious accidents.
- \_\_\_\_ 3. I'll have to admit that I've been careless and negligent in my driving.
- \_\_\_\_ 4. I believe that since a good driver knows how to handle himself, it doesn't hurt to go over the speed limit once in a while.
- \_\_\_\_ 5. I don't think I should have been called in because a lot of people have worse driving records.
- \_\_\_\_ 6. I can honestly say that the traffic tickets I got were my own fault.
- \_\_\_\_ 7. Anyone who drives as much as I do is almost certain to pick up traffic tickets.
- \_\_\_\_ 8. I consider myself a pretty good driver and feel that in some cases I can judge how fast to drive better than the traffic signs.
- \_\_\_\_ 9. What it boils down to is that I haven't taken my driving seriously enough.
- \_\_\_\_ 10. I just don't plan well enough ahead so I end up speeding.
- \_\_\_\_ 11. I think I have some pretty good excuses for my driving record.
- \_\_\_\_ 12. I've been given tickets when I wasn't guilty, but it's either plead guilty or spend a lot of money on lawyers and lay off work.
- \_\_\_\_ 13. I've noticed that the police are more apt to give tickets to certain types of cars.
- \_\_\_\_ 14. I don't feel the few traffic tickets I have should cause such a fuss.
- \_\_\_\_ 15. I think that paying fines is enough punishment for traffic violations.
- \_\_\_\_ 16. I think that in some cases the police lay for certain drivers and give them tickets no matter how they drive.
- \_\_\_\_ 17. As I see it, I have some bad driving habits that I'll have to change.
- \_\_\_\_ 18. I guess I'm just the impatient type and drive too fast.

- \_\_\_19. I think that the police are often too strict in enforcing the traffic laws.
- \_\_\_20. Almost everyone violates the traffic laws, and I was just unlucky enough to get caught.
- \_\_\_21. My driving can stand a lot of improvement.
- \_\_\_22. It's my opinion that the speed traps they have today are unfair.
- \_\_\_23. I wouldn't have my record if I'd paid more attention to my driving.
- \_\_\_24. Highway safety is important, but I think the police should spend more time on other matters instead of spending so much time giving traffic tickets.
- \_\_\_25. Sometimes I wouldn't be able to get certain things done if I didn't drive fast.
- \_\_\_26. I must admit that I'm ashamed of my traffic record.
- \_\_\_27. The way some people drive, you have to violate the law in order to avoid accidents.
- \_\_\_28. Most of the time I obey the traffic signs, but some of them are not logical and don't make sense.
- \_\_\_29. If the law was enforced like it should be, a lot more people would get tickets, not just a selected few.
- \_\_\_30. My record may look bad, but I really don't drive that way.
- \_\_\_31. It's been my experience that the police and courts often work together, so you don't stand a chance even when you're not guilty.
- \_\_\_32. I've changed since my last ticket so my traffic record really doesn't apply to me.
- \_\_\_33. I think that tickets are just one side of the story, and don't really indicate what kind of a driver you are.
- \_\_\_34. It's kind of a blow for me to be here, but maybe that's what I need to make me more aware of my duties as a driver.
- \_\_\_35. I think the police should give some consideration to the person who uses his car to make a living.
- \_\_\_36. With all the highway deaths, the police have to crack down on violations, so you'll get no complaints from me.
- \_\_\_37. The cars of today are built safely for high speeds, and many of the traffic laws need to be changed to fit modern times.
- \_\_\_38. In the case of my record, I think it should be taken into consideration that I didn't know you could have your license taken away.
- \_\_\_39. When you get right down to it, I don't have any excuses for my record.
- \_\_\_40. I'm not trying to build myself up, but more than one person whose judgment I respect has complimented me on my driving.

## Appendix D

## Interview Rating of Defensiveness (Revised)

Name of Interviewee \_\_\_\_\_

Interviewer \_\_\_\_\_ Date: \_\_\_\_\_

This scale is an attempt to measure how defensive the examinee is in his reaction to his past driving record. The following are some examples of what might be considered "defensive" behavior: (a) offers excuses or rationalizations for his past driving behavior, (b) minimizes the seriousness of his record, (c) suggests that he was not guilty in certain instances. In some cases, the defensive examinee will argue with the examiner or resist the latter's explanations or suggestions. Accepting responsibility for one's past driving record would be the opposite of defensiveness. At the end of the interview, rate the examinee on the amount of defensiveness that he showed during the re-examination interview.

- \_\_\_\_\_ 1. Showed no defensive behavior. Completely accepted responsibility for his past driving record.
- \_\_\_\_\_ 2. Showed some indications of defensive behavior but in general accepted responsibility for his past driving record.
- \_\_\_\_\_ 3. Showed defensive and acceptance behavior to an almost equal degree.
- \_\_\_\_\_ 4. Showed defensive behavior mainly but accepted some aspects of his past driving record.
- \_\_\_\_\_ 5. Showed nothing but defensive behavior. Completely avoided accepting responsibility for his past driving record.

G. F. K.



## Appendix E

## Appendix E

Intercorrelations Among Scales (ES, A, K, D, CD)  
and with Other Variables (V, Age, Education)

	<u>ES</u>	<u>A</u>	<u>K</u>	<u>D</u>	<u>CD</u>	<u>IR</u>	<u>V</u>	Age	Educ.
<u>ES</u>		-.61**	.26*	-.18	-.11	-.02	.07	.26*	.26*
<u>A</u>			-.64**	.16	.06	-.16	.11	.10	-.04
<u>K</u>				-.32*	-.12	-.06	-.07	-.04	-.08
<u>D</u>					.83**	.33**	-.27*	.16	-.28*
<u>CD</u>						.17	-.22	.26*	-.21
<u>IR</u>							-.10	.04	.08
<u>V</u>								.21	.36**
Age									.20
Educ.									

\* Significant at the .05 level of confidence.

\*\* Significant at the .01 level of confidence.

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