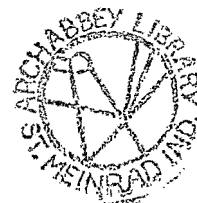


A STUDY OF PRIMARY SOCIALIZATION FACTORS
AND PERSONALITY TRAITS AS RELATED TO
CRIMINAL BEHAVIOR

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Abstract

Prisoner personality profiles and social history were correlated with the criminal behavior of offenders of crimes against objects and crimes against persons in an effort to establish significant relations between these variables. The research and statistical analysis enabled comparisons between father absence or presence and type of crime committed with specific personality traits. This analysis illustrated that there was no significant relation between criminal behavior and father absence or presence. Further, personality traits had no significant relation with the type of crime committed. However, the Mini Mult Personality Inventory revealed a prisoner profile which was dominated by elevations on the psychopathic scale. These results suggest that much of criminal behavior might be attributed to the development of a psychopathic personality.

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In the classical studies of Burt (1925), Healy and Bronner (1929), Reckless (1940), and Shaw (1929), criminal behavior is viewed as fundamentally a psychological problem involving personality variables. Psychological and psychiatric studies of young offenders by Birnbaum (1949), Bromberg (1937), Gregory (1935), Karpman (1937), Levy (1932), Louttit (1936), and Snyder (1931), stress the necessity of accepting delinquency as a function of personality traits, as do the series of studies of the Gluecks (1950). The researchers of Hathaway and Monachesi (1953) concluded that delinquency is but one of the activities of human beings, that it involves the same human tendencies present in other types of behavior, and that it is a reaction of the normal or abnormal personality to society with its restrictions, customs, and requirements.

In his study of criminal personalities, Lowrey ((1944)) reported that it is the affective reactions to conditions and situations which have significance for understanding the criminal offender. The researcher concluded that crime is proba-

bly most frequently due to the subtle effects of interactions between individuals and environment. The relationship between the home environment and the delinquent personality is well documented in the literature, particularly by Friedlander (1947), the Gluecks (1962), Gregory (1935), Hatwick (1929), Karpman (1937), Lowrey (1944), Louttit (1936), and Zakoski (1949). These studies also suggest that within the family and social environment the most important variables involved in the criminal personality are those which theoretically can be called social adjustment or self-confidence variables.

In another study Reckless, Dinitz, and Murray (1956) noted that "insulation" against delinquency on the part of potential delinquents may be viewed as a continuing process reflecting an internalization of non-delinquent values and conformity to the expectations of significant individuals. While their study suggested that a socially acceptable concept of self served as an insulator against criminality, the research did not indicate the manner in which the boy in a high delinquency area acquired his self-image. It may have been acquired by social definition of role from significant figures in his environment such as his mother or father, a relative, a teacher or a peer. According to Aichorn (1938), the normal child becomes socially adjusted because he can achieve satisfactory identification and relationship with a significant individual.

In a related study, Guze and Goodwin (1971) indicated

that consistency in the diagnosis of antisocial personality is related to the extent of the original elicited history of delinquent and criminal behavior. According to this study, inconsistency appears to be a manifestation of milder antisocial personality. The more severe and extensive the original history of the delinquent, antisocial, and criminal behavior, the more consistent and trustworthy was the report of this behavior after an eight to nine year study.

More recently, Amelang and Rodel (1970) have completed work pertaining to personality and attitude correlates with criminal behavior. They discuss methodological difficulties in correlating personality characteristics with criminal tendencies. Some of these difficulties have been avoided in studies with two groups of prisoners: one in prison for traffic violations, the other group for theft, breaking and entering, etc. Correlations with intelligence and personality tests showed no significant difference between the two groups with respect to Intelligence Quotient and extraversion. However the group involved in thefts, etc., showed a significant difference with greater readiness to take risks, tendencies to lie, and greater neuroticism.

Sumpter (1967) examined the role of family substitutes and personality adjustment of the criminal offender. The investigation included personality adjustment as reflected in the four main personality composites of anxiety, extraversion, tough poise, and independence; family interaction consisting

of father discipline, mother supervision, father affection, mother affection, and family surrogates (substitutes); and degree of criminal involvement. The pertinent findings of this study were: personal adjustment was positively correlated with family interaction, especially to the affectional aspects. Personal adjustment was not meaningfully related to parental surrogates with one exception. Though there were some definite indications that certain personality types were more likely to participate in criminal behavior, no one factor demonstrated a strong predisposition to criminality. It was generally observed that as the family became more dysfunctional, surrogates became more meaningful. There was no clear indication, with the exception of father affection, that the family interaction alone was significantly related to criminality.

In a series of studies (Hathaway & Monachesi, 1929, 1953; Hathaway, Monachesi & Young, 1960; Wirt & Briggs, 1959), a group of psychologists and sociologists at the University of Minnesota have studied the relationship of personality characteristics as measured by the Minnesota Multiphasic Personality Inventory (MMPI) to the rate of juvenile delinquency in large samples of both rural and urban children. The children were tested when they were in the ninth grade, and follow-up data in regard to delinquent activity have been collected after lapses of two, four, and five years. All of these studies have demonstrated that high scores on certain combinations of

the MMPI scales measuring tendencies toward psychopathic deviation, schizophrenia, and hypomania are associated with a rate of later delinquency in excess of the norm for the entire population. High scores on scales for social introversion, depression, and masculinity-femininity represent a lower rate of delinquency than that for the entire sample. These consistent findings, utilizing large samples, provide evidence that some aspects of personality are associated with later criminal behavior.

In another study Di Tullio (1969) proposed that statistics on subjects with abnormal personality traits among criminal groups vary according to the definitions of abnormality. Blackburn (1971) attempted to differentiate scales from the MMPI which provide for a focused assessment of impulsivity and sociability. These scales, which reflected the interaction of neuroticism and extroversion, were shown to reliably differentiate "normal" subjects from criminal offenders.

More recently Miller (1972) used personality profiles obtained from applications of the Kincannon Mini Mult, a shortened form of the MMPI, in attempting to establish a "prisoner profile." The results of the study revealed profiles with a prevalence of primary elevations on the psychopathic scale. Of those prisoners elevated primarily on the psychopathic scale, over sixty percent had secondary elevations on either the schizoid or mania scales with the former being more com-

mon. The remaining thirty-nine percent revealed secondary elevations that were approximately distributed in a uniform manner among the five remaining scales.

The literature suggests that the family situation, as perceived by the child, can greatly affect that child's behavior. It also indicates that a child's self concept may be significantly affected by his identification with some meaningful individual. Research has further suggested that various personality traits are more closely related to criminal behavior than others.

Consequently the purpose of the present study was to examine the relationships between personality traits, as measured by the Mini Mult Personality Inventory, and classes of criminal behavior. There was an additional interest in social history variables as related to criminal behavior and personality profiles. It was hypothesized that the personality profiles of criminals classified as having committed crimes against objects would differ from profiles of criminals classified as having committed crimes against people. In addition it was hypothesized that there would be a significant deviation in the personality profile of the criminal when compared to that of the norm of society. A significant correlation between social history and personality profiles was hypothesized, and consequently a significant relation between social history and criminal behavior was proposed to be established.

METHOD

Subjects

An interview and questionnaire were administered to inmates incarcerated at the Reception-Diagnostic Center, Plainfield, Indiana. The sample included approximately fifty inmates chosen at random. Subjects were both Caucasian and Negro males between the ages of 17 and 44, and who were both married and unmarried.

The Reception-Diagnostic Center was selected as the place of testing because this center receives all convicted and sentenced felons in the State of Indiana after trial. Hopefully the personality of the individual has not been altered by the prison institution at this point.

This maximum security institution was designed to orientate criminals in the State of Indiana immediately after conviction. The center then arranges for placement of these criminal offenders in institutions throughout the State. All the offenders in this institution are convicted felons. The charges included crimes against property, sexual crimes, and other crimes against persons.

Apparatus

Personality traits and socialization factors were the specific information desired in this testing and interviewing. Information concerning socialization history of the subject

was obtained from the Department of Corrections Classification Board Packet of each subject and from information gathered from the interview contained in the Appendix I. The purpose of the interview was to clarify any questions concerning the history of the subject. The Kincannon Mini Mult was used as an instrument to measure personality traits of the subjects. A copy of the Mini Mult is contained in Appendix II.

The facility for the interview was an office near the guard station on the range (floor) of the prisoner's cell. The prisoner was seated across a desk from the interviewer, and there were no distracting influences in the interview area.

Procedure

The testing and interviewing was completed during February and March of 1973. Each interview began with a short introduction as to the nature of the survey and an explanation as to how the particular individual was chosen. The subject was told that the research was being conducted for a thesis which was a graduation requirement of the college the interviewer was attending. Next, the subject was asked questions regarding social history, which was later checked against the individual's file for validity. The Kincannon form of the Mini Mult was then administered in interview fashion. Once this had been completed the interview was ended after establishing the hopes the subject may have in regard to the fu-

ture. Interviews lasted approximately thirty minutes.

RESULTS

The raw data are summarized in Appendix III. The statistical analysis employed to test the hypothesis that significant relationships exist between personality traits of two classes of criminal behavior consisted of t tests applied to eight criterion measures of the Mini Mult Personality Inventory. In other words, this test examined the differences in the personality of offenders of crimes against objects and crimes against persons. Other statistical analyses consisted of the examination of relationships between father absence or presence and offenders of crimes against objects and persons. This relationship was examined by means of contingency coefficients. The contingency coefficient test was also used to examine relationships between father absence or presence as it related to the triads (neuroticism, psychopathy, and schizophrenia) of the Mini Mult. A final contingency coefficient considered the relation of offenders of crimes against objects and crimes against persons with the triads of the Mini Mult. Finally a Chi-square goodness-of-fit test was utilized to determine where prisoner profiles significantly differed from an expected profile of the norm of society.

The Chi-square goodness-of-fit test yielded a value of 74.74 which was statistically significant at the .01 level.

As shown in Table 1, the prisoner profile was dominated by 53.3% of the total primary elevation being on scale 4 (social maladjustment). demonstrating that a significant difference among elevations on this test does exist. Of those prisoners elevated greatest on scale 4, further analysis revealed secondary elevations on scales 2 (discouragement), 8 (alienation), and 9 (irritability) as illustrated in Tables 1 and 2 and Figure 1.

Tables 1 and 2, and Figure 1

In addition to the examination of primary elevations with further examination of secondary elevations of those greatest on scale 4, a second Chi-square goodness-of-fit was employed to determine if there existed a characteristic second peak on the prisoner profile. The Chi-square value of 15.8 was not statistically significant at the .05 level. As shown in Table 3, 23.7% of the group revealed secondary elevations on scale 8 (alienation) and 21.1% had secondary elevations on scale 2 (discouragement) with the remaining scales receiving approximately equal representation.

Table 3

When reduced to the variables of offenders of crimes against objects and offenders of crimes against persons the

TABLE 1
OBSERVED PRIMARY ELEVATIONS

Scale	1	2	3	4	6	7	8	9
Frequency	0	8	1	21	1	1	3	3
Percentages	0.0%	21.1%	2.6%	55.3%	2.6%	2.6%	7.9%	7.9%

This table contains only primary elevations as observed on the Mini Mult Personality Inventory. The expected frequency for each scale is 4.75.

TABLE 2
OBSERVED SECONDARY ELEVATIONS ON SCALE 4

Scale	1	2	3	4	6	7	8	9
Frequencies	2	5	2	0	1	1	6	4
Percentages	9.5%	23.9%	9.5%	0.0%	4.8%	4.8%	28.6%	19.5%

This table contains secondary elevations of scores with a high primary elevation on scale 4 of the Mini Mult Personality Inventory. The expected frequency for each scale is 2.3.

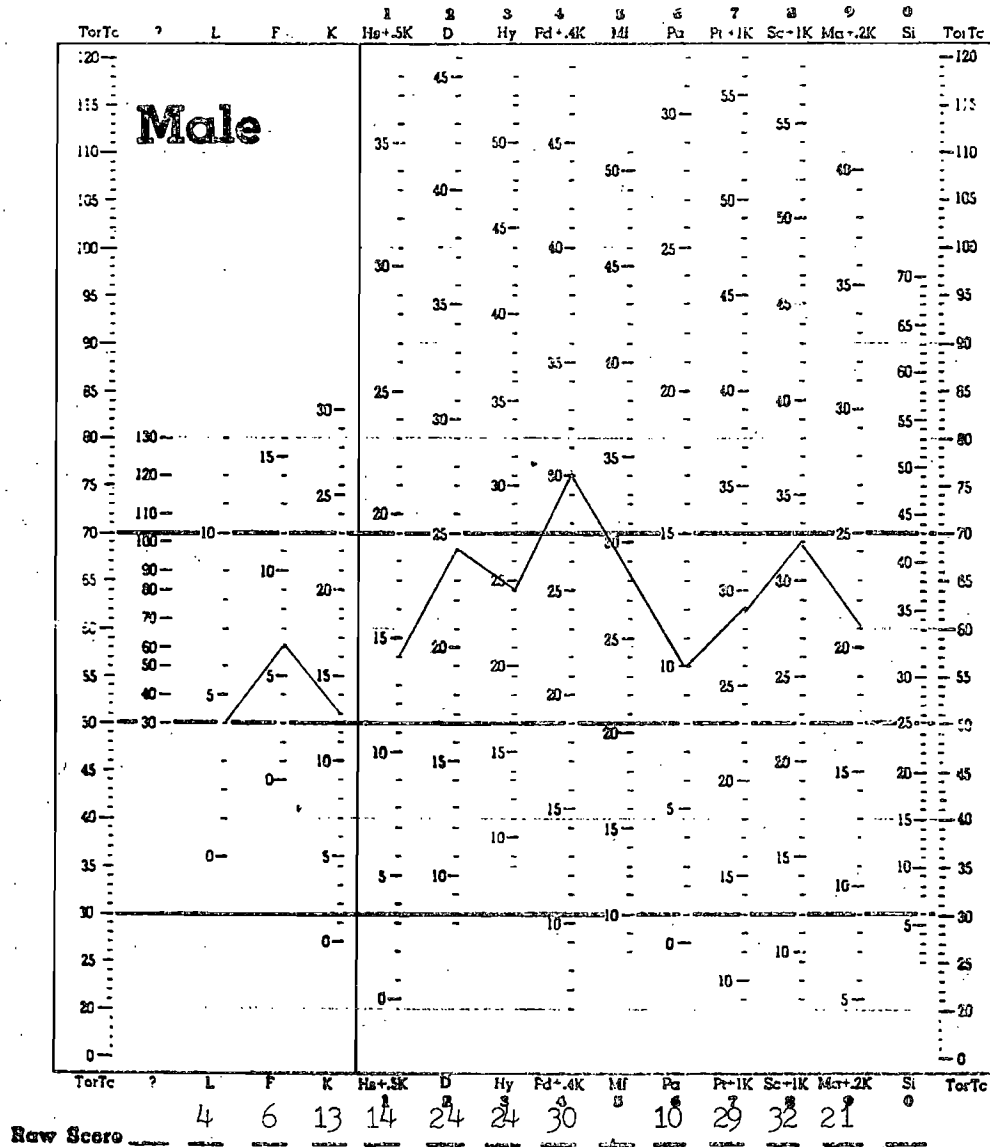
Clifford

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The Minnesota Multiphasic Personality Inventory

Starke R. Hathaway and J. Charnley McKinley

Scorer's Initials _____



MEDIAN SCORES ON THE MINI MULT



FIGURE I

TABLE 3
TOTAL OBSERVED SECONDARY ELEVATIONS

Scale	1	2	3	4	6	7	8	9
Frequencies	4	8	2	5	2	1	10	6
Percentages	10.5%	21.1%	5.3%	13.2%	5.3%	2.4%	23.7%	15.8%

This table contains the total secondary elevations as observed on the Mini Mult Personality Inventory. The expected frequency is 4.75.

results revealed no statistically significant difference as shown in Table 4. Both primary and secondary elevations revealed that there was no significant difference between the classifications of crimes against objects or crimes against persons in the prisoner profiles of these subjects.

Table 4

A significant correlation between social history and personality profiles was hypothesized, and consequently a significant correlation between social history and criminal behavior was also expected. In an effort to examine this latter relationship, information concerning father presence and absence was correlated with offenders of crimes against objects and offenders of crimes against persons. Contingency coefficients were implemented to show the extent of this association as shown in Table 5. The contingency coefficient of .01 was not statistically significant, demonstrating that the relation between father absence or presence with scores of offenders of crimes against objects and scores of offenders of crimes against persons was not significant.

Table 5

A second contingency coefficient was completed to determine the relation of father absence or presence as they re-

TABLE 4

OBSERVED PRIMARY AND SECONDARY ELEVATIONS
OFFENDERS OF CRIMES AGAINST OBJECTS AND PERSONS

Scale		1	2	3	4	6	7	8	9
Primary Elevation	Objects	0	3	1	11	0	1	3	2
		0.0%	14.3%	4.8%	52.4%	0%	4.8%	14.3%	9.5%
	Persons	0	5	0	10	1	0	0	1
		0%	29.4%	0%	58.8%	5.9%	0%	0%	5.9%

Scale		1	2	3	4	6	7	8	9
Secondary Elevation	Objects	3	5	1	3	0	1	6	2
		7.9%	13.2%	2.6%	7.9%	0%	2.6%	15.8%	5.3%
	Persons	1	3	1	2	2	0	4	4
		2.6%	7.9%	2.6%	5.3%	5.3%	0%	10.5%	10.5%

This table contains the observed primary and secondary frequencies of offenders of crimes against objects and persons on the Mini Mult Personality Inventory.

TABLE 5
CONTINGENCY TABLE

Crime	Objects	Persons	Total
Father Absence	12	7	19
Father Presence	9	10	19
Total	21	17	38

This table contains the results of a contingency study associating father absence or presence to types of crime committed.

lated to the triads (neuroticism, psychopathy, and schizophrenia) of the Mini Mult. The result of this analysis was a contingency coefficient of .04, which is not significant as shown in Table 6.

Table 6

A final contingency coefficient was used to determine the relation between the scores of offenders of crimes against objects and scores of offenders of crimes against persons with the triads of the Mini Mult. The results, which are contained in Table 7, proved not to be significant ($x^2 = .04$).

Table 7

Finally, a t test was applied to each MMPI scale comparing the groups of offenders of crimes against objects and offenders of crimes against persons. The results of these analyses were that there was no significant difference between the two groups at the .05 level.

DISCUSSION

An examination of the results revealed that these prisoners exhibited a profile dominated by elevations on the psychopathic scale. A person with a profile of this nature is described by Carson (1969) as generally characterized by angry

TABLE 6
CONTINGENCY TABLE

Personality	Triad 1	Triad 2	Triad 3	Total
Father Absence	3	14	5	22
Father Presence	6	8	2	16
Total	9	22	7	38

This table contains the results of a contingency study associating father absence or presence with the triads of the Mini Mult Personality Inventory.

TABLE 7
CONTINGENCY TABLE

	Triad 1	Triad 2	Triad 3	Total
Objects	4	11	6	21
Persons	5	11	1	17
Total	9	22	7	38

This table contains the results of a contingency study associating the type of crime committed with the personality of the offender as measured by the Mini Mult Personality Inventory.

disidentification with recognized conventions, an apparent inability to plan ahead, and a reckless disregard of the consequences of their actions. Furthermore, the psychopathic personality is shallow in his social relations with few strong loyalties of any kind.

These findings are consistent with the Hathaway and Monachesi (1953) research which also found that criminals scored high on the psychopathic scale of the MMPI. In addition, Miller (1972) had also demonstrated that the "prisoner profile" was dominated by psychopathic traits with secondary traits of schizoid and mania.

Further examination of the results discloses the failure of the criminal type classifications, crimes against objects and crimes against persons, to reflect any differences in prisoner profiles. There was also failure to demonstrate a relationship between the social history of the Ss and either criminal behavior or personality.

In conclusion, it is proposed that much of criminal behavior might be attributed to the development of a psychopathic personality. However, the present study failed to expose any factors which would predispose a person to develop a personality of this type. At this point, it may only be concluded that there appears to be a relationship between certain personality types and criminal behavior in general.

REFERENCES

- Aichorn, A. Wayward youth. New York: Viking Press, 1938.
- Amelang, M. & Rodel, G. Personality and Attitude Correlates with Criminal Behavior. Psychologische Rundschau, 1970 (July), Vol. 21(3), 159-179.
- Birnbaum, K. A. A court psychiatrist's view of juvenile delinquency. Annals of the American Political and Social Science, 1949, Vol. 26, 55-63.
- Blackburn, R. MMPI dimensions of sociability and impulse control. Journal of Consulting and Clinical Psychology, 1971 (August), Vol. 37(1), 166.
- Bromberg, W. & Thompson, C. D. The relation of psychosis, mental defect and personality type of crimes. Journal of Criminal Law, Criminology, and Police Science, 1957, Vol. 28, 1-6.
- Burt, C. The young delinquent. New York: Appleton, 1925.
- Friedlander, K. The psycho-analytic approach to juvenile delinquency. New York: International University Press, 1947.
- Glueck, S. & E. Delinquents in the making. New York: Harper, 1952.
- Glueck, S. & E. Family environment and delinquency. Boston: Houghton Mifflin Co., 1962.
- Glueck, S. & E. 500 Criminal careers. New York: Alfred Knopf, 1930.
- Glueck, S. & E. Spotting potential delinquents: can it be done? Federal Probation, 1956, Vol. 91, 7-13.
- Glueck, S. & E. Unraveling juvenile delinquency. New York: The Commonwealth Fund, 1950.
- Gregory, M. Psychiatry and problems of delinquents. American Journal of Psychiatry, 1935, Vol. 91, 773-781.
- Hathaway, S. R., Monachesi, E., & Young, L. A. Delinquency rates and personality. Journal of Criminal Law, Criminology, and Police Science, 1960, Vol. 50, 433-

Healy, W. & Bronner, A. Delinquents and criminals: their making and unmaking. New York: Macmillan, 1929.

Karpman, B. D. Crime and adolescence. Mental Hygiene, 1937, Vol. 21, 389-396.

Levy, J. A mental hygiene study of juvenile delinquents: its cause and treatment. American Journal of Psychiatry, 1932, Vol. 12, 73-142.

Louttit, C. Clinical psychology: a handbook of children's behavior problems. New York: Harper, 1956.

Miller, D. I. Prisoner personality profiles. An unpublished study, Central State Hospital, Milledgeville, Georgia, 1972.

Reckless, W. C. Child development. Boston: D. C. Heath and Co., 1940.

Reckless, W. C. The self-component in potential delinquency and potential non delinquents. American Sociological Review, 1957, Vol. 22, 566-570.

Reckless, W. C., Dinitz, S., & Murray, E. Self-concept as an insulator against delinquency. American Sociological Review, 1956, Vol. 21, 744-746.

Shaw, C. Delinquent areas. Chicago: University of Chicago, 1929.

Snyder, M. A. Comparisons of mental traits and attitudes of delinquent boys and girls. Journal of Juvenile Research, 1931, Vol. 15, 181-191.

Sumpter, G. R. A comparison of the common background factors in Negroid and Caucasian children who have been adjudicated delinquent by the age of eleven. Unpublished manuscript, Florida State University, 1965.

Sumpter, G. R. Religiosity and criminality. Research Study. Tallahassee: Florida Division of Corrections, Research and Statistics Section, 1967.

Writ, R. D. & Briggs, P. F. Personality and environmental factors in the development of delinquency. Psychological Monographs, 1959, Vol. 73, 485.

APPENDIX I

Name _____ Age _____ Race _____

Convicted of _____

Details of crime _____

Sentence for crime _____

Religion _____

Do you attend your church regularly _____

Highest level of education attained _____

Number of children at home during your childhood _____

Your rank in this number of children _____

During your adolescence were you often at home or did
you usually associate with a group of guys or a gang
_____Who was the "boss" in your home, father or mother _____
_____Did any one person greatly influence you while you were
growing up _____Have you ever used drugs other than for medical purposes

APPENDIX II

THE MINI MULT PERSONALITY INVENTORY

Do you wish you could be as happy as others seem to be?

Do you think a great many people exaggerate their misfortunes to gain the sympathy and help of others?

Do you sometimes get angry?

Are you definitely lacking in selfconfidence?

Are you troubled with your muscles twitching or jumping?

Much of the time, do you feel as if you have done something wrong or evil?

Are you happy most of the time?

Are some people so bossy that you feel like doing the opposite of what they request, even though you know they are right?

Are you being plotted against?

Will most people use somewhat unfair means to gain profit or advantage rather than lose it?

Do you have a great deal of stomach trouble?

Have you often been cross or grouchy without understanding why?

At times, have your thoughts raced ahead faster than you could speak them?

Is your home life as pleasant as that of most people you know?

Do you certainly feel useless at times?

During the past few years, have you been well most of the time?

Have you had periods in which you carried on activities without later knowing what you had been doing?

Do you feel that you have been punished without cause?

Have you ever felt better in your life than you do now?

Are you bothered by what others think of you?

Is your memory all right?

Do you find it hard to make talk when you meet new people?

Do you feel weak all over much of the time?

Are you troubled by headaches?

Have you had difficulty in keeping your balance in walking?

Do you like everyone you know?

Is anyone trying to steal your thoughts and ideas?

Do you wish you were not so shy?

Do you believe your sins are unpardonable?

A L F K 1 2 3 4 6 7 8 9

N				X	X	X		Y	Y	Y	
Y		N		X	X	X			N		
Y	N	N		X	X	X					
N				X	X	X		Y		Y	
N				X	X	X			Y		Y
N				X	X	X			Y	N	
Y				X	X	X		N	N	N	
				X	X	X			N	N	Y
N	Y			X	X	X		Y	Y		
Y		N		X	X	X			N	N	
N				X	X	X					
Y		N		X	X	X			N		Y
Y				X	X	X		N	N		
Y		N		X	X	X		Y		Y	
Y				X	X	X		N	N	N	
N	Y			X	X	X				Y	Y
N				X	X	X			Y	Y	Y
N		Y		X	X	X		Y	Y		
N		Y		X	X	X		Y	Y		
Y				X	X	X		N		N	N
Y		N		X	X	X		N	N		N
N				X	X	X		Y	Y		
N				X	X	X		Y	Y		
N	Y			X	X	X					
N	Y			X	X	X					
Y				X	X	X		N	N		
N	Y			X	X	X					

Do you frequently find yourself worrying about something?
 Have your parents often objected to the kind of people that you went around with?
 Do you gossip a little at times?
 Do you, at times, feel that you can make up your mind with unusually great ease?
 Are you troubled by your heart pounding and by a shortness of breath?
 Do you get mad easily and then get over it soon?
 Do you have periods of such great restlessness that you cannot sit long in a chair?
 Do your parents and family find more fault with you than they should?
 Does anyone care much what happens to you?
 Do you blame a person for taking advantage of someone who lays himself open to it?
 Are you full of energy, at times?
 Is your eyesight as good as it has been for years?
 Do you often notice your ears ringing or buzzing?
 Have you ever felt that someone was making you do things by hypnotizing you?
 Have you had periods in which you felt unusually cheerful without any special reason?
 Even when you are with people, do you feel lonely much of the time?
 Do you think nearly anyone would tell a lie to keep out of trouble?
 Are you more sensitive than most other people?
 Does your mind seem to work more slowly than usual at times?
 Do people often disappoint you?
 Have you used alcohol excessively?

A	L	F	K	1	2	3	4	6	7	8
			N	X	X				Y	
N			X	X			Y			
Y	N		X	X						
N			X	X						Y
N			X		Y	Y				
Y			X			N				
N			X			Y		Y	Y	Y
N	Y		X			Y				
Y	N		X							
			X		Y					
Y	N	N	X		N					
Y			X		N	N				
N			X		Y		Y	Y		
N	Y		X				Y	Y		
Y		N	X							
N			X			Y	Y			
Y		N	X							
Y		N	X							
N	Y		X			Y				

If the last question is answered yes, ask the following questions.

Have you ever felt "remorse" after drinking?
 Has your work efficiency decreased because of drinking?
 Is drinking harming your family in any way?
 Have you less self-control because of drinking?
 Do you get the inner shakes unless you continue to drink?

N	Y
N	Y
N	Y
N	Y
N	Y

APPENDIX III

Raw data from the Kincannon Mini Mult

Scale	L	F	K	1	2	3	4	6	7	8	9
Subject											
1	4	14	8	20	28	30	38	19	38	45	24
2	6	4	17	11	18	21	32	19	28	14	20
3	4	11	14	19	24	24	32	8	25	32	20
4	4	4	18	15	26	25	42	14	36	42	22
5	4	14	10	13	29	25	37	14	35	36	24
6	6	6	14	9	29	22	32	5	37	35	20
7	2	2	13	11	22	22	30	8	31	34	25
8	4	4	14	9	20	15	26	8	23	24	14
9	8	21	7	12	20	18	33	12	25	33	26
10	6	6	13	23	26	33	33	14	31	34	21
11	8	6	18	13	18	22	27	8	27	31	21
12	4	6	17	13	22	21	18	10	28	21	26
13	4	2	18	11	16	21	21	8	24	20	19
14	2	6	7	14	26	18	26	14	27	39	19
15	8	25	18	36	40	43	42	19	43	58	21
16	6	16	10	23	31	25	30	10	31	31	20
17	4	4	20	12	18	24	29	10	29	30	28
18	4	14	11	22	38	29	37	14	31	43	24
19	2	18	10	21	38	27	41	17	37	50	26
20	4	4	17	15	28	27	30	14	47	41	21
21	2	6	8	28	29	22	28	12	28	34	22
22	2	4	14	11	20	16	29	7	18	28	21
23	9	4	18	13	18	25	27	8	29	22	15
24	4	9	11	9	18	18	27	8	20	22	20
25	4	11	10	19	24	25	36	12	28	39	24
26	4	6	11	10	18	21	27	8	24	29	22
27	6	6	8	8	24	21	35	12	32	37	29
28	6	6	11	8	15	15	27	12	22	24	20
29	4	6	13	25	35	35	40	12	40	39	21
30	6	14	19	15	26	22	32	7	29	25	18
31	2	6	11	20	24	25	30	7	29	32	24
32	2	21	13	30	39	36	42	17	43	50	23
33	2	9	13	21	35	27	31	10	36	31	20
34	4	9	8	12	24	24	26	10	26	29	24
35	4	4	7	14	28	19	21	12	23	25	18
36	4	2	15	14	20	16	22	12	21	22	18
37	4	9	7	12	28	18	28	8	27	28	19
38	2	14	13	23	38	32	38	10	38	48	21

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