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GUARDED AND UNGUARDED RESPONSES TO SENTENCE COMPLETION
TESTS AMONG NORMAL ADOLESCENTS AND
JUVENILE DELINQUENTS

by

Mohammed K. Fazel

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

of

MASTER OF SCIENCE

in

Psychology

UTAH STATE UNIVERSITY
Logan, Utah

1967

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Mohammed Fazel

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ABSTRACT

Guarded and Unguarded Responses to Sentence Completion
Tests Among Normal Adolescents and
Juvenile Delinquents

by

Mohammed K. Fazel, Master of Science

Utah State University, 1967

Major Professor: Dr. Heber Sharp
Department: Psychology

This study was designed to test the responses of a group of juvenile delinquents and a group of normal adolescents to a sentence completion test. The test used was a modified form of Sack's Sentence Completion test in two forms--form A, first person stems and form B, third person stems. The hypothesis to be tested were (1) people project more in the third person, (2) the normal projects more, and (3) there would be no difference in projection on neutral items. The results bear out the three hypothesis. The sex scale, however, was an exception. This may be due to the deficiency of items on this particular scale.

(53 pages)

INTRODUCTION

In tracing the origin of the sentence completion test we find that it has its roots in the works of Ebbinghouse, Kelly and Traube (Goldberg, 1965) who used the method for measuring intellectual variables. In recent years, however, it has been used primarily as a device for personality assessment dating back to Payne (Goldberg, 1965) who is generally credited for being the first to use sentence completion tests as a method for personality assessment.

There is general agreement among psychologists using the sentence completion test that it is truly a projective test. If the projective hypothesis is tenable, it logically follows that a subject is more likely to reveal himself while talking about another person than when he is talking about himself.

This study originates partly from a remark made by Allport (1953) that the differences in the responses to sentence completion tests will be much greater in the maladjusted individual than in the well integrated one as the former has more to hide than the latter.

In order to test this and other related hypotheses, a modified form of Sacks sentence completion test was devised in two forms (first person and third person stems) and administered to a group of normals and a group of juvenile delinquents.

REVIEW OF LITERATURE

Goldberg (1965) traces the early beginning of the sentence completion test to the work of Ebbinghaus, Kelley and Traube at the turn of the century. These investigators mainly used it to measure intellectual variables. In recent years, however, it has primarily been used for personality assessment. A. F. Payne and A. D. Tandler (Goldberg, 1965) are usually credited for being the pioneers in using sentence completion tests for emotional insight.

Since then, sentence completion methods are enjoying increasing popularity. Few clinical test batteries are without sentence completion tests (Peshkin, 1963).

The sentence completion test is economical because it lends itself to group administration and flexible because the sentence stem can be changed to suit the situation. These qualities of flexibility and economy are to a large measure responsible for its popularity. Sundberg (1961) puts the sentence completion test second only to the MMPI among the group personality instruments. The flexibility and popularity have given rise to various forms of sentence completion tests, whose origin, however, are often ambiguous (Rhode, 1948; Stein, 1949).

The sentence completion test has been used in a large body of research for a variety of purposes (Goldberg, 1965). It has been used to assess a variety of attitudes. Attitudes toward school life (Costin and Eiserer, 1949), attitudes towards peers and parents

(Harris and Tseng, 1957) and attitudes towards career choice (Getzels and Jackson, 1960).

The sentence completion test has also been used for the prediction of achievement for specialized groups. Kelley and Fiske (1950) used it to predict the success of clinical psychology students in a graduate program.

The sentence completion test has also been used for assessing the differences between a variety of groups. McBrayer (1960) used it for assessing the differences in perception of the opposite sex by males and females. Farher (1951) used it to measure the national characteristics of the English and Americans.

The very flexibility which has been an asset in using sentence completion tests has also proved to be a liability. A majority of the tests used in these studies have been specifically made for the experimental situation. Its obvious value lies in its high content validity. But as Goldberg (1965, p. 15) points out, "The development of a systematic and parametric body of information relevant to any one sentence completion method has been retarded."

Several attempts, however, have been made to construct standardized forms of sentence completion tests. Some of the most widely used ones are: The Rotter Incomplete Sentence Blank (ISB) (1950), the Sentence Completion Test (Sacks and Levy, 1950), used by the present study, and a Structured Sentence Completion Test (Farer, 1950).

The flexibility or stem variation has usually been (a) either clarity or ambiguity of stem structure or (b) variations in the person of the stem, i.e. first or third person.

Stem structure

Nunnally (1959, p. 339) defines the structure of a sentence, "If there is an agreed-on public meaning for a stimulus, it is referred to as a *structured* stimulus."

According to this definition the structure is high if the response pattern is narrow. A sentence stem beginning with "I wish my mother" is more structured than "I wish" since the former is restricting the subject's response directly into areas predetermined by the investigator. Forer (1950) and Sack and Levy's (1950) tests are structured whereas Rotter's SIB (1950) is unstructured.

Structured stems have generally been subgrouped to elicit responses in specific areas. Forer's tests attempts to sample responses in the following areas: (a) interpersonal figures, (b) dominant needs, (c) environmental pressures, (d) characteristic reactions, (e) moods, (f) aggressive tendencies and (g) affective level. The items in Sack's test (1950) are similarly clustered with high content validity. The four clinical categories are (a) family, (b) sex, (c) interpersonal relationships, and (d) self-concept.

Rotter, on the other hand, has not constructed his SIB to test any specific area, rather it is designed as a group test for determining the general psychological adjustment of the individual.

It should be pointed out that the division here is not on the basis of the absence or presence of content, but on the extent of the content. Even the most unstructured sentence stem would not be contentless. Whereas the structured sentence stem channels the response into a predetermined area, the unstructured one has an equal

probability of eliciting response in any given area. Compare the various responses to "My mother" (structured) and "My" (unstructured).

Forer (1950) notes that structured sentences compel the subject to respond to predetermined areas even if they are emotionally unpleasant which he would avoid if the stem was unstructured.

Trites (1956) findings indicate that structured stems tend to elicit unequivocal responses. Similarly Peck and McGuire (1959) have shown that unambiguous responses are given to well defined sentence stems.

Person reference

The use of first person and third person stem is that a subject is more likely to reveal himself when talking about another person. It is further assumed that a person becomes more defensive when talking about himself. Not all test constructors agree with this.

Rotter and Sack and Levy use either neutral or first person stems. Forer, on the other hand, uses both first and third person stems.

Goldberg (1965) mentions a variation used by Trites et al. as a screening device for Air Force personnel. The cadets were presented with a stimulus. The stimulus was a card with the picture of an aviation cadet. The subjects were asked to complete the sentences "by writing what the cadet in the picture is saying."

In trying to resolve the importance of first and third person stem in eliciting responses of clinical importance, Sacks (1949) developed two forms of 60 stems which were identical except that one had first person stems whereas the other form was cast in the third person. Both the forms were administered to 100 neuropsychiatric

patients. Six of the seven psychologists who took part in the study preferred the first person form as concurring to a greater extent with their clinical impression.

But as Goldberg (1965) points out certain questions may be raised regarding the criterion used. It might very well be that the ratings were based on the more peripheral aspects of personality and that the concurrence between the first person stem and the rating is merely indicative of the fact that first person stems top the superficial layers of the personality whereas the third person stem samples deeper layers--it is more projective.

Sacks' findings are corroborated by Arnold and Walker (1957) that an important determinant of the response is the person reference of the stem. Two forms of Rotter's ISB were given to a group of 120 female college students. One was a self-reference form and the other was an other-directed form. The two forms correlated $r = .55$. The authors of this study conclude that the two forms are not interchangeable.

Cromwell and Lundy (1954) corroborate Sack's conclusion that first person stems are clinically more significant than third person. The subjects 60 V. A. neuropsychiatric patients were administered the two forms of a sentence completion test. Thirty-nine clinical psychologists made inferences from the sentence completions. Here again the clinicians found the first person stems more significant than the third person stems.

Another study conducted by Forer and Tolman (1952) reveal somewhat different results. The Forer structure sentence completion test was used. The clinicians used to assess the productivity of the stems showed no preference for either first or third person constructions.

Similarly a study conducted by Stricker and Dawson (1966) using Rotters SIB in first person and third person form shows no significant differences in the responses.

A study by Haufmann and Getzels (1953) on the other hand, does give some credence to the use of the third person reference stem. This study does not provide a direct comparison of the efficiency of first person versus third person stems. It tends to show that third person stems elicit self-revelatory responses.

Although the evidence which is limited tends to favor the first person construction, it is not conclusive.

Response evaluation

Basically responses have been subjected to either (a) formal analysis or (b) content analysis. Formal analysis refers amongst other things to use of personal pronouns (White, 1949) and verb/adjective ratio (Ellsworth, 1951).

More typical, however, of the treatment of sentence completion responses is content analysis. On the two extremes of this approach are impressionistic evaluation and objective evaluation. Although an objective approach seems desirable the use of the impressionistic approach is justified on the basis that clinically important factors do not lend themselves to an objective evaluation. For this very reason Sacks and Levy (1950) prefer the impressionistic approach.

In order to assess the degree of adjustment amongst blind subjects, Dean (1957) uses the objective approach of Rotters ISB. Finding it unable to discriminate, Dean decides in favor of a qualitative approach.

Table 1 shows the salient features of 50 sentence completion

studies. The utility of the sentence completion test as Figure 1 indicates (Goldberg, 1965, p. 38) "is related to the area under investigation." This method has not been valuable in measuring social perception related variables and academic achievement. This method shows only moderate success in measuring the psychological assessment of children. Its most fruitful results have, however, been in the assessment of psychological adjustment in adults. Although Rhodes (Table 1) study show validities of .79 and .82 when used for evaluating global personality variables, his methodology has been challenged by Goldberg (1965).

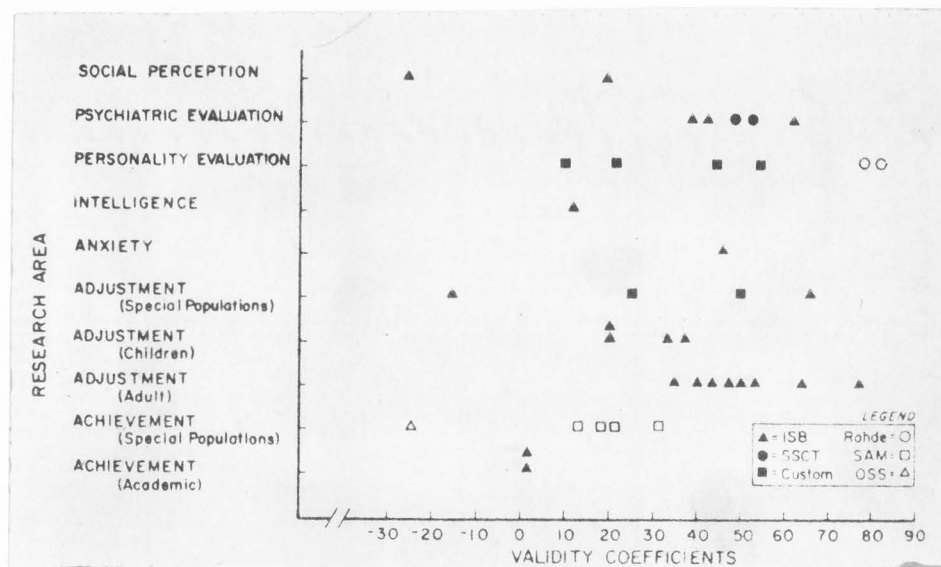


Figure 1. Distribution of validity coefficients abstracted from Table 1 and presented according to research area and S-C test used.

Table 1. A summary of 50 representative sentence completion validity studies.

Test	E	Method of Analysis	N	Ss	Criterion	Results
Forer	Meyer & Tolman (1955)	Related for attitudes toward parental figures	20	Therapy patients	TAT & interview data	r = N.S. (value of r not reported)
Forer	Carr (1956)	Rated for 4 affect categories	50	Male patients in a mental hygiene clinic	Rorschach variables	^a x ¹³ significant relationships at p < .10 or better
Forer	Stone & Dellis (1960)	Rated on Menninger Health-Sickness Rating Scale for amount of psychopathology	20	Schizophrenics	WAIS, TAT, Rorschach, DAP	Difference in amount of pathology between SCT & Rorschach; SCT & DAP p < .01
IBS ^b	Rotter & Willerman (1947)	Ratings on a 7 point scale of conflict using a scoring manual of examples Global clinical evaluation of disturbance - 148	200	AAF convalescent hospital patients	Evaluation of severity of disturbance based on tests, case history & interview data Presence or absence of psychiatric complaints	Tri-serial r = .61 bis r = .41 & .39
ISB	Morton (1949)	Rotter & Willerman's procedures	28	College students	Adjustment ratings Mooney Problem Check List Adjustment, therapy - non-therapy	r = .53 r = .40 bis. r = .50

^aHigh school form.

^bPreliminary form.

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
ISB	Rotter, et al. (1949)	Rotter & Willerman's procedures	82f ^c 214m	College students	Adjustment ratings	bis. r = .64, p < .01 bis. r = .77, p < .01
ISB	Barry (1950)	Rotter & Willerman's procedures	38	College students in counseling	Adjustment ratings	bis. r = .67, p < .01
ISB	Rotter & Rafferty (1950)	Rotter & Willerman's procedures	299	College freshmen	Ohio State Psychological Examination	r = .11
ISB	Rotter, et al. (1954)	Rotter & Willerman's procedures	48f 45m 70f 68m	High school students	Adjustment ratings Adjustment ratings Sociometric choice Sociometric choice	r = .37, p < .05 r = .20, N.S. r = .32, p < .05 r = .20, N.S.
ISB	Sechrest & Hemphill (1954)	Rated on 16 scales relevant to air crew adjustment	340	Aircrew members	Assumption of combat responsibility	t test; 4 of 16 scales sig. at p < .05 or better
ISB	Bieri, et al. (1955)	Rotter & Willerman's procedures	40	College students	Taylor MAS Accuracy of prediction of other S's MAS	r = .46, p < .01 r = .19, N.S.
ISB	Churchill & Crandall (1955)	Rotter & Willerman's procedures	188f 156m 44	College students College students Mothers	Application for psychol. couns. Application for psychol. couns. Adjustment ratings	bis. r = .42, p < .01 bis. r = .37, p < .01 r = .49, p < .01

^cWhere results are broken down by sex, N is reported by sex.

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
ISB	Berger & Sutker (1956)	Rotter & Willerman's procedures	199m 154f	College students	Academic achievement Academic achievement	r = .01, N.S. r = .01, N.S.
ISB	Dean (1957)	Rotter & Willerman's procedures	54	Blind Ss	Adjustment ratings	r = -.16, N.S.
ISB	Chance (1958)	Rotter & Willerman's procedures	52	College students	Prediction of other S's EPPS	r = -.26, < .10
ISB	Fitzgerald (1958)	Rated for n dependency using a scoring manual of examples	60	College students	Sociometric ratings of dependency Interview ratings of dependency	r = .25, p < .05 r = .28, p < .05
ISB	Jessor & Hess (1958)	Rotter & Willerman's procedures	41	College students	Rotter Level of Aspiration Board	White's test p < .10
ISB	Denenberg (1960)	Rotter & Willerman's procedures	40 21	College students	Kinesthetic maze	r = .39 tris. r = .46
Miale-Holsopple	Jenkins & Blodgett (1960)	Rated re-test improvement	92	Delinquent boys	Recidivism	x ² for 3 judges; p < .005, p < .01, p < .025
Miale-Holsopple	Jenkins (1961)	Schizophrenics	30	Schizophrenics	Improvement as measured by Lorr Multidimensional Scale	t test = p < .05

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
Michigan	Kelly & Fiske (1950)	"Blind" prediction of criteria based on global ratings	78	Clinical psychol. grad. students in VA training	Success in clinical psychology evaluated by clinical staff members	4 of 8 r's: $p < .05$ or better
Michigan	Hiler (1959)	Intensity ratings on 25 pers. variables Clinical impression to predict criterion	70 95	VA psychotherapy patients	Continuation in psychotherapy versus termination	71% agreement with criterion 68% agreement with criterion
OSS	Hardy (1948)	Scored for dominance, submission	25	Grad. students in course in nondirective counsel	Non-directiveness of counseling statements	Rho = .26, N.S.
OSS	Hadley & Kennedy (1949)	Modified Rotter & Willerman procedures (3 point scale)	157	College students	High versus low grade point averages	Critical ratio $p < .04$; of 12 X ratings 6 $p < .05$ or better
Peck	Peck & McGuire (1959)	Re-test changes rated positive/negative	69	College students	Lefkowitz Rigivity Scale Worchel Self-Activities Index McGuire Q-Check	$r = .11$, N.S. $r = -.02$, N.S., .67 $p < .01$ $r = .00$, .06, .19, .03 (all N.S.)
Rohde	Rohde (1946)	Ratings based on Murray's need system	50m 50f	High school students	Combined ratings of teacher judgments & interview data relative to Murray's need system	$\bar{r} = .82$, $p < .01$ $\bar{r} = .79$, $p < .01$

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
SAM	Trites, et al. (1953)	Socring manual used to rate 13 person- ality variables	100 413 539 639	Flight cadets	Success vs. failure in flight cadet training	bis. $r=.32$, $p<.005$ bis. $r=.21$, $p<.001$ bis. $r=.13$, $p<.001$ bis. $r=.18$, $p<.001$
SSCT	Sacks (1949)	Impressionistic rat- ings on 3 point scale for disturbance	100	VA neuro- psychiatric outpatients	Psychiatric adjust- ment ratings	Agree. on 8/15 variables, $p < .001$ (1st person form); agree. on 3/15 variables, $p < .001$ (3rd pers. form)
SSCT	Sacks & Levy (1950)	Ratings for distur- bance Interpretative summaries	100 50	VA neuro- psychiatric outpatients	Psychiatric ratings of disturbance Agreement with clinical findings	$r = .48$ to $.57$ 77% agreement
SSCT	McGreevey (1962)	Pooled rankings on 4 personality traits using TAT & SSCT	40	Student nurses	Ego-threatened vs. non-ego-threatened	r's for non-ego threat. group N.S.; 5/8 r's for ego-threat. group $p < .05$ or better
Stein	Locke (1957)	3 point scale of disturbance	100	Naval Personnel	Imprisonment vs. non-imprisonment	6/12 t tests $p < .05$
Stein	Howard (1962)	Rank ordering of 10 of Murray's needs	10	VA psychiatric patients	Rorschach & TAT	\bar{X} interjudge agreement between tests, $r = .05$, N.S.

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
Stotsky & Weinberg	Stotsky & Weinberg (1956)	Rated for positive or negative tone relative to 9 ego-strength dimensions	80 80	Psychiatric patients	Work performance ratings Work progress ratings	$X^2 p < .05$ or better on 8/9 vars. $X^2 p < .05$ or better on 8/9 vars.
Stotsky & Weinberg	Stotsky (1957)	Rated on 9 ego-strength dimensions Positive treatment outcome Negative treatment outcome	32 39 39	Normals I Schizophrenics II Schizophrenics III	Subject characteristics	I & II differed ($p < .05$) on 2/9 vars.; I & III differed ($p < .05$) on 8/9 vars. (X^2)
Stotsky & Weinberg	Wolkon & Haefner (1961)	Stotsky & Weinberg procedures	48	Psychiatric patients	Behaviorally improved groups vs. unimproved group	t test: on 6/8 variables $p < .10$ or better
Custom	Wilson (1949)	Rated for grammar, spelling, and other formal aspects	22	High school students	Maladjusted children vs. well-adjusted children	no significant relationships observed
Custom	Cameron & Margaret (1950)	Frequency of response "scatter"	45	College students	Card-sorting test Guilford Inventory Guilford-Martin Inventory	$r = .08$ to $.14$ (all N.S.) 2/10 r 's $p < .05$ 1/10 r 's $p < .05$
Custom	Rosenberg (1950)	Rated for attitudes toward parents	72	Psychoneurotic patients	Therapists' judgments of patients attitudes	58% agreement on attitudes toward father; 69% agreement of attitudes toward mother

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
Custom	Harlow (1951)	Scored for dominance-submission on a 4 point scale	40	Weight-lifters & non-weight lifters	Weight-lifters vs non-weight-lifters	7/11 <i>t</i> tests $p < .05$
Custom	Lazarus et al. (1951)	Rated for expression of hostility and sexuality	35	Psych. patients	Percept. acc. of hostile & sexual stimuli	$r = .45, p < .01$; $r = .55, p < .01$
			25	Repressors & Intellectualizers	Repressors vs. intellectualizers	<i>t</i> test $p < .05$
Custom	Cass (1952)	Rated for parent-child conflict using a scoring manual of examples	42	Well-adjusted & maladjusted children	Well-adjusted vs. maladjusted children	<i>t</i> test $p < .001$
Custom	Kimball (1952)	Rated for attitude toward father Rated for aggression	117	Prep school students	Academic under-achievement vs. normal achievement	Critical ratio $p < .05$ (father); Critical ratio $p < .01$ (aggression)
Custom	Dorris et al. (1954)	Rated for ego-threat, passivity and masculinity	21	College freshmen	High vs. low authoritarians	12/16 hypotheses supported at $p < .05$ or better (<i>t</i> test)
Custom	Zimmer (1955)	Prediction of criterion based on clinical impression	73	AAF crew members	Sociometric rankings on 8 personality variables	$r = .10, .10, .21$ (all N.S.0)

Table 1. Continued

Test	E	Method of Analysis	N	Ss	Criterion	Results
Custom	Burwen et al. (1956)	Rated on 5 point scale of superior-subordinate cluster	312	Air Force Cadest	Test of leadership knowledge Superior-subordinate cluster $r = -.45$ $p < .001$	$r = .27$, $p < .001$ $r = .32$, $p < .001$ Scale of alienation
Custom	Walter & Jones (1956)	Ratings on a 4 point scale of positive and negative attitudes	33	Psychiatric patients	O.T. ratings of behavior	$r = .50$, $p < .01$
Custom	Rychlak et al. (1957)	Ratings of inclusion with 10 personality categories based on scoring manual	18	Japanese-born college students in USA	Social adjustment ratings based on interview data	6/10 r's $p < .05$ or better
Custom	Willingham (1958)	Rated for acceptance of environment	164	Naval Aviation Cadets	4 morale tests	\bar{r} with 4 tests = .27
Custom	Ebner & Shaw (1960)	Rated for activity-passivity	48	Psychiatric patients & normal Ss	Psychiatric patients vs. normals	t test $p < .05$
Custom	Efron (1960)	Rated for suicide potential	92	Psychiatric patients	Expression vs. non-expression of suicidal thoughts	Correct identification = 43% & 30% (both N.S.)

Source: Goldberg, 1965.

SOME JUSTIFICATIONS FOR USING THE SENTENCE COMPLETION

TEST AND ITS STEM VARIATION

In the review of the literature mention has already been made of the two assets, flexibility and economy. Nearly all those who have worked with this technique accept it as a projective device.

Carr (1954) by pointing out the lack of congruity between the data derived from different projective techniques points to an interesting answer. He proposes the "levels hypothesis." Stated simply this approach envisages personality as arranged at various levels of psychic functioning and organization. Different tests tap different levels. Where do we put the sentence completion test? Which level of personality does it tap?

The theoretical rationale underlying projective techniques was explicitly made by L. K. Frank (1948). In short he states that, when a subject is made to impart meaning or order to an ambiguous stimulus complex, his response is a "projection" which represents his "feelings, urges, beliefs, attitudes, and desires. . . ." (Frank, 1948, p. 66).

Haufmann and Getzels (1953, p. 290) state: "The test elicits materials from a range of levels but the bulk of it being fairly close to awareness." Fitzgerald (1958) accepts this and further points out that, its lack of "depth" is in no way indicative of its lack of value. He even asserts that when certain inferences about overt behavior are to be made, it may be more useful than the TAT.

Whether one accepts the levels hypothesis or not, many theorists

agree that the sentence completion test elicits material less dynamic than tests like the Rorschach and TAT. The sentence completion test as Table 1 shows, has been well validated in many areas, often better substantiated than the TAT or the Rorschach. It is an acknowledged fact that both reliability and validity tend to vary inversely with depth.

Ostevweil and Fiske (1956) and Fiske and Rice (1955) found that intra individual variability in responses to sentence completion tests occur. They found that on retest "the great majority" of responses was changed to some extent.

Fiske and Buskirk (1959) pose the question that if the manifest content changes so markedly, does the personality picture inherent in the protocol also change from one time to the next, or does the same picture emerge from two protocols even though their manifest content is different.

Among 84 companions they found that in 25 per cent of the cases, the interpretation of the protocol agreed better with interpretations for other cases than with those of the same person. Fiske and Buskirk (1959, p. 178) conclude "Thus a single protocol may be an insufficient basis for an interpretation that differentiates one person from other people." The test retest period had an interval of one month.

HYPOTHESES TO BE TESTED

Hypothesis 1

People show projection in their responses to sentence completion tests with third person stems.

Hypothesis 2

The abnormal projects more than the normal.

Hypothesis 3

No appreciable differences in the response of the two groups (normal and abnormal) will be found when the sentence stems have neutral items.

METHOD

Subject

Thirty male juvenile delinquents who were full time residents of the Utah Industrial School formed one group. Their age ranged from 14 years to 18 years. They were subdivided into two groups of 15 each. The two subgroups shall be called DLab and DLba.

The other group of 30 normal males was taken from the Logan Junior High School, Logan, Utah. Their age group was 14 to 15 years. Like the delinquent group they were subdivided into NLab and NLba. During the administration of the test, three subjects from group DLab became overtly hostile and refused to finish the test. As a result the score of three subjects from group NLab had to be discarded in order to balance the two scores. These three subjects in group NLab had the same number as the three unfinished ones from group DLab.

Instruments

Test. Sack's Sentence Completion test (Sacks, 1950) was modified and administered in two forms, A and B. The two forms were almost identical except that Form A was "self-reference" with first person stems and Form B was "other reference" with third person stems e.g. Form A: I think most girls . . . , Form B: John thinks most girls

The test was designed for personality assessment in the following five areas.

1. Family
 - a. attitude towards mother 3 stems
 - b. attitude towards father 3 stems
 - c. attitude towards family unit 3 stems
2. Sex
 - a. attitude towards women 3 stems
3. Interpersonal relationship
 - a. attitude towards friends and acquaintances 3 stems
 - b. attitude towards superiors at work or school 3 stems
 - c. attitude towards people supervised 3 stems
 - d. attitude towards colleagues at work or school 3 stems
4. Self concepts
 - a. fears 3 stems
 - b. guilt feelings 4 stems
 - c. attitude towards past 3 stems
 - d. attitude towards future 3 stems
5. Neutral items 3 stems

Movie. A 16 mm movie of five minutes duration was prepared about the life of an imaginary figure called John. Factors dealing with family, sex, interpersonal relationship and self-concept comprised the script of the movie (see Appendix B). Since the movie was to be used as a projective technique, the players were told to keep their faces expressionless. During the actual showing of the movie a thin polythene sheet was kept over the lense so as to make the image on the screen difuse and ambiguous.

Interpretation and scoring. The scoring system proposed by Sacks (1950) was adopted. Briefly it consists in taking the relevant responses for each item (i.e. the three stems for attitude towards mother) and treating it as a constellation. It is an impressionistic method of scoring. The scale is:

- 2 - Severly disturbed. Appears to require therapeutic aid in handling emotional conflicts in this area.
- 1 - Mildly disturbed. Has emotional conflicts in this area, but appears able to handle them without therapeutic aid.
- 0 - No significant disturbance noted in this area.

The degree of adjustment as reflected in Figures 2 through 6 is directly proportionate to the height of the columns on score unit 0 and inversly proportionate to score unit 2 for both groups (N and L) and both forms of the test (AEB).

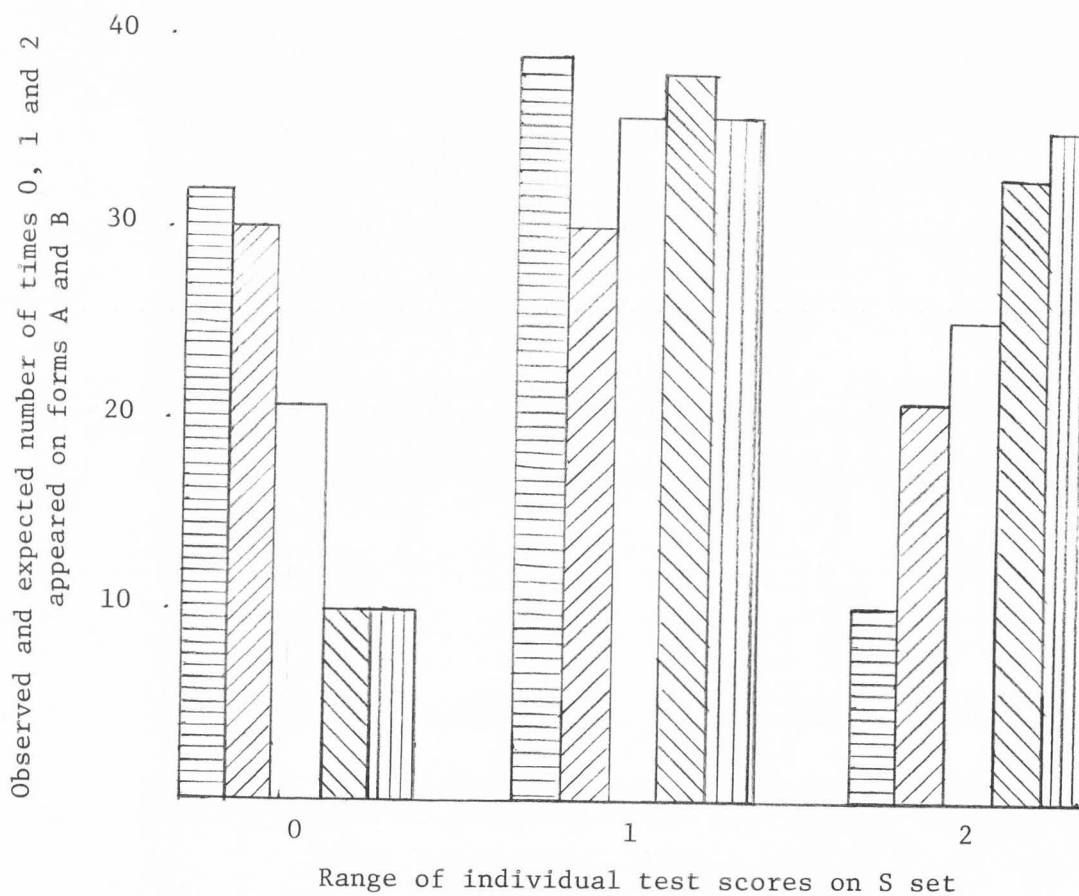
Since the scoring is impressionistic, only the extreme score units 0 and 2 were taken into account. No attempt has been made to interpret score unit 1. As this reflects ambivalent and border line responses, its elimination decreases the errors inherent in this method of scoring.

Procedure. Group DLab completed Form A, saw the movie and then took Form B.

Group DLba saw the movie, completed Form B and then completed Form A.

In order to produce a free responding situation the subjects were assured that only the experimenters would read their responses. They were also urged to put down the first thing that came to their mind. A running commentary by the experimenter accompanied the movie.

Score Unit	Aggregate Score				Expected Score
	Form A		Form B		
	Nor.	Del.	Nor.	Del.	
0	32	30	10	10	20.5
1	39	30	36	38	35.7
2	10	21	35	33	24.8



χ^2 DF
39.33 7

Highly Significant
 $p < .01$






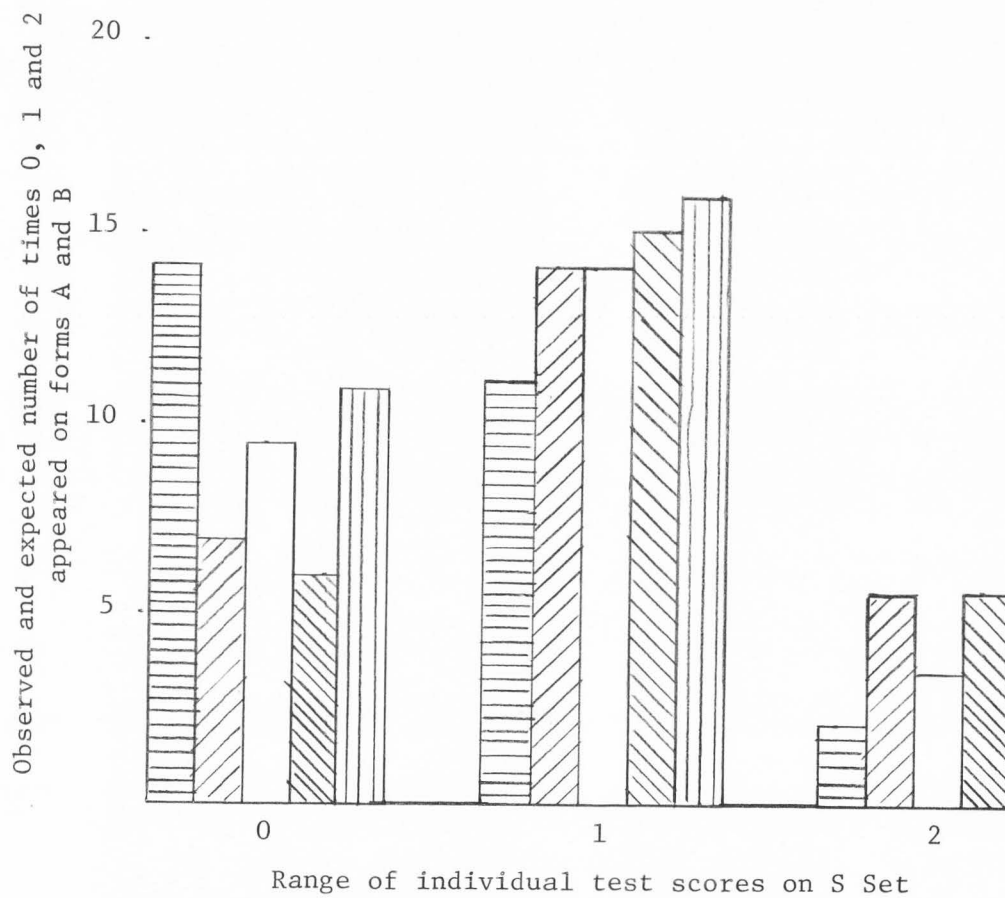
Normal Form A 
Normal Form B 
Expected 
Delinquent Form A 
Delinquent Form B 

Figure 2. Family

Score Unit	Aggregate Score				Expected Score
	Form A		Form B		
	Nor.	Del.	Nor.	Del.	
0	14	7	11	6	9.5
1	11	14	16	15	14.0
2	2	6	0	6	3.5



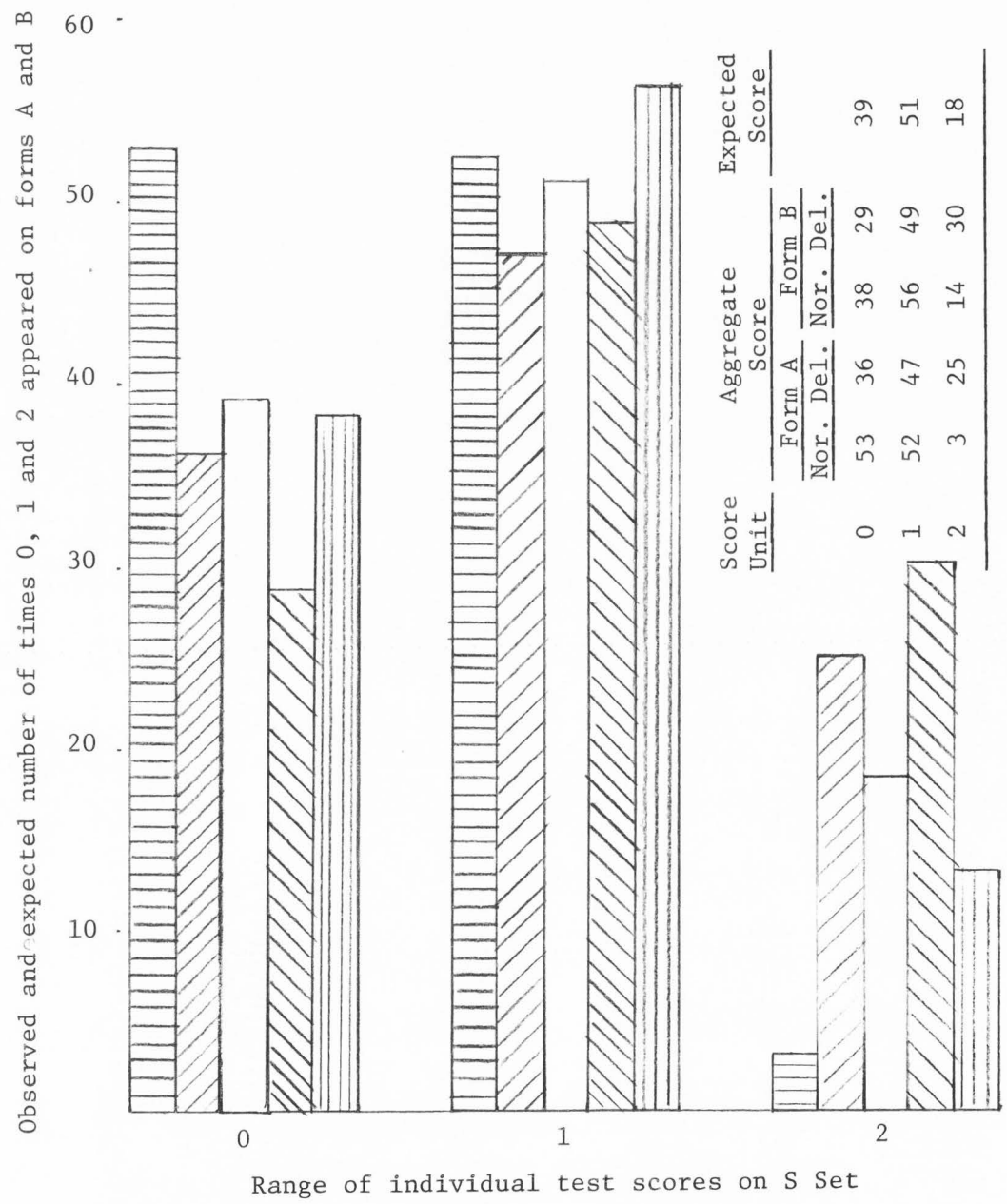
χ^2 DF
13 7

Not significant

Normal Form A
Normal Form B
Expected
Delinquent Form A
Delinquent Form B



Figure 3. Sex



χ^2 DF
 32.9 7
 Highly significant
 p < .01

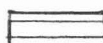
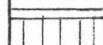
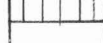


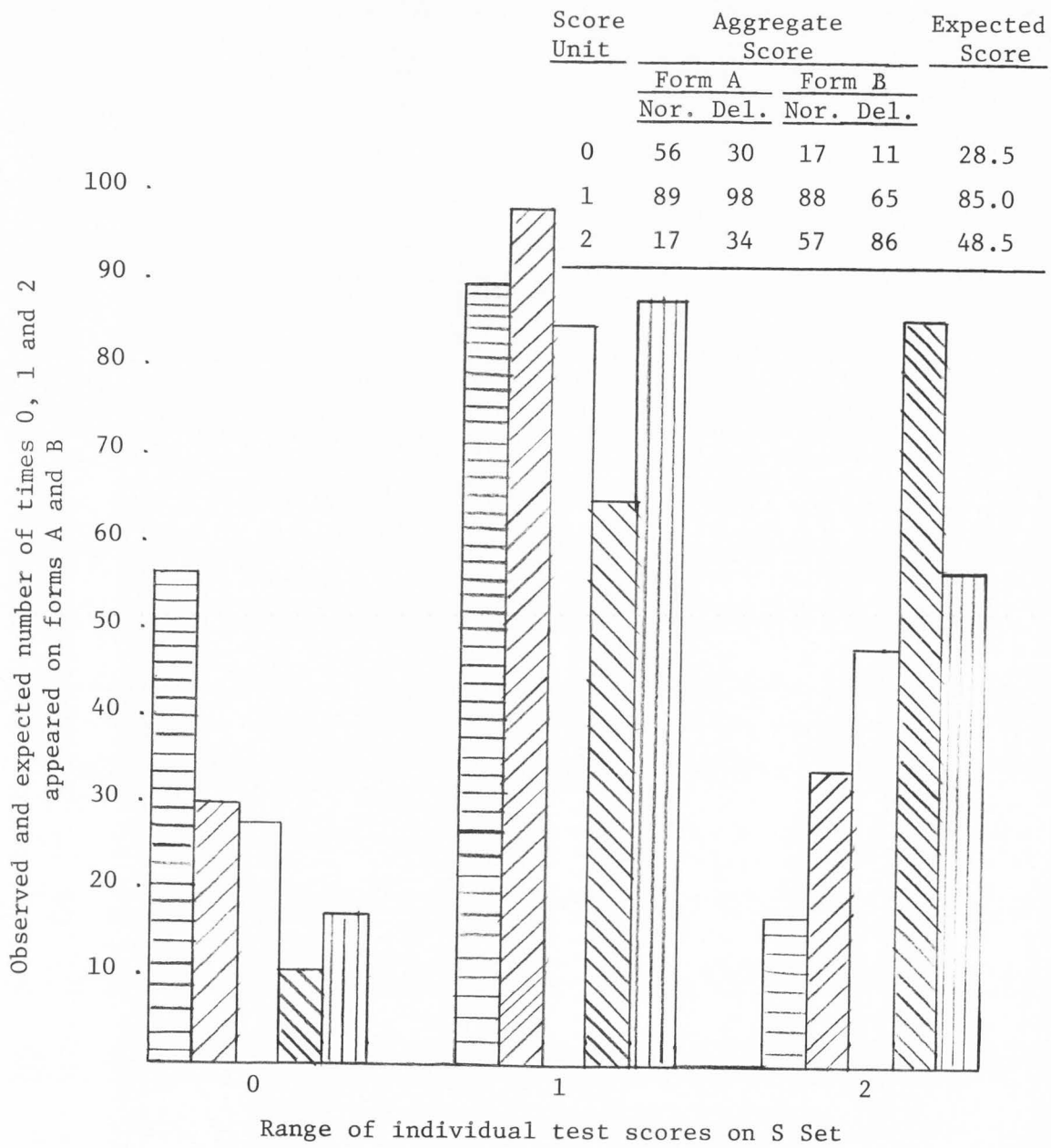
Normal Form A 
 Normal Form B 
 Expected 
 Delinquent Form A 
 Delinquent Form B 

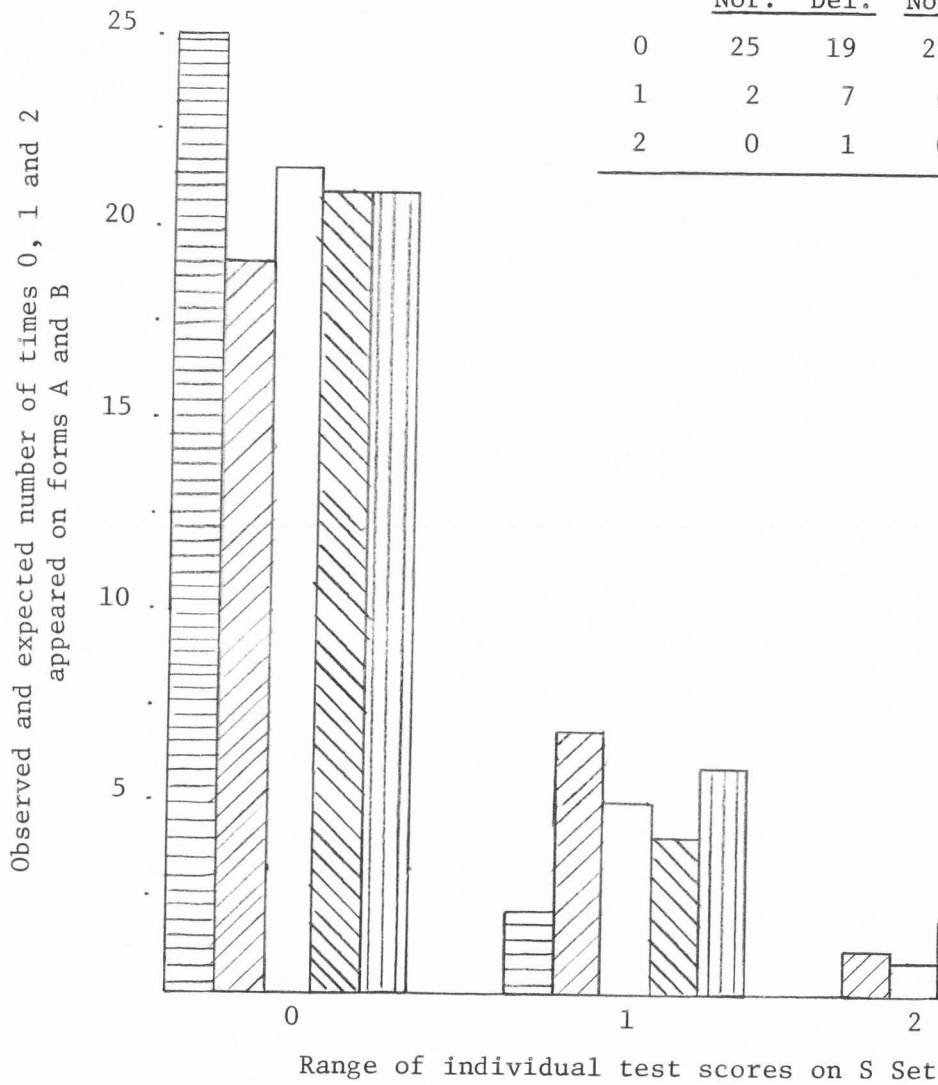
Figure 4. Interpersonal relationship



χ^2 DF
 104.3 7
 Highly significant
 p < .01

Normal Form A
 Normal Form B
 Expected
 Delinquent Form A
 Delinquent Form B

Figure 5. Self concept



Score Unit	Aggregate Score				Expected Score
	Form A		Form B		
	Nor.	Del.	Nor.	Del.	
0	25	19	21	21	21.5
1	2	7	6	4	4.75
2	0	1	0	2	.75

X^2 DF
7.65 7

Not significant

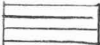
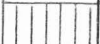

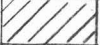
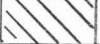
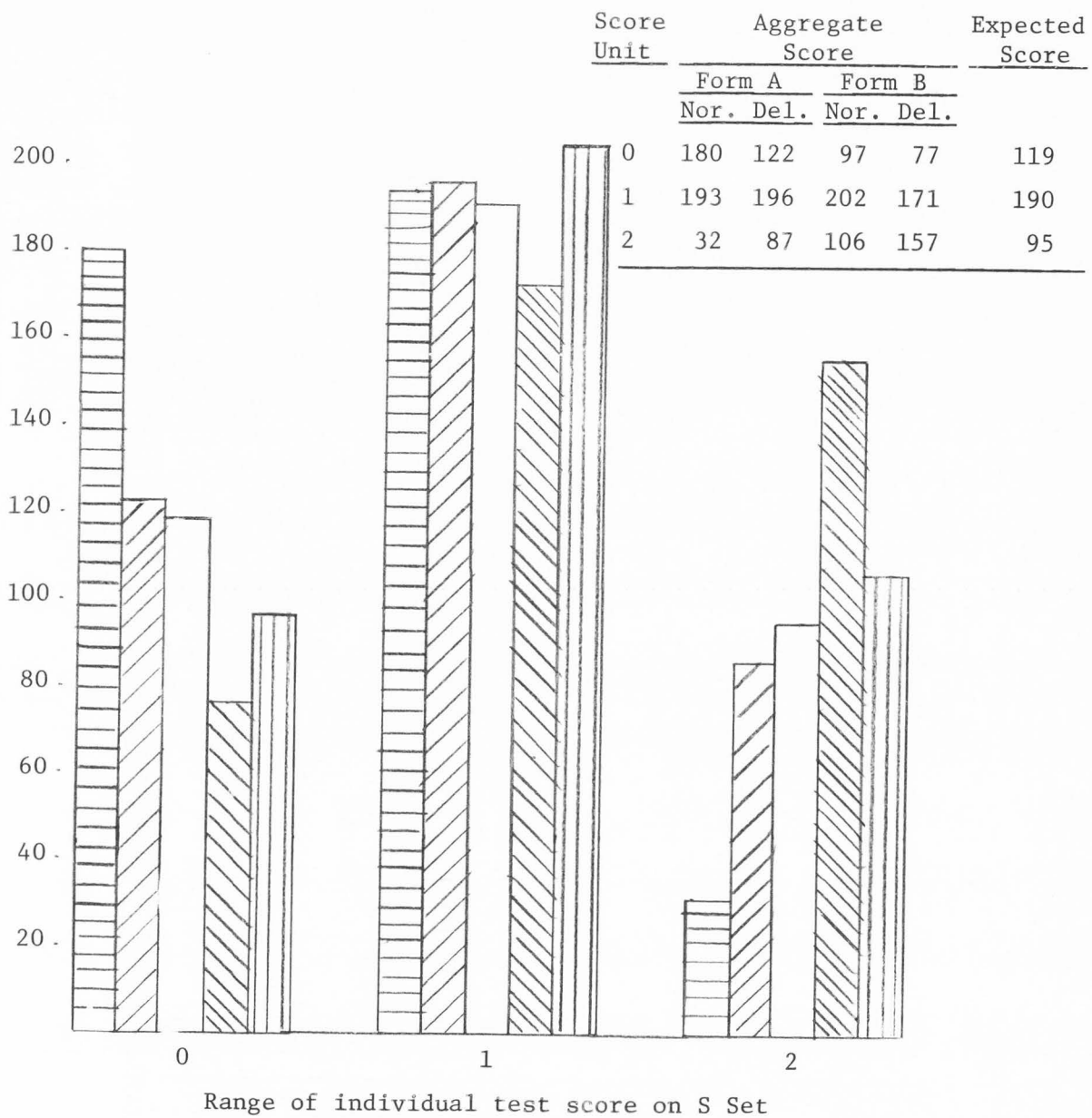
Normal Form A 
 Normal Form B 
 Expected 
 Delinquent Form A 
 Delinquent Form B 

Figure 6. Neutral Items



χ^2 DF
136.8 7

Highly significant
 $p < .01$

Normal Form A

Normal Form B

Expected

Delinquent Form A

Delinquent Form B

Figure 7. Sum of five categories: family, sex, interpersonal relationship, self concept, and neutral items.

RESULTS

As Table 2 indicates with the exception of sex and neutral items the X^2 of all the other categories is highly significant.

Scoring system: 0 = no disturbance (desirable)

1 = slight disturbance

2 = acute disturbance (undesirable)

Table 2. Summary of results and total chi square.

	X^2	DF	Significance	
Family	39.33	7	p .01	see Fig. 2
Sex	13.00	7	not significant	see Fig. 3
Interpersonal relationship	32.90	7	p .01	see Fig. 4
Self-concept	104.30	7	p .01	see Fig. 5
Neutral items	7.60	7	not significant	see Fig. 6
Aggregate of above categories	136.87	7	p .01	see Fig. 7

Family

In this category both N and D groups (see Figure 2) scored significantly higher on Form A (first person) than on Form B (third person). On the 0 score, N and D have identical scores on Form B. The N group scored slightly higher on Form A. On score 2 the position is reversed, with both groups scoring higher on Form B than on Form A.

The hypothesis appears to be borne out here that people project undesirable characteristics in the third person. The second hypothesis that the delinquent projects more is also statistically significant. As Table 3 indicates there was no statistical difference in family between the class and their scores when the forms are not taken into account. Statistical differences only arise when the forms are taken into account.

Table 3. Summary of chi square on class (N and D) and score (0, 1, and 2).

	X ²	DF	Significance
Family	1.21	2	not significant
Sex	11.00	2	p .01
Interpersonal relationship	25.09	2	p .01
Self-concept	20.47	2	p .01
Neutral items	3.33	2	not significant

Sex

On score unit 0 (see Figure 3) the N group scored higher on both forms, and had no score on score unit 2. The D group had nearly equal scores on score unit 0 and identical scores on score unit 2 on both the forms.

Interpersonal relationship

On score unit 0 (see Figure 4) the N group had a higher score on both the forms. Whereas the D group scored higher on both the forms (with the form B column higher) on score unit 2. On the 0 unit score both the groups scored higher on form A than form B. The difference

being that the N group scored higher than expected and the D group scored less than expected. On score unit 2 both the groups showd projections, but the delinquent deprecates himself on both forms and scored higher than expected. The N group scored less than expected on both forms.

Self-concept

On score unit 0 (see Figure 5) the N group scored higher on both forms. On form A the difference is very significant. The score for both the groups on form B is less than expected. On score unit 2, the D group scored higher on both forms with a very high score on Form B and a less than expected score on Form A. Both hypothesis A and B are borne out here.

Neutral items

Neither groups on score unit 1 indicated a significant difference. On score unit 2 the N group had no scores with the delinquent scoring 1 and 2 on forms A and B respectively. This bears out hypothesis C.

The sum of the above five categories

On score unit 0 both groups scored higher on Form A than on Form B with group N scoring appreciably higher on Form A. On score unit 2 both groups scored higher on Form B with the D group having an appreciably higher score on Form B. The results bear out all the three hypothesis.

DISCUSSION AND SUMMARY

Discussion

With the exception of sex scale, SSCT, the results seem to bear out the first two hypothesis in general. The nonsignificance of the chi square on the neutral scale also bears out the third hypothesis.

Although the results show that the sex item perception of the two groups is not significantly different, the fact that unlike the rest of the scales, the sex scale has only three stems, should be taken into account. The non-significance could very well arise from this small number of stems indicating an inadequacy of the instrument rather than the absence of any difference. Further evidence is lent to this view by the fact that, although both Table 2 and 4 indicate non-significance in sex, Table 3 shows a statistical significance. Here a significance arises when only class and score are taken into account.

Table 4. Summary of chi square on Form (A and B) and Score (0, 1, and 2).

	X ²	DF	Significance
Family	35.50	2	p .01
Sex	1.35	2	not significant
Interpersonal relationship	6.83	2	p .05
Self-concept	76.54	2	p .01
Neutral items	.43	2	not significant

The marked difference of both N and D (D is more pronounced), on score unit 2 on the family scale clearly indicates the degree of dissatisfaction in the family area of both the groups. In the family scale we find the difference in responses of the two groups on form B (third person) to be less than the other significant scales. This approximation of responses on form B may be attributed to the tendency of some of the members of the D group to give more favorable responses on form B than form A. It is assumed that these individuals saw "John" better off in family relationships.

On the interpersonal scale the normal group shows adjustment by scoring on score unit 0 higher than expected on form A and near expected on form B. On score unit 2 this same group scores lower than expected on both forms which again is indicative of adjustment. The D group on the other hand shows maladjustment by scoring less than expected on score unit 0, and more than expected on score unit 2 on both the forms.

It is in the area of self-concept that maladjustment of the D group stands out. As Figure 5 shows the difference between the scores of the two forms on score unit 2 is the largest of all the other scales. This difference is true of both the groups. For the D group however, it is highly pronounced.

The results indicate that there is a perceptual difference between the two groups as reflected by their responses to the sentence completion test. This is essentially in agreement with some of the studies cited in the Review of the Literature (Table 1).

The results not only indicate a difference in the responses of the groups but also differences in the same group on the two forms

(first and third person stems). This is in concurrence with the results obtained by Haufmann and Getzel (1953), Cromwell and Lundy (1954) and Sacks (1949).

This perceptual difference arising on the two forms may well be attributed to the "levels hypothesis" as advanced by Carr (1954, 1956). Carr conceptualizes personality as functioning at different levels. It may be assumed that the first person stem taps material fairly close to awareness, while the third person stem elicits responses further removed from awareness. But, as Fitzgerald (1958) points out, the less deep test is not necessarily the less valuable one. One does not substitute the other, they supplement each other.

One of the many responses which support this assumption was given by one of the normal subjects. In response to the first person stem, "In giving orders to others" he wrote ". . . I feel guilty (guilty)." But when the same sentence was cast in the third person, "In giving orders to others he", the subject responded ". . . he was mean." Guilt is mentioned in the first person but it is not recognized that it is the meanness in him which causes the guilt.

Another reason for the perceptual difference on the two forms may be due to the degree of volition in the responses. The first person stem with its apparent relationship to the subject elicits responses which the subject is willing to give. The third person stem, on the other hand, being more dynamic (more projective) elicits responses which the subject cannot help but give.

Another assumption which may be used to explain the discrepancy of responses on the two forms is that the third person stem elicits

responses which would be too threatening for the first person stem. The response of one of the delinquent groups is highly illustrative of this point. In response to the stem, "If I were younger again," he wrote, "I would obey the law and Gods commandment." But when the stem was changed to read, "If he were younger again," this same person wrote, "He would _ _ _ _ (four letter word) the girl."

In the Review of Literature (Figure 1) we pointed out that the utility of the sentence completion test is related to the area under investigation. We noticed that its most fruitful results have been in the assessment of psychological adjustment in adults. The method is moderately successful in measuring psychological assessment of children. The present groups under investigation being teenagers would fall in the middle of this age scale. I should, however, be noted that previous studies seem to indicate that there is a relationship between the age of the subject and the efficacy with which sentence completion tests can be used for psychological assessment.

Summary

A modified Sack's sentence completion test was administered in two forms--form A, first person stems and form B, third person stems--as a projective technique to juvenile delinquents and normal junior high school students. The hypothesis to be tested were: (1) people project more in the third person, (2) the abnormal projects more, and (3) there would be no difference in projection on neutral items. The results bear out all the three hypotheses. An exception seems to be the sex scale where no significant difference was found. This, however, may be attributed to a deficiency in the testing medium.

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APPENDIXES

Appendix A

	<u>Form A Stems</u>	<u>Form B Stems</u>
Family		
1. Attitude towards mother	17, 24, 44	33, 12, 22
2. Attitude towards father	10, 26, 37	5, 17, 43
3. Attitude towards family unit	1, 12, 47	25, 6, 48
Sex		
4. Attitude towards women	8, 30, 34	4, 15, 13
Interpersonal Relationship		
5. Attitude towards friends and acquaintances	9, 25, 38	29, 37, 19
6. Attitude towards superior at work and school	18, 16, 48	9, 8, 24
7. Attitude towards people supervised	7, 19, 41	28, 34, 45
8. Attitude towards colleagues at work or school	2, 27, 45	1, 38, 47
Self-concept		
9. Fears	5, 15, 21	27, 32, 35
10. Guilt Feelings	4, 22, 35, 40	2, 11, 42, 20
11. Attitude towards own abilities	3, 28, 31	26, 14, 40
12. Attitude towards past	23, 33, 43	36, 41, 46
13. Attitude towards future	36, 42, 46	18, 21, 23
14. Goals	13, 29, 32	31, 39, 16
Neutral		
15. Neutral	6, 11, 14, 20, 39	3, 7, 10, 30, 44

d = projection

FORM A

Time began:
Time finished:

Name: Sex: Age: Date: Class:

Instructions:

Below are 48 partly completed sentences. Read each one and finish it by writing the first thing that comes to your mind. If you cannot complete an item, circle the number and return to it later.

1. When I was a child, my family
2. I like working with people who
3. I believe I have the ability to
4. My greatest mistake was
5. I wish I could lose the fear of
6. The pet I like most
7. If people work for me
8. I think most girls
9. The people I like best
10. I feel that my father seldom
11. Leather for me
12. Compared with most families, mine
13. I always wanted to
14. I like to read
15. I know it's silly but I am afraid of
16. In school my teacher
17. My mother and I
18. People whom I consider my superiors
19. If I were in charge
20. My favorite fruit is
21. My fears sometimes force me to

FORM A Page 2

22. The worst thing I ever did
23. If I were younger again
24. My mother
25. I don't like people who
26. I feel that my father is
27. At work I get along best with
28. When the odds are against me
29. My secret ambition in life
30. What I like least about women
31. My greatest weakness is
32. I could be perfectly happy if
33. My most vivid childhood memory
34. My idea of a perfect woman
35. When I was younger, I felt guilty about
36. To me the future looks
37. If my father would only
38. When I am not around, my friends
39. My suitcase
40. I would do anything to forget the time I
41. In giving orders to others, I
42. I look forward to
43. When I was a child
44. I like my mother but
45. People who work with me
46. When I am older
47. My family treats me like
48. The men over me

FORM B

Time began:

Time finished:

Name:

Instructions

This is a nation wide survey of imagination. Relate the incompleting sentences below to the movie you have just seen and complete them. Some of the items may have no relation to the movie, but complete them all the same by using your imagination. Complete all the sentences and work fast as you have limited time. All the sentences are about John.

1. John likes working with people who
2. His biggest mistake was
3. His favorite animal is
4. He thinks most girls
5. He feels that his father rarely
6. Compared with most families his
7. He likes to read
8. His teacher in school
9. People whom John considers his superiors
10. His favorite fruit is
11. The worst thing he ever did
12. His mother
13. His idea of a perfect woman
14. When the odds are against him
15. What he likes least about women
16. He could be perfectly happy if
17. He feels that his father is
18. To John the future looks
19. When he is not around his friends
20. He would do anything to forget the time he
21. He looks forward to

FORM B Page 2

22. He likes his mother but
23. When he is older
24. The men over him
25. When he was a child, his family
26. He believes he has the ability to
27. He wishes he could lose the fear of
28. If people work for him
29. The people he likes best
30. He thinks that leather
31. He always wanted to
32. He knows it's silly but he is afraid of
33. His mother and he
34. If he were in charge
35. His fears sometimes force him to
36. If he were younger again
37. He doesn't like people who
38. At work he gets along best with
39. His secret ambition in life
40. His greatest weakness is
41. His most vivid childhood memory
42. When he was younger he felt guilty about
43. If his father would only
44. His suitcase
45. In giving orders to others, he
46. When he was a child
47. People who work with him
48. His family treats him like

Appendix B

Running commentary accompanying the movie.

John leaves home for school. He bids good-bye to his family

- - - - - On his way to school he sees a girl - - - - - He sees

a couple necking - - - - - At the entrance of the school he sees

some friends - - - - - He stops and talks to them - - - - - He

leaves then and enters school - - - - - He enters the classroom

- - - - - The teacher arrives - - - - - She teaches - - - - -

They study - - - - - He leaves school - - - - - On his way back

home he sees a mother and child - - - - - He thinks about them

- - - - - He sits down and thinks of his past.

VITA

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Tests Among Normal Adolescents and Juvenile Delinquents

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