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A Study of the Relative Personality Adjustment of Minor Seminarians Versus Regular Catholic High School Seniors in Fifteen Categories Using the Sacks Sentence Completion Test

Francisco Palomo
Loyola University Chicago

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**A Study of the Relative Personality Adjustment of Minor
Seminarians versus Regular Catholic High School Seniors in Fif-
teen Categories Using the Sacks Sentence Completion Test**

by

Francisco Palomo (SJ)

**A Thesis submitted to the Faculty of the Graduate School
of Loyola University in partial fulfillment of
the requirements for the degree of
Master of Arts**

November

1966

Life

Francisco Palomo was born in Malaga, Spain, October 16, 1930. He was graduated from Colegio de la Inmaculada y San Pedro Claver in Madrid in 1947. He entered the Society of Jesus in 1948 and was sent to Peru as a missionary in 1949. At the Xaveriana University of Bogota, Colombia, he obtained the Master of Art in Philosophy in 1956. He taught in Colegio de San Jose in Arequipa, Peru, for three years. He completed his studies in Theology in Mexico where he was ordained in 1962. He began his graduate studies at Loyola University, Chicago in September 1964.

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One often hears the older members of the clergy remark that too much emphasis is being placed upon ability tests today. The writer heartily agrees that ability is not the only quality for success in the seminary. There are the many other facets of personality and of character, and there is the attitude of the candidate toward his work. All these factors or dispositions within a person, need scrutiny before one is likely to be able to predict whether or not the candidate will succeed in his vocation. They have been scrutinized in the past by the time-honored methods of seminary heads, and a certain degree of success has been obtained. If there are new designs or devices that will enable the directors to do their job of selection more effectively, we are assured that they will be glad to receive and utilize them. (Herr, 1962a)

A diversity of psychological tools have been applied to aid in the process of evaluation and screening of candidates to the priesthood and religious life. The bulk of the investigation has centered around such instruments as the Minnesota Multiphasic Personality Inventory (MMPI) and various interests records. The present study is an attempt to evaluate the selective qualities of another instrument widely used as a secondary tool in the screening process, and rarely mentioned in the research literature on seminarians.

Introducing the chapter on Sentence Completion Techniques, Murstein (1965) commented that "The Sentence Completion Method is a valid test, generally speaking, and probably the most valid of all the projective techniques reported in the literature." (p. 777) He adds that the superiority of the Sentence Completion Technique (SCT) is due to the fact that "It has tried to predict to criteria consistent with the nature of the test in emphasizing verbality and consciously controllable behavior." (p. 778) The nature of the technique as described by Murstein is both a recognition of the values of the test and a warning against the frequent abuses made of this evaluative method, due to its simplicity and manageability. Sundberg (1961) said that the SCT is, among the group personality instruments, second only to the MMPI. Coville (1962), summarizing the evaluative work done on seminarians, reported that in

34 psychological assessment programs for selecting candidates for religious life, the SCT was the second group personality test most commonly used after the MMPI. The wide appeal of the SCT to seminary testers contrasts with the paucity of studies published about it. The variety of types of SCT--whose interchangeability for different populations is unknown--has limited the scientific application of the SCT to given groups. Two of the main problems the SCT encounters is, besides the variety of SCT used, the diversity of methods of scoring and interpretation, and the lack of normative studies to evaluate the results obtained from different groups. This lack of norms is surprising in view of the fact that the SCT has not been proved to be equally applicable to all populations. Meager results have been obtained from the SCT given to children. It would be profitable to see how the SCT compares to the MMPI and other instrumental aids used with seminarians.

The value of the SCT as a projective device has been discussed (Meltzoff, 1951). If the SCT is not, strictly speaking, a projective technique, it would be more apt to be used in a group administration basis. The validity of the projective instruments administered to groups is questionable. (Kobler, 1964, p. 169) The fact that the SCT is a semistructured test--half way between projective techniques as the Rorschach and the TAT and personality inventories as the MMPI--tapping new and diverse levels of personality, makes it an indispensable tool in batteries of tests used for screening where many personality levels and variables are involved. The limitations of the information obtained from the SCT need to be more extensively studied in order to interpret the data in their own value. Sacks & Levi (1950) stated vaguely that their SCT might reflect conscious, preconscious or unconscious thinking and feelings. The SCT is most commonly believed to elicit material from a level of personal-

ity close to awareness and consequently, controllable to some extent by the subject taking the test.

The purpose of the present study is not to investigate personality dynamics, defense mechanisms and other deeper levels of personality, but to measure the difference in degrees of personality adjustment in a certain number of categories between two contrasted groups. The concentration of Sacks' test in a limited number of dimensions avoids the dissipation of more unstructured SCT and makes it suitable for contrasting groups.

Intimately related to the limits of information is the understanding of the process involved in the production of the responses. In this knowledge is based the type of interpretation to be given, the understanding of the type of control exerted by the subject taking the test and the treatment of the data as signs or samples.

Another problem presented by the SCT is its use as an actuarial instrument and/or as an impressionistic method. The Sacks Sentence Completion Test (SSCT) has been more widely used as an impressionistic method to help in batteries of tests; its scoring system is primitive and does not allow a sophisticated statistical treatment of the data. Nevertheless, the investigator used an actuarial approach in an attempt to extend the applicability of the SSCT to a particular population and to determine personality patterns by means of the frame of categories provided by the SSCT.

Chapter I

Review of the Literature

There are two areas of investigation in the present review: (a) studies done on the application of psychological tests and questionnaires to seminarians, and (b) studies on the Sacks Sentence Completion Test. Theoretical and theological papers on the screening of religious vocations are excluded from the present study. The main focus of attention is on minor seminarians. The type of tests to be analyzed are those instruments used for personality assessment and screening of candidates for the seminary life.

1. Studies on seminarians

One of the earliest studies on seminarians was made by K. Sward (1931). He administered Heidbreder's Standard Scales for Measuring Introversion and Inferiority Attitudes to a group of 80 seminarians. Sward compared their scores with the norms obtained from 1108 college students. The seminarians showed to be marked by greater introversion and inferiority attitudes.

T. H. McCarthy (1942) used a battery of 13 tests to evaluate seminarians for adjustment to religious life. He compared the results of the tests with the ratings made by faculty members, and found no close correlations. R. H. Sweeney (1964) judged this fact as a logical result since the interests and attitudes of lay persons are in many ways different from those of the seminarians. McCarthy's discouraging results (constantly repeated in later studies) point to the core of the problem: a characteristic and typical pattern of personality of the priests and seminary members which does not fit into the standard frame of commonly used tests. McCarthy claimed to find two factors in the seminarian personality: (a) a schizoid factor--already detected

in the pioneer investigation made by T. V. Moore (1936) on the frequency of incidence in mental illness among priests and religious--and (b) a "g" factor or general fitness for continuance in seminary life as indicated by ten traits on a faculty rating scale. McCarthy found, from results on the Bell Adjustment Inventory and Bernreuter Personality Inventory, that the seminarian has greater emotional lability than the average lay high school student, higher degree of self-consciousness, less complete total adjustment, and a greater degree of submissiveness. On the Allport-Vernon Study of Values, the seminarian scored significantly higher in religious interests.

H. Burke (1947), stimulated by McCarthy's study (1942), tried to find a battery of tests to detect probable seminary drop-outs as early as possible. He administered 12 tests and two questionnaires--including a version of McCarthy's Faculty Rating Scale--to 191 first year and 91 fourth year minor seminarians. Intercorrelations and factor analysis showed no common factor but Achievement-g which was significantly correlated with survival and success. Burke concluded that no measure or combination of measures enable us to select seminarians who are good risk for priesthood. Consistent good academic achievement is, in Burke's battery, the best sign that a seminarian will persevere in the seminary and be a good candidate for priesthood. Certainly this fact is not negligible, but it is a good indicator of success for any other career. Finally, confirming McCarthy's findings, Burke concluded that the typical seminarian personality is more than average in submissive, dependent, introspective and self-conscious traits. The seminarian, as compared with candidates in other professions, showed a greater degree of emotional disturbance.

The best early study on interests for religious life was made by B. Lhota

(1948). He developed a Clerical Scale on the Strong Interest Blank based on the interests of Catholic priests. Lhota checked his Clerical Scale on minor seminarians to see whether it was useful instrument to help vocational counselors evaluate applicants to minor seminaries. He administered the Strong Interest Blank for men to 90 fourth year minor seminarians, 100 first year minor seminarians, 72 Catholic high school freshmen, and 61 Catholic school seniors. The seminarians came from four different seminaries, three located in the East and one in the West. The four year group ranged in age from 16 to 20 years with a modal age of 17; the first year group ranged from 12 to 19 years with a modal age of 14. Information about age was not given for the non-seminarian group. The summary of the results obtained with the four groups is reported in Table 1.

Lhota concluded that his Clerical Scale helps counselors to determine

Table 1

Percentage of Boys Falling into Strong's
Interest Categories on the Lhota's Clerical Interest Scale

Group	Percent Falling into Rating Category					
	A	B+	B	B-	C+	C
First year seminarians (N=100)	26	21	25	8	6	12
Fourth year seminarians (N=90)	45	21	12	10	8	5
High school freshmen (N=72)	1	10	11	14	11	53
High school seniors (N=61)	5	4	10	11	17	53

whether first and fourth years seminarians do or do not possess definite clerical interests. Definite clerical interests are for Lhota the interests of the average diocesan priests. It would have been valuable if Lhota had calculated the interests of the same priests when they entered the seminary and then compared them with the interests of his seminary groups. Interests are subject to change throughout the years of seminary training and priestly life. The establishment of norms from successful priests when they were seminarians has been suggested by McCarthy (1963) for interests tests and by Koblor (1964) for MMPI profiles. On the other hand, this has the disadvantage, especially for the interests inventories, of cultural changes and changes in vocational attitudes that may render the predictor of success obsolete and inadequate by the time.

W. C. Bier (1948) was the first to apply the MMPI to the study of personality adjustment in seminarians. He used 171 records of major seminarians, 206 records from medical students, 121 records from dental students, 55 records from law students, and 369 records from college students. All the subjects obtained mean T scores above 50 89% of the time in the nine MMPI scales. The number of T scores classified as abnormal--above 70--was more than twice what would be expected. The trend of higher scores was more extreme in the case of the seminarian group. The seminarians scored significantly higher than the medical students in Hs, D, Hy, Mf, Pa and Pt scales. The seminarians were also higher than the dental students in seven scales and lower than them in two. Compared to the law students--a more similar group--the seminarians were lower in five scales and higher in four. The seminarians obtained higher scores than the general population of college students in Hy, Mf, Pa, Pt, and Sc scales with only one--Mf--being statistically significant. The seminarians had also

higher percentage of abnormal scales than the other groups. Bier concluded that the seminarians as a group showed poorer adjustment than the other student groups. Bier divided the groups in well-adjusted and poorly adjusted segments. He found fewer significant differences among the well-adjusted and among the poorly adjusted groups than among the total groups. He concluded that the extreme segments of the groups were more homogeneous populations than the total groups. Bier found that the well-adjusted groups had smaller deviations from the total population than the poorly adjusted groups. He also found that inter-group differences within both the well-adjusted and the poorly adjusted segments were fewer than intra-group differences among the well-adjusted and the poorly adjusted of each student group. He, then, concluded that adjustment is something that cuts across vocational or occupational lines. Well-adjusted seminarians, for example, differed more from poorly adjusted seminarians than from any other well-adjusted segments of the groups. Consequently, Bier thinks that personality adjustment means the same thing for a seminarian as for any other student and that the norms of personality adjustment established for the MMPI population are applicable to seminarians. Later on, Bier corrected this statement trying to develop a special MMPI form for the seminarian population.

D. D. Markert (1963) checked on the inter-group differences of the extreme segments obtained by Bier and did not find them significant. He also attacked the homogeneity of the well-adjusted segments and their lower difference from the MMPI population on the basis of the skewed distribution of the MMPI T scores. Markert also criticized Bier's conclusion that adjustment is the same for the seminarians as for the other groups and that the MMPI is a suitable instrument for assessing the level of adjustment of seminarians because it accomplishes the same thing for them as it does for similar groups of students. Finally,

Markert called Bier's conclusion about the discriminatory power of the MMPI with seminarians "circular reasoning:"

Using the MMPI to differentiate two extreme sets of subgroups, he then shows how different they are from one another on the MMPI scores, and concludes that the MMPI does a good job of differentiating . . . The scores of people who scored low on the MMPI are more like the scores of other people who scored low than like the scores of other people who scored high . . . But this does not mean that the low scorers in each vocational group are equally well adjusted, even though their scores be the same . . . The fact that the distribution of T scores made by the seminary group was similar to the distribution of the T scores made by the other groups is at best only presumptive evidence that the MMPI has validity for application to seminarians; and this evidence is far from compelling especially in view of the outcome of his item analysis . . . The question of validity (except perhaps for "face validity") cannot be answered adequately without comparing the MMPI scores of the seminarians with the other criteria drawn from their behavior which can be assumed to reflect their adjustment. (p.65)

L. A. Wauck (1956) and others noticed before Markert the necessity of external criteria to check with the results obtained from the MMPI. Nevertheless, the results obtained using some validity criteria have not been more promising. Faculty ratings and drop-outs criteria are among the most widely used.

R. H. Sweeney (1964) criticized Bier's study on the basis that the test conditions were different for the different groups, the seminarians being subjected to an evaluative situation on which depended their probability of continuing as candidates for the priesthood, while the other student groups were not under similar pressure. It is hoped that the K-correction of the MMPI might account for part of this test-taking attitude on the part of the seminarians.

Using dropping out of the seminary as a validity criterion, F. B. Friedl (1955) compared 178 drop-outs with 356 seminarians who were termed successful because they had remained from seven to 14 months in the seminary. The Interest-

maturity of the Guilford-Zimmerman Temperament Survey was not found related to success but to predictability. Friedl was able to predict success 72% of the time and non-persistence 47% of the time using a cutting point of one standard deviation. His results do not look too encouraging since the period of persistence was extremely short.

The studies on seminarians with the MMPI were initiated in Chicago at Loyola University by L. A. Wauck (1956). He administered a battery of tests to a group of 207 major seminarians. The tests given were: the MMPI, the Ohio State Psychological Examination, the Group Rorschach and the Kuder Preference Record. As an external criterion, Wauck used faculty ratings on a five-point ten-trait scale developed by McCarthy (1942). Wauck found a significant multiple correlation of .38 between the test battery and the faculty ratings, but no significant correlation between faculty ratings and any individual test. The Group Rorschach, scored by the Harrower's Inspection Method, showed the highest correlation. Wauck points out that the results can be partly attributed to the fact that the major seminarians are already a highly selected group through the natural screening process of the minor seminary. This points to a possible larger effectivity of the screening instruments when used with minor seminarians. Wauck further compared the MMPI scores of 20 seminarians judged best adjusted by the faculty rating with the MMPI scores of 31 seminarians judged worst adjusted. Scales D and Mf showed significant differences between the two groups. It is interesting that the best-adjusted seminarians produced higher scores in these scales than the poorly adjusted seminarians. The best-adjusted seminarians were higher also in four more scales and not too distant from the poorly adjusted group in the remaining scales. In few words, the typical successful seminarian has a high triad of D, Mf, Pt

with a peak on Mf. These scores do not constitute a standard profile of religious success. Wauck thinks that it is beyond the MMPI capacity to use it as a predictive instrument for a highly selected population. This conclusion would reduce the applicability of the MMPI to a seminary group to the general function of revealing basic levels of adjustment.

Wauck found the Kuder useful for guidance in the seminary but not appropriate for predicting success. Two of the nine scales were significantly correlated to faculty ratings. The highest interests in the seminarians were in the social service and literary areas. It is interesting to cite the optimistic portrait Wauck depicted of a seminarian for the purpose of comparing it later with the results of the present investigation.

The "typical", well adjusted seminarian in this study may be described as being of superior intelligence, strongly interested in people and ideas, tending toward more normal anxiety, but with insight and good emotional control. He tends to have fewer pathological conflicts and basic immaturities in his personality than does his poorly adjusted classmate. He always tends to be relatively freer of morbid preoccupations, strong depressive feelings, and crippling anxiety. In a word, he is able to organize, mobilize and direct his intellectual, volitional and affective powers towards the goal of social achievement, a personal happiness with a minimum of strain and dissatisfaction. This interpretation is made despite the presence of relatively elevated D and Pt scores on the MMPI for the "best adjusted" portion of the population, since the writer does not believe that the usual interpretation oriented along pathological lines is warranted. De facto, in the light of careful clinical observation, this group with higher D and Pt scores is not more maladjusted than the group with lower scores. This is further borne out by the fact that the better adjusted group, while obtaining D and Pt scores on the MMPI, is actually singularly low in these signs on the Group Rorschach. (pp. 64-65)

J. B. Murray (1957, 1958) used the MMPI in a battery of tests on a group of subjects consisting of 100 priests, 100 major seminarians, 100 minor seminarians and 200 college students taking a psychology course. The elevation of some MMPI scales in the seminary group found by some investigator was

confirmed by Murray's findings. In particular, the minor seminarians were more elevated than the college students on eight scales (in four of them at a significant level). The major seminarians were higher than both the minor seminarians and the college students except on Pd and Ma scales. Eight of these scale differences were significant. Murray concluded that the seminary life tend to elevate the scores. After the priestly ordination, the constrictive atmosphere is relieved and this is shown then in a lowering of the MMPI scores. Murray added that the typical personality characteristics of those attracted to the priesthood and the nature of the training itself were some of the factors entering also into the results. The investigator wants to indicate that the fact that the minor seminarians scored lower than the major seminarians confirms the suggestion already made that selection factors are responsible to some extent for the elevation of MMPI scores in major seminarians. The comparison of minor seminarians to college students raises the question of the disparity of samples. R. H. Sweeney (1964) also questioned Murray's inference that the seclusion of the seminary atmosphere is partly responsible for the elevation of scores in the major seminary group. He based his criticism on the fact that area Sc was higher in minor seminarians and it is not significantly lower in the group of priests.

The other tests of Murray's battery were the Guilford-Zimmerman Temperament Survey (G-Z) and the Strong Vocational Interest Blank (SVIB). Both the priests and the seminary samples generally compared favorably to the sample of college men, modifying, in some extent, the results obtained from the MMPI. The college group was inferior--at a significant level--to all other groups in Friendliness and Good Personal Relations scales of the G-Z. The most favorable scores on the Emotional Maturity scale of the G-Z were obtained by priests.

Most interesting is the fact that these results still held after the taking into account of the influence of age differences among the different groups. The priests and major seminarians also showed--contrary to the results on the MMPI-- "easily normal" interests and more "masculine" tendencies than the college group in the G-Z's Masculinity-Femininity scale. An important factor --Murray explains-- that has to be taken into consideration to evaluate these results is the fact that the Masculinity-Femininity scales used in many personality tests tend to show an increase of femininity in college men due to the common cultural background and set of interests shared by both men and women college students.

On the Strong test, Murray confirmed the results obtained by B. Lhota (1948) that the old Clerical scale did not differentiate seminarians and priests from the college group while the scale developed by Lhota did the job of differentiating them adequately. He concluded that so far the Lhota scale is the best differentiator that appears to exist in the area of vocational interests of seminarians.

The work of M. (Mother) Elaine (1957) was not made on seminarians, but has some interest for the investigator because it is the first publication of a study on religious vocations using the Sentence Completion technique. Elaine gave a battery of tests consisting of the MMPI, a Sentence Completion Test, and the Draw-a-Person Test to a group of religious women. She found that they scored significantly less favorably than did the four other related groups.

P. J. Rice (1958) made an interesting investigation commenting on and criticizing the stimulating work of Bier on the MMPI (1948). Rice found that, besides the inappropriateness of some MMPI items for seminary populations

noticed by Bier, these are some other reasons which explain why the seminarians scored higher than the normalized and college groups on the MMPI. Rice questioned whether the heterogeneous group of seminarians used by Bier produced an atypical pattern and whether it can be applied to other seminary populations. Rice made a study on the function of the K-correction in the MMPI profiles. With the K-correction, his group of 73 major seminarians of a religious order, obtained T scores of 60 or over in areas 3, 4, 5, 7 and 8 of the MMPI, but without the K-correction there is an elevation of scores only in areas 3 and 5 (Hy and Mf respectively). The K-corrected scores are over 63 in scales 7 and 8 (Pt and Sc respectively) indicating a disturbed compulsive and schizoid group. Rice concluded that the K-correction elevated the scores of his group up higher than the highest group tested by Hathaway in his normalizing studies. Therefore, the K-correction is a distorting element in the records of the seminarians. Studying Bier's sample of seminarians and comparing it to the normalizing males on the basis of raw scores, without the K-correction, Rice discovered a significant difference in seven scales. Rice, then, concluded that the standard scoring system of the MMPI is not applicable to the seminary populations. Furthermore, Rice compared his group with Bier's group of seminarians on the T scores without the K-correction. He found a significant difference in four scales, his subjects scoring higher than Bier's subjects. Rice concluded that Bier's "representative sample" may not be so representative. Finally, he suggested, in the face of these results, that each religious institute or seminary should set up its own norms, since there is no typical MMPI profile applicable to all seminary populations. Rice thinks that Bier's modification of the MMPI changes the profile that would be obtained using the standard MMPI form. Many other investigators

consider the Bier's modification an unfortunate solution. Those using the MMPI modification proposed by Bier cannot benefit from the constantly increasing literature devoted to investigations on the full-length MMPI. Rice also suggested the construction of a new "seminary adjustment" scale through an empirical item-analysis.

There is an important criticism made by Sweeney (1964) on Rice's study. The average age of Rice's group (31.9 years) is higher than the age of Bier's group (24.6 years). It is well known that age is a contributing factor in the elevation of MMPI scores. Besides, the defense-free attitude of Rice's subjects may have presented a more spontaneous and unflattering self-image than that presented by the attitude of the more test-bound subjects of Bier's study. The present investigator thinks that the development of a new seminarian scale will not obviate the distortion created in the other scales and that this distortion has to be corrected by an appropriate device.

R. J. McAllister (1961) reported a study similar to the study Moore (1963) did 25 years before on the incident of mental illness and disorders among the clergy. He used a group of 100 priests and a group of 100 non-hospitalized seminarians expected to be ordained within four months. More interesting would be a group more distant from priestly ordination. Table 2 shows that the psychic impact of parental figures, specially maternal figures, is greater for the clergy-group. McAllister agreed with Moore's (1936) interpretation of this fact, i.e., that the distortion created by parental figures remains more effective in the clergy group. McAllister attributed this persistency of distortion to the lack on the part of the priest of close interpersonal relationship with associates in love affairs and courtship, in marriage and with their own children. McAllister presented also another table (Table 3 in the

Table 2

Percentage of father and mother dominance and closeness

	father dominant	mother dominant		father closer	mother closer
Clergy (N=43)	9%	91%	(N=49)	12%	88%
Lay (N=49)	31%	69%	(N=54)	24%	76%
Seminarians (N=76)	43%	57%	(N=76)	25%	75%

present study) with the frequencies of incidence in emotional problems based on 40 histories of seminarians. McAllister concluded that 77% of positive responses points to the need of a careful selection of candidates to the priest-

Table 3

Emotional Problem in Seminary

	Number Responding	Number with problems	% positive Responses
Alcohol	7	5	71%
Anxiety	12	9	75%
Sex	9	8	89%
Other	12	9	75%
Total	40	31	77%

hood. The clergy group showed an earlier onset of symptoms. McAllister computed how different symptoms of maladjustment relate to the ordination time in an interesting longitudinal study. They are represented in Table 4. No alcoholic symptoms are shown previous to ordination because they are maintained in strict control and checked during the seminary life. Sex problems are presented before ordination; therefore, they are not created by it.

McAllister's study in a group of maladjustment symptoms contradicts other investigators' findings that there is an increasing with age in the elevation of the MMPI profile of religious vocations. Possibly both results can be reconciled by saying that the line of elevation has its peak before ordination and then diminishes gradually.

Finally, McAllister found more sociopaths among the clergy, a result which

Table 4

Symptoms Related to Ordination Time

	Prior to Ordination	0-5 Years After	6-10 Years After	11-20 Years After	Over 20 Years
Alcohol	0	19	8	3	2
Anxiety	14	7	4	5	0
Sex	9	1	0	0	0
Other	13	7	3	2	3
Total	36	34	15	10	5

checks with their high Pt's in the MMPI.

Finally, McAllister found more sociopaths among the clergy. He attributed this fact to the following causes: (a) seminary training and clerical life, (b) lack of duration and depth in interpersonal relationships, (c) "spirit of detachment" becoming synonymous with "fugitive, fleeting, involvement with other people" (using Sullivan's words), (d) sociopaths are attracted to the challenge of religious life since they need to prove themselves, and (e) sociopaths are more comfortable in religious life because of their need to keep a distance between themselves and others.

McAllister brought up many interesting conclusions. His study, nevertheless, lacks in statistical elaboration.

Twin studies were conducted at Loyola University of Chicago at the same time by A. F. McDonough (1961) and J. R. Gorman (1961). They reproduced the design used before by L. A. Wauck (1956). They used a battery composed of the MMPI, the Kuder and the Mooney Problem Check List. They employed as a validating criterion faculty ratings on a five-points basis scale. The only difference between both studies was that Gorman worked with fourth year minor seminarians and McDonough with seminarians in the first year of college. Using different cutting points they divided their subjects into "high" group and "normal" group on the basis of their MMPI scores. They found--as Wauck did before-- that the percentages of good or bad ratings given by the faculty did not match the "high" or "abnormal" categories on the basis of the MMPI scores. McDonough concluded that the MMPI is a blunt instrument. Gorman concluded the same thing more benignly saying that high scores on the MMPI of seminarians do not necessarily mean that they are badly adjusted for the seminary life, but that they may need counseling help with their emotional problems. McDonough,

Gorman and other users of batteries overlooked a fact still insufficiently explored and clear in the results obtained by Wauck that the battery as a whole is more evaluatively productive than any test in particular.

V. V. Herr (1962) was the first to use, in the Loyola University studies on screening vocations, drop-outs as a criterion to compare with scores on the MMPI. This criterion was used before in 1955 by Friedl with the Guilford-Zimmerman Temperament survey. Herr also employed faculty ratings. His battery consisted of the MMPI and an intelligence test. After the tests were given, 10 out of 50 seminarians were registered as drop-outs. The objectives of investigation were: (1) the mental ability, indicated by the intelligence test and the natural process of screening of seminary studies, (2) emotional controls, sought in area Pd, Pa and Pt scales on the MMPI, (3) doubts, anxiety and guilt, as revealed by Hs, D, Hy and Pt scales, (4) relation to persons in authority as indicated by Pd, (5) self-regarding attitude as shown by Sc and Ma in addition to Hs and Hy as indications of psychosomatic preoccupations, (6) the self and the group, social adjustment as indicated by Si scale, and (7) adjustment to sex as suggested by Mf scale. The subjects were divided into three groups on each scale according to their degree of adjustment. The faculty ratings agreed with the MMPI scores in scales Pd, Hs and Pa, disagreed on scale Pt and partially agreed on scales D and Hy. It is interesting that the faculty ratings up-graded those with the highest scores on scale Mf. For educated people scale Mf might indicate artistic and cultural tendencies, an interpretation commonly repeated by the investigators on the MMPI. The drop-outs showed a significantly elevated score in scales Pt, Pd and Sc. Herr concludes the existence of a real personality difference between well-adjusted persevering and poorly adjusted non-persevering candidates. Herr added that

the value of the MMPI as an evaluating instrument consists in (1) confirming the faculty rating in the areas of worry, anxiety and concern over health, and (2) disagreeing with the faculty rating on emotional withdrawal and cyclic moodiness, but effectively distinguishing between successful and unsuccessful seminarians. The MMPI discovers emotional problems which the faculty raters do not see or ignore as unimportant for success in seminary life. Herr was aware of the paucity of drop-outs seminarians in which he based his conclusions. The present investigator still does not see convincing enough correspondence from Herr's study between perseverance in the seminary and adjustment, on one hand, and dropping out of the seminary and maladjustment, on the other. There is still the need for an adequate criterion to validate with the predictivity of the MMPI profiles of seminarians.

D. D. Markert (1963) made an investigation on the opinions about priesthood in Catholic high school boys and minor seminarians. His conclusions have some tangential value to the present study. Markert divided his subjects in four groups: high school freshmen (N=43), high school seniors (N=34), first year seminarians (N=36) and fourth year seminarians (N=31). The type of instrument Markert used was a questionnaire whose results were treated with accurate statistical methods. Markert found a great deal of similarity among the groups. Seventy percent of the total number of 558 inter-group comparisons showed no difference. Some differences were found due to the vocational dimension of the groups and to the age factor. The seminary group saw less similarity between the priesthood and some other occupations listed than did their lay peers. The desirability for priests to have some positive qualities appeared to be influenced by the vocational attitude of the groups. Both seminary groups saw greater desirability than their lay peers. Both senior

groups saw greater desirability than their respective freshmen groups. There was a general tendency for the older adolescent subjects to see the impropriety of certain type of behavior for priests as less severe in degree than did the younger subjects. The seminarians have a tendency to judge proper behavior for a priest as slightly less proper in degree than the lay subjects did. The way a priest can understand the problems of lay persons was also influenced by the vocational dimension. The lay persons saw the priest as less understanding. This difference increased with the age of the subjects. How much the priest was seen as best able to help with some personal problems was also influenced by the vocational choice of the subjects and their age. The older lay group considered the priest best able to help people with personal problems less often than did all the other groups. Markert concluded that the older seminarian group stood out as having the strongest and clearest ideas about the personality and function of a priest. The older lay group was the one which tended less to idealize the priest than all the other groups. The results obtained by Markert showed some similarity to the findings of Lhota on the interests of priests and seminarians. Lhota found that the interests of priests and seminarians correlated highly with those of social science teachers and city school superintendents, moderately highly with those of math-science teachers, office managers and insurance salesmen, and lowest with those of engineers. Markert's subjects saw also engineers as least similar to priests, but they rated teachers as second highest and scientists second lowest in relation to the priestly vocation. Markert criticized a similar study made before him by P. Babin (1953), a Belgian experimenter, on the basis of his statistical computations. The investigator thinks that the significance of the results obtained by Markert are lessened by the facts of the small size of his

groups--specially for an instrument such as a questionnaire--and the small age differences between the different groups.

R. P. Vaughan (1963) administered a battery of four personality instruments to a group of 218 seminarians whose age ranged from 18 to 30 years. In a period of five years, 55 of the subjects left the seminary and 163 remained. They were used as the criterion. From an analysis of the MMPI, Vaughan drew similar conclusions to those already obtained from former studies, i. e., that the clinical scales failed as predictors of success or failure in religious life. The patterning of those who left the seminary tended to center more around Hy-Pd and Pd-Ma peaks. Of a great concern for the investigator are the results Vaughan obtained from his subjects using two Sentence Completion tests, one of them the Sacks' Sentence Completion Test. Vaughan's findings on this test will be analyzed in the next section of the present chapter.

Despite the meager results obtained with the MMPI on vocational screening, there was a proliferation of studies on the MMPI at Loyola University of Chicago in 1964. The variety of clinical scales, the potentiality for inferences, the empirical construction, the statistical perfection and the easiness of administration contribute to the attraction the MMPI exerts on investigators.

R. H. Sweeney (1964) administered a battery of tests (the Ohio State University Psychological Test, the MMPI and the Kuder Preference Record) to a group of 355 candidates who dropped out of the training before ordination and to a group of 128 successful candidates. The seminarians were in the year of the seminary studies that precedes their admission to the novitiate. Sweeney studied two of the most used predictors of drop-outs: elevations in special scales and the presence of two or three scales with a T score of 70 or over.

Sweeney could not confirm these hypotheses. He found that only 10% of the candidates with three T scores over 70 persevere, but only 14% of those who drop out have such high scores. In explaining the results, Sweeney insisted in the possibility of faking good--a factor not controlled as well as faking bad in the MMPI--on the part of the most conscientious seminarians. This could explain the elevation of their scores and the reduction of the gap between them and the less-inspired candidates. This reason given by Sweeney weakens still more the predictability of the MMPI for successful candidates. Sweeney also found no basis for confidence in the faculty ratings as a criterion. He said that this criterion has to be checked (a) against the number of candidates who enter the novitiate (b) against those who will be accepted for perpetual vows in the clerical order, and (c) against those who drop out of training. Sweeney found that the judgements of the faculty were correct in 84% of the times with the successful candidates and 70% with the unsuccessful candidates. Sweeney thought it hardly feasible to establish a satisfactory correlation between faculty ratings and MMPI profiles.

From his study on the Kuder, Sweeney concluded that the Kuder profile does not provide an adequate distinction between successful and unsuccessful candidates.

The results obtained by C.A. Weisberger (1964) are not more optimistic. He reported a five years survey with the MMPI and other screening instruments. The Bier correction of the MMPI was administered to 211 seminarians of a clerical order. Seventy seminarians later dropped out. The ratings of a psychologist were correct 70.8% with the satisfactory candidates and 53% with the unsatisfactory candidates. When the MMPI profiles were analysed, no significant difference on any scale was found between persevering candidates and

drop-outs. Weisberger grouped the high scores to discover score patterns, but he found very little amount of clustering. He studied several patterns. He observed that the inclusion of those who dropped out before entering the order would have increased the amount of predictability of the screening instrument. He suggested that the study of the MMPI profiles of candidates is helpful in identifying the poor risks and those who need clinical attention. He added that, given the present techniques, he could expect to miss two and a quarter bad risks a year and to catch one and a half. He concluded with a "pronounced suspicion" that psychological techniques cannot predict a person's behavior very far in advance and that the seminary directors have to settle a screening program for the first four or five years of religious life. Finally, Weisberger mentioned that a Sentence Completion Test has been used in the screening research. He referred to the SCT as a test which "puts flesh and blood on the skeleton presented by the MMPI profile and contributes rich information on background and attitudes." (p. 146)

F. J. Kobler (1964) published a study collecting several experiments made at Loyola University of Chicago. Kobler's study has the impressive value of the number of subjects. He used 1,152 MMPI records given to religious persons, 5,000 MMPI records from college students, 740 Euder records from religious and 390 Mooney Check Lists given to religious. Kobler used three groups. A, B and C. The last two groups are of special interest to the present investigator because they were composed of minor seminarians, college freshmen, high school seniors, respectively. Kobler designated small arbitrary high groups according to mean scores on the MMPI. The high C subgroup had a mean score on the MMPI of 58.8 with one or more scores of 70 or more and with scales Sc and Pt highest--~~12~~

scale was excepted in all groups, but precisely in group C, Mf was the lowest of all the groups even including the 5,035 college students group.

In the Kuder, the religious women group (group A) showed interests similar to those of men in the general population, and the group of religious men showed interests similar to those of women in the general population. The same results have been obtained with Protestant religious groups in the Kuder. The percentiles of groups B and C are shown in Table 5.

Table 5
Kuder Percentile Ranks for Two
Catholic Minor Seminarians Groups

	Groups	
	B	C
Outdoors	31	29
Mechanical	17	16
Computational	63	70
Scientific	45	46
Persuasive	30	32
Artistic	33	36
Literary	85	81
Musical	59	57
Social Service	93	91
Clerical	39	41

The mean percentage of problems checked in the Mooney Problem Check List

are shown in Table 6. Kobler found that all the high groups checked more

Table 6
Mooney Problem Check List Findings

Problem Areas	Number of Problems		Percentage of Total Problems	
	B	C	B	C
Health and physical development	338	496	9.99	10.20
Finance, living conditions and Employment	209	354	5.38	7.28
Social and Recreational Activities	599	525	15.43	14.91
Social-psychological Relations	529	667	13.63	13.72
Personal-psychological Relations	469	528	12.08	10.86
Courtship, Sex and Marriage	93	141	2.40	2.90
Home and Family	287	307	7.39	6.31
Morals and Religious	181	306	4.66	6.29
Adjustment to College Work	771	913	19.86	18.34
The Future: Vocation and Education	121	202	3.12	4.30
Curriculum and Teaching Procedure	265	212	6.83	4.36
Total	3682	4861		

B. Diocesan men. Minor Seminary. Mean age 19

C. Diocesan men. Minor Seminary, Mean age 18

problems than did the low groups. The type of problems checked was not different in both high and low groups. From all the different test results, Kobler deduced an operating principle for screening purposes. He proposed that the applicant should be further clinically evaluated when he has a mean score in the MMPI of 58, one or more score above 70, high scores, specially in the scales Pt and Sc, a Kuder profile exaggerated in the indicated direction or flattened indicating no pronounced interests, and if the Mooney for men shows 20 or more problems checked with 10 or more of a serious type. When Kobler tried to explain the lack of relation between faculty ratings and MMPI scores, he considered the possibility of both being measuring different things. Kobler made a very fine clarification when, looking at the confusion in the literature, he distinguished between the use of the MMPI to select the most prominent candidates and the MMPI as an instrument to detect disturbed candidates. He concluded that the purpose of the test is to make a clinical contribution identifying personality disturbances and not a selection of the most prominent candidates. In other words, the MMPI is an screening instrument for psychopathology. The present investigator thinks that the MMPI is not a better or different aid in the process of screening religious vocations than in the screening process for any other high personnel selection. Is Kobler's cut off point of significance particularly for seminarians? Kobler based his findings mostly in MMPI profiles of drop-outs. The percentage of maladjustment in drops with relation to those who do not leave the seminary has not been proved large enough to use it with confidence as a valid unique criterion.

L. H. Gardner (1964) made a new and valuable contribution to the studies of religious vocations. He brought in new instruments and new criteria. The discouragement produced by the results of the studies with the MMPI--said

Gardner--made some investigators think in a more projective test to be applied to seminarians. Gardner proposed to validate the MMPI against individually administered projective tests such as the Rorschach which are free of influence of role playing and attempts of faking. Gardner used as instruments the RPRS (Rorschach Prognostic Rating Scale), the GLS (Genetic Level Score) and the RDC (Rorschach Defense Checklist). The subjects were 90 minor seminarians subdivided in three groups of 30 each. One group was formed by minor seminarians considered the best adjusted and most outstanding; a second group consisted of seminarians judged as maladjusted by criteria such as the report of problems in personal adjustment or obtaining scores of 70 or more on two or more MMPI clinical scales. The seminarians in the third group were neither the best adjusted nor poorly adjusted. Using the RPRS alone, a 71 percent of correct identification was obtained of members of each of the three groups. The MMPI scores were rechecked against the RPRS scores and only 13 out of 90 cases of disagreement were found. Gardner concluded that "These results indicate not only that the RPRS performs exceptionally well as an actuarial instrument but also that the MMPI results in the seminary population can probably be accepted at face value in all but a very few cases." (p. 106)

In the next step, Gardner used a projective battery to distinguish adjustment and maladjustment groups and found that only some components of the RPRS distinguished between the groups while the GLS distinguished at a high level of significance. He found intergroup differences in the use of defenses. It is interesting that in the Reaction-Formation Scale, the best adjusted group scored highest, in the Isolation and Repression Scales, lowest.

The use of concurrent validation of screening instrument should not lead Gardner to disregard more external criteria of validity but to

investigate how to incorporate them into the research endeavor.

J. J. Murtaugh (1965) compared the results of the MMPI and the Kuder of 90 priests who took these tests twice with a difference of about 10 years between test and retest. He also compared these priests with another 56 of the same ordination group who did not respond to the retesting request, as well as 55 seminarians who dropped out before ordination. Murtaugh found (1) that the MMPI was not reliable for the period of 10 years as a predictor of performance--this confirms Weisberger's suggestion of MMPI variability with the time--and, (2) that the MMPI scales failed to show discrimination between successful and nonsuccessful candidates. Murtaugh interpreted the variations in scales Pt, Ma and Hy as a result of the environmental differences between seminary life and parochial life. Meticulousness, conscientiousness and sensitivity to emotional involvement are a product of the confinement and demand for excellence of the seminary life and training, whereas parochial life promotes greater self-expression and social freedom. Body complaints and heart and gastric illness in the part of the priests are more the result of external frustrations than the subproduct of excessive self introspection or compulsive tendencies. Finally, Murtaugh noted how the same self-centered seminarians later adapted themselves to the environmental demand of the parochial life. Though their paranoid tendencies as seminarians remained unchanged, they did not interfere with their social functioning. Murtaugh's findings put a valuable warning in the prediction of behavior over a period of time using personality instruments as the MMPI.

Q. Hakenewerth (1966) tried to solve one of the problems overlooked in the literature of the MMPI applied to religious vocations, i. e., whether the traits found in the seminarians are brought to religious life or developed

after entering the religious life, or both. He made a longitudinal study giving the MMPI to 80 religious brothers when they entered the novitiate in 1950-1959 and repeated the tests again in 1964. Hakenwerth found that the amount of time spent in religious life is not a consistent factor which can explain the rise of the scores in the MMPI. Since he found significant differences between the pre-entry MMPI scores and the retest scores, he suggested that the rise in the MMPI scores was due to the training period rather than to the religious life itself. The regimen of religious life simply maintains constant the initial elevation of the scores. The training period of religious life has a great impact in the applicant. He isolates himself from the world and tries to think in a different way. He tends to exaggerate his psychical defenses to solve his problems. Things perfectly honest for him before, are now a hindrance in his way to religious perfection. He tries to find in the observance of the rules part of the support that comes from intense interpersonal relations. All these factors are seen by Hakenwerth as responsible for the elevation of H_y and S_c scales. They do not suggest a personality breakdown but rather the added stress caused by taking a higher goal of self-perfection. Though Hakenwerth's explanation is acceptable, it can explain only the elevation of scores of candidates to religious orders, but it would be less applicable for minor seminarians.

Conclusions.

There are three types of orientations in the literature of screening and personality evaluation of the candidates to the seminary and religious life. The first type consists of studies on the incidence of mental disturbances among the clergy (Moore, McAllister). The second type consists in the investigation of attitudes, interests, opinions and characteristics of the candidates

to the priesthood (Babin, Markert, Lhota, etc.). The third type of orientation consists of the application of psychological tests or inventories to assess the personality characteristics and patterns of religious vocations.

The tests most widely used in the third type of studies was the MMPI. The first reported investigation with the MMPI on seminarians was the study made by Bier. He originated the idea of a seminarian MMPI profile. He tried to correct the elevated scores obtained by seminarians modifying the MMPI. Rice criticized Bier's modification and tried to defend the integrity of the instrument; nevertheless, he followed in some way the same orientation using the MMPI scores with seminarians without the K-correction. The main criticism made to Bier is the lack of validation criteria. A second step in the use of the MMPI with seminarians is the experiment conducted by Wauck. He used faculty ratings as a criterion of validity and he combined the MMPI with the Kuder and a Group Rorschach to form a screening battery. Many other tests have been used with the MMPI as the Guilford-Zimmerman Temperament Survey, the Strong Vocational Interest Blank, the Kuder Preference Scale, Sentence Completion tests, and intelligence tests, etc. A third step in the use of the MMPI is the incorporation of a new criteria of validity--the drop-out--used in the study made by Herr. Still this criterion is applied blindly since little is known about the personality characteristics and motivation of the drop-out from the seminary. A collection of many studies made on the MMPI was presented by Kohler. He ventured to set up a cutting point using the MMPI in a battery of tests but limited his application to a screening for psychopathology. The present investigator thinks with McCarth (1963-4) the role of the religious clinical psychologist can be extended further than to a screening for psychopathology. New techniques can be devised to select predictor

variables and criteria out of the rich performance of religious life and priestly ministry. Finally, a fourth step in research on seminarians was marked by the work of Gardner who used a combination of projective and personality tests in concurrent validation. He overlooked more external criteria.

There are two main obstacles which have caused the lack of more positive results in the literature of psychological evaluation of candidates to religious life and seminary: (1) the lack of adequate experimental designs often confusing the evaluation of the results, and (2) the paucity of validation criteria. The need of a better control of the testing conditions has been manifested in the literature in the effects of role playing in some test results. Other variables as age, different seminary conditions, different ministerial jobs of the priests, variations of interests and attitudes with the time, etc. have to be considered in their effects on predictability. Such criteria as the peer's ratings--so widely used in the psychological literature--has been neglected. This is due partly to the idea of sacredness and inaccessibility of the religious vocation. The family background, the environmental conditions, the phases of training, the social relations and all the different activities of the religious life are imperceptibly intermingled with elements of the divine vocation and, therefore, can provide the expert psychologist with a rich source from which to obtain criteria for validating his test findings. Finally, new tests, rating scales, inventories and other psychological instruments have to be designed for specific use with seminarians.

2. Studies on the Sacks Sentence Completion Test

There is a vast literature in Sentence Completion tests but there are almost as many different Sentence Completion tests as experimenters. The Sacks Sentence Completion Test (SSCT) is one of the best known sentence completion

tests and possibly most widely used in clinical work, but there is very little literature reported on it due to its lack of empirical sophistication.

The first study reported on the SSCT was made by its author, one year before the publication of the test. J. M. Sacks (1949) used two forms of his test: in Form A all of the items were worded in the first person and in Form B in the third person. Both forms were administered in diverse order to 100 subjects who were patients of a VA hospital. Sacks found that six of the significant differences between the two forms were in favor of the first-person form. The first-person form was found more effective to detect the subject's disturbance and attitudes in the areas of attitude toward mother, father, family unit, heterosexual relationships, superiors, colleagues, future and goals. The first-person form also resulted in significantly greater agreement with the ratings of the psychotherapists (76% partial or total agreement). Sacks is not too optimistic about his results. There are many other variables involved. More negative feelings toward the father and superiors were expressed in the third person. B. I. Murstein (1965) commented on Sacks' article and suggested that the effects of order should have been more clearly studied, and that an item analysis should clarify the dimensions involved in the SSCT for purposes of prediction.

L. Brody (1957) compared 375 chronic violators, 133 accident repeaters and 124 controls in the SSCT and in some psychophysical measures such as reaction time, depth perception, visual field, etc. He found that the psychophysical measures do not differentiate between good and bad drivers whereas the SSCT had some success in differentiating them.

D. V. Fiske and C. V. Buskirk (1959) used his own Sentence Completion test and the SSCT to test an observed fact that the majority of the responses

are changed from one testing to the next. They compared the differences between the interpretations of protocols from the same person and from different persons. Using the Q sort technique, different judges interpreted the protocols in terms of an ordering of personality needs. The agreement was higher with protocols for different persons than with other protocols from the same subject in 25 percent of the cases. Fiske and Buskirk concluded that a single protocol is not a sufficient basis for an interpretation that differentiates a person from another. They used two groups of subjects but their number was surprisingly small--four subjects in each group. Another criticism of this study is that the authors used retest reliability which is very low in the Sentence Completion tests.

L. Kinsley (1961) studied the suitability and applicability of the SSCT to evaluate personality structures of psychopathic offenders. He used two prison groups of 25 psychopathic offenders and 25 non-psychopathic individuals, and 50 non-incarcerated controls. Two judges rated each of the 15 SSCT variables. They agreed in 74% of the 1,500 scores. Using a third judge, 67% of the remaining scores were incorporated. Kinsley modified Sacks' scoring system using 0, 1, 2 and 3 ratings instead of X (non constat), 0, 1 and 2. Using analysis of variance, Kinsley found that the psychopaths scores were significantly higher than those of the non-psychopaths in the areas of hostility heterosexual relations, attitudes toward authority figures and toward subordinates, and guilt feelings. The psychopaths' scores were higher than those of the control group in the former areas plus those of attitudes toward the father, mother, family unit, and the future, and self-esteem. Kinsley concluded that the SSCT is capable of differentiating prisoners from normal controls as the MMPI did. The present investigator thinks that Kinsley made a

serious mistake when changing Sacks' scores 0 (normality) into 1 and adding them up with scores 2 and 3 increasing the line of abnormality. He should have operated only with Sacks' two ratings for abnormality or used a new three point scale for abnormality.

The Psychological Abstract (1963) reported an interesting study on the SSCT by De Binaleswar and G. P. Giri (1962) published in the Indian Journal of Psychology:

J. M. Sacks' Sentence Completion Test (SCT) was translated into Hindi and administered to a group of 40 college students and to a group of 25 institutional orphans; all subjects were aged 18 or over. Sacks' clinical rating scheme was used for scoring the 20 completed /why only 20?/ of each S. Significant chi-square values were found separately for each group of subjects for the distribution of "healthy", "unhealthy", and "neutral" responses within each of the four personality domains of the test. There was a preponderance of "healthy" responses in the college group. These results were interpreted as indicating, contrary to Symonds, that the SCT is not only descriptive but also evaluative. They also expressed caution concerning the subjectivity of scoring and note the great potency of certain sentences to evoke "unhealthy" responses. (p. 671)

J. C. McGreevey (1962) used the SSCT with 5 TAT cards in conjunction with self-rating questionnaires to predict Leary's Level I and II of personality in the presence or absence of ego threat. No reliability scores were reported from the SSCT. Two judges were used to rank all the protocols of four groups of 20 subjects. The data were analyzed from pooled judgments of SSCT and the TAT together. The author justified his pooling of judgments citing in his favor Sneiderman (1959) stating that agreement among tests interpreters is not to be expected when tests are used singly. The addition of an authority does not destroy the questionable exclusivity of the statement. Certainly using several tests the possibility of agreement is greater, but there is also true that agreement has been found by several authors working with individual tests and, in concrete, with the SSCT.

R. P. Vaughan (1963) made a study--partly reported in the first section of this chapter--on seminarians using the SSCT. This is the only study similar to the present investigation. Vaughan administered the SSCT to a group of 76 seminarians who remained in the seminary and to a group of 55 who left the seminary. He used ratings X, 0, 1 and 2 as in the standard Sacks. He used only one scorer. A mean score of 7.41 (SD = 4.19) was found for the group who left and a mean score of 3.43 (SD = 3.24) for the group which stayed. The difference of these means is significant at the .01 level. Vaughan also found 12 subjects who showed pathology among those who left while only four of those who remained showed pathology. He found in the group who left (1) fears of losing their soul and going to hell, (2) that they entered more of a sense of duty than of an appeal for religious life, and (3) more indecision. Vaughan study with the SSCT has the inconvenience that he used only one scorer and consequently no reliability study was reported. The use of the T technique to calculate the significance of the difference of the means with the Sacks' scoring system has the inconvenience of eliminating a great deal of scores since score 0 does not count--and it cannot--in the sums of scores. Vaughan's subjects are older than the subjects of the present study, consequently their mean scores are not perfectly comparable.

From the review of the literature on seminarians, some brief questions can be suggested to be answered by the present investigation.

(1) Is the SSCT a good differentiator helping the experimenter to obtain valid and reliable personality patterns for seminarians?

(2) How the personality dimensions of seminarians uncovered by the literature on the MMPI compares with the results from the SSCT?: (a) is the seminary group less adjusted in areas of doubts, anxiety, guilt, compulsivity

and defensive phobias (Pt); (b) in self-regarding attitudes and isolation (Sc); (c) in emotional controls and relation to persons in authority (Pd); (d) in heterosexual adjustment (Mf)?

(3) How the seminary group compares to the control group in measures of: (a) introversion, inferiority and guilt (Sward); (b) submissiveness (McCarthy); (c) father-dominance and mother-closeness (McAllister).

(4) What are the characteristics of the seminarians in terms of test attitudes and performance, defensiveness, spontaneity and hostility?

(5) How the drop-out group of Vaughan's experiment on the SSCT compares with the poorest segment of the seminary group?

Chapter II

Description of the Instrument

The test used in the present investigation is the original form of the Sacks Sentence Completion Test (SSCT) published in a book by L. E. Abt & L. Bellak (1950). A year before the publication of his test, Sacks (1949) reported a study with Form A and Form B of the SSCT. Form B is the same form A with all the items in the third person. The SSCT was developed by J. M. Sacks and S. Levy a psychologist of the New York VA Mental Hygiene Service. The test was designed to obtain significant clinical material in four areas of personality adjustment for the purpose of screening patients for therapy. It also provides significant content clues useful to make inferences about the dynamics of the patient's attitudes and feelings.

The SSCT consists of 60 stems distributed in four areas and 15 categories with four items in each of them. The test items, areas and categories are given in Appendix 1. The four areas covered by the test are family, sex, interpersonal relationships and self concept. The number of stems in each area varies from eight items in the area of sex to 24 in the area of self-concept. The inequality of distribution of items per areas makes difficult inter-areas comparisons.

The family area includes three different categories with four stems in each category: attitudes toward the mother, attitudes toward the father and attitudes toward the family unit. The sex area includes attitudes toward women and toward heterosexual relations. The area of interpersonal relationships includes four categories: attitudes toward superiors at work or school, attitudes toward friends and acquaintances, attitudes toward people supervised and attitudes toward colleagues at work or school. The six categories of the

area of self-concept are: fears, guilt feelings, attitudes toward own abilities, attitudes toward the past, attitudes toward the future and goals. Sacks said that "It is hoped that even when the subject tends to be cautious and evasive he will reveal significant material in response to at least one of the four items." (Abt & Bellak, 1950, p. 370) The present investigator eliminated all the individual categories with more than one item unanswered. The hope expressed by Sacks has now been confirmed by the research on the Sentence Completion tests. The interpreter of the SCT must be cautious about the manipulations of the test by role playing subjects.

In the construction of the test, Sacks followed a non-empirical approach. A group of 20 clinical psychologists were requested to submit three sentence completion items purporting to tap significant attitudes in 15 categories previously mentioned. The items received from the psychologists were increased with other items from the literature on sentence completion. A total of 280 items with a range of 14 to 28 items per category was obtained by this procedure. Again the 20 psychologists were asked to select the four most significant items per each category. The most frequently chosen items became the final 60 test items. Sacks did not give any table with the frequencies of selection of the items. He did not attempt any empirical validation of the items or any check on the amount of projection or stereotyped responses elicited by them other than the study mentioned in the literature about the level of projection tapped by items in the first person against items in the third person.

1. Treatment of the Response

There are two main types of interpreting the Sentence Completion test responses in terms of content analysis: (1) the impressionistic method and

(2) the semi-objective method. An impressionistic approach to SCT was the method used originally when these tests began to be used. Sacks, as Stein and Forer, used a type of impressionistic method; nevertheless he organized his stems into categories and offered a rating scale of three points. His system is very close to the semi-objective approach of Rotter (1950) and Rohde (1957).

Sacks' rating scale consists of the following scores and interpretation:

2 - severely disturbed. Appears to require therapeutic aid in handling emotional conflicts in this area;

1 - mildly disturbed; has emotional conflict in this area, but appears able to handle them without therapeutic aid;

0 - no significant disturbance noted in this area;

X - unknown; insufficient evidence.

This four points scale is practically a two points scale for maladjustment and, consequently, very rudimentary for statistical computations. The best technique it allows is the chi-square. The scale is useful for practical purpose. Researchers have preferred the Rotter or the Rohde Sentence Completion test whose only advantage over the Sacks' is a little more sophistication in the scoring system and a little less structure in the stems. The present literature is in favor of the more objective methods since the impressionistic approach involve more risk and uncertainty (Golberg, 1965, p. 796)

2. Reliability of the SSCT

Sacks reported the following data in the reliability of his test. Three psychologists rated 100 protocols in each of the 15 categories for degree of disturbance. Two psychologists out of three were in agreement in their ratings in 92 percent of the 1,500 ratings. The three psychologists agreed in

40 to 45 percent in all of the ratings. Since the Lorge's studies (Lorge, 1941) did not show good split-half reliability, and some other studies on test-retest reliability did not obtain better results, no other type of reliability but inter-scorer agreement was reported. Inter-scorer reliability is considered one of the lost indices of reliability. Rotter & Willerman (1947) using seven scorers and a more objective method than Sacks', found a scorer average intercorrelation of .89 in a total of 50 records. The failure of the split-half reliability with the Sentence Completion tests is due to their projective nature; stems very similar in their wording may elicit very different responses in content. Rotter, Rafferty & Schachtitz (1949) advocated for the method of inter-scorer reliability in the basis of the possibility of subjective evaluations in the part of the scorers and suggested that each item should be interpreted independently. The investigator thinks that it is impossible for a rater who is reading a response after another to avoid the contamination of the different items and even though he could manage to avoid it, this would be a renunciation of the valuable contribution of the Sentence Completion tests in a holistic interpretation. The use of Pearson product moment correlations to evaluate inter-scorer reliability is justified in the case of the objective scoring system used by Rotter but it is less applicable to the SSCT.

Stephen (1960) reported that the stems with the lowest retest reliability were those rated by the judges as most sensitive to changes in adjustment. The present investigator also found higher inter-scorer reliability in those items with less clinical significance. Goldberg stated that "The instability of the sentence stems is a function of true personality change rather than random variability". (Murstein, 1965, p. 797) Some of these studies can be

criticized on the basis of using too short lapses of time to permit the interpretation of personality changes. Possibly the variations found in the retest process are rather due to situational changes or random variability. In any event, the fact that the test-retest reliability is low while the validity is high is a verified fact which provokes more studies on item analysis and variability control of Sentence Completion tests. High and low indices of agreement should be given per categories to evaluate the reliability of the inferences and predictions made from them.

3. Validity

Comparing the ratings of the three psychologists who rated the 100 subjects of this original study with the evaluations of the psychiatrists who had no knowledge of the SSCT responses, Sacks found contingency coefficients of .48 to .57 with standard errors of .02 and .03. The places of agreement were eight of the following 13 categories: attitudes toward the mother, father, family unit, heterosexual relations, superiors, colleagues, future and goals. These are the most valid categories. For a group of 50 subjects, the psychologists wrote interpretative summaries of the 15 categories which were rated by the psychiatrists according to their agreement or partial agreement with the clinical evaluations of the same subjects. No statistical results were given for these comparisons. The validity studies made on the SSCT compare favorably to similar validation studies done with other methods of personality evaluation as projective tests. The SSCT validation studies are also significant in view of the results obtained by other Sentence Completion investigators as Botter & Willerman (1947) who obtained a triserial coefficient of .61 between their version of the test and the criterion, and Harrison (1940) who found 75% agreement between inferences made from TAT protocols and clinical records.

An item analysis of the SSCT reveals some important factors to understand its validity. Some of the items are heavily weighted on negatively toned stimulus words and, consequently, they elicit defensive reactions or maladjusted responses. This is a criticism often found in the literature on Sentence Completion Tests. (Meltzoff, 1951). Some authors (Rotter & Raferty, 1950) had characterized their Sentence Completion Test as "unstructured". Sacks used rather structured, content-determined items. He preferred to concentrate in a short number of psychological dimensions to avoid dissipation and to make possible the comparison of groups. Nash (1953) said that the structured stems allows the interpreter to study the stimulus situation in order to evaluate the role of the response in the total personality pattern of the subject. On the other hand, content structuring do not elicit always relevant responses and may threaten the subject.

Consequently, more investigation is needed on what constitutes an unstructured stimulus, and its effect in the test performance.

There is a lack of experimentation in the degree to which the different stems of a given category contribute to the formulation of clinical hypothesis and the influence of their order in the scorer's judgements. It is possible that two scorers are giving the same rating to a category on the basis of different items or of the same items in a different context. The above mentioned differences found in the productivity of items in the first or third person is another example of the vast possibilities of investigation on stimulus structure in the Sentence Completion tests. Also, it has been found that poor stems often refer to activities with little emotional involvement and to past situations while good stems refer to hostilities, worries, troubles, fears and present and future situations. Murstein (1965) showed the necessity

of controlling the different variables when studying the stimulus structure. Analyzing an article by Crowell & Lundy (1954) about the superiority of items in the first person, Murnstein noticed that this superiority breaks down by the fact that all the items in the first person were negative and it had been found before that negative items are more productive. The distribution of negative items in the SSCT is an important fact to interpret some categories as fears, guilt and attitudes toward own abilities which are constituted in almost 100% by negative stems.

4. Advantages and disadvantages

The position of the SSCT half way between the impressionistic and objective methods gives it the advantages of using both a single variable (global maladjustment) and particularized scoring evaluations (rating per areas and categories). The methods that use only single variable approach as the Rotter have the danger of sterility and triviality. When two groups are compared in the Sentence Completion test, it is interesting to know how much they differ but also in which areas and why they differ. The subject may be reluctant or defensive in some areas of the test but projecting a lot of valuable clues in other zones of his personality. A single variable test is not designed to evaluate these differences. The subject may also give only a very poor response whose qualitative value is greater than its quantitative amount. Besides, the analysis of a positive or a negative response in the context of adjacent areas or in the function of the whole test is more meaningful than an objective approach based merely in the counting of frequencies of positives and negatives responses in order to an overall evaluation. The SSCT makes a good job in these cases provided that the danger of unjustified extrapolations are avoided when comparing different areas and categories. On the other hand, the emphasis

on a single score of adjustment, as in Rotter, has the advantage of increasing the test length and, therefore, the reliability (Guilford, 1954). As Zimmer (1956) stated, the single variable method increases the possibility of a great number of responses relevant to the different aspects of the measured variable and consequently contributes to the accuracy of prediction. But it is also true that tests as those of Rohde (1946) and Rychlak (1957) attempting to assess a number of variables have the advantage of a more rich interpretation and are free of the counteracting and neutralizing effects of positive and negative scores as in the Rotter.

Some disadvantages are inherent to the technique of the Sentence Completion tests. They are so easy to be constructed at a face validity that there has been a proliferation of Sentence Completion tests which has retarded the systematization and establishment of objective norms and standard procedures. Some investigators claim to the projective nature of the test as an excuse to develop a parametric body of information about the test. Sacks did not publish norms to be used with his test. This makes difficult the use of the test outside an individual clinical setting. He did not publish either mean scores or cutout points. He seems to believe more in the localization of problem areas while Rotter assumes that a disturbance is generalized and ready to be manifested in many areas or items. Golberg (1965) pointed to the absence of a theoretical rationale in the use of Sentence Completion tests. Sentence Completion tests are applied to many uses without proper evaluation of what they are measuring. There are many gratuitous variations in structure and applications. The lack of cross validation studies, normative data and standard procedures has contributed to the disrepute of the Sentence Completion tests giving the wrong impression that they are vague and primitive psychological

tools. The SSCT has been used with very little variety of groups and this makes difficult the evaluation of the data obtained from them.

Another weak point of the SSCT --already noted in passing by-- is the cluster of negative items in some areas and categories which tend to create a wrong impression of disturbance in some areas of the personality of the subject. Rotter (1949) said that a person can respond positively to a negatively stated item but this does not preclude the bias toward maladjustment that a proliferation or a clustering of unbalanced negative responses may create.

Some of the SSCT items are too stereotyped ("Before the war") or too provocative ("My greatest mistake") eliciting in the part of the subject defensive attitudes which preclude the revelation of valuable and significant material. An interesting and practical research project would be the measurement of defensiveness and role playing in responding to the SSCT by means of similar devices as those developed for the MMPI.

Talking about the Sacks' items in the first person, Meltzoff (1951) questioned the legitimacy of calling such an instrument as the Sentence Completion technique a projective device.

Chapter III

Procedure and Experimental Design

1. Subjects

The Sacks Sentence Completion Test was administered to a group of 72 minor seminarians and to a group of 79 male seniors of a Catholic high school. Both groups were of the same educational level and came from a very similar religious, social and economical backgrounds in the Mid West of the United States. The age of the seminarians ranged from 20 to 16 years with a mean of 17.58, and the age of the high school seniors extended from 19 to 16 years with a mean of 17.08 years. The experimenter could not obtain a record of the mental capacities of the subjects. It would have proved of value since it could have classified certain problem areas. It is expected, for example, that a low intellectual capacity would be more threatening for a seminarian than for a high school boy since the former had already taken a vocational and very specific orientation in which intellectual capabilities are an indispensable prerequisite.

The 79 subjects of the high school group were selected at random from an original pool of 100 high school seniors. These 100 students were selected as a representative sample of a list of 332 students which formed the population of seniors of the school. They were drawn by random selection from the different sections of the English class division. The pool students had been previously distributed in the different sections by random order. The subjects were invited to participate freely in the group testing which was presented to them as an "attitude sampling" for research purposes to which they would contribute anonymously.

The records of the seminarians were collected from the seminary's psychological files accessible only to the psychologists.

Comparing the test conditions of both administrations, the investigator expected the seminary group to have been more defensive, anxious and prone to role playing, trying to give a good impression. Meltzoff (1951) has proved that the subjects can censor their responses to a sentence completion test to a considerable degree. This possible manipulation of the test on the part of seminary group has to be taken into account to reduce the good impression their protocols may produce.

2. Procedure

The SSCT was administered following the standard and simple procedure set up by its author. The subjects were asked to read and to follow the instructions typed in the upper part of their test and to ask any questions they had about them. The instructions are the following:

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

When the subjects are ready to respond to the first stem, the beginning time should be noted in the upper right-hand corner of the page and when he turns the paper in, the finishing time should be marked in the same place. In this experiment, no control of time was employed, and no inquiry was conducted about the significance of cryptic or relevant responses.

For the purpose of scoring, the Rating Sheet devised by Sacks was used with the items distributed by areas and categories. A copy of this Rating Sheet is reproduced in the Appendix. The raters evaluated each of the 15 categories of the test using for their judgment the responses to everyone

of the four stems included in each category. Sacks added Interpretative Summaries for every category and a General Summary of the SSCT findings. This Summary includes: (1) a statement of those areas in which the subject shows the most disturbed attitudes; (2) a description of the interrelationships between attitudes with respect to content illuminating the factors in the case. All these summaries were omitted in the present study because it insists on objective and statistical computation of frequencies of responses rather than on individual interpretation of the protocols. Besides this reason, the investigator thinks (see also Goldberg, 1965) that generalization cannot be made into the personality dynamics and defense system of the subjects going beyond the limited and particularized sample of verbalized behavior manifested in the protocols.

The investigator conducted a pilot project to test the inter-scorer reliability using a group of 20 protocols (10 seminarians and 10 high school students). The scorers of the pilot experiment were three psychologists --one of them was not Catholic. They were in agreement in 50% of the ratings. In the study reported by Sacks, his three scorers were in complete agreement in 40 to 45% of the ratings. They would be expected to agree by chance in $1/27$ of the times or less than four times in 100. To increase the percentage of agreement, the experimenter --a Catholic priest-- decided to score all the protocols himself and select as reliable those categories in which three out of four scorers agreed. The percentage of agreement was then raised to 77%.

Each of the scorers was given copies of the Rating Sheet with responses of all the protocols ordered per categories. The Rating Sheet of each subject was identified by a code number to hide from the scorer the group identity of the subject. Sometimes, this procedure was superfluous because the nature of

the response of the subject betrayed his origin. There were frequent references to seminary life and ideals in the protocols of the seminarians. Each scorer was given a copy of the scoring samples Sacks published in the back of his test to acquaint the scorer with the scoring system. They were instructed to fill in the rating only and not to score those categories in which there was more than one response missing. No other effort was made--as some experimenters on the Sentence Completion methods did before--to train the scorers in the rating system giving them extra trials instructions or information about other scores' ratings. The experimenter wanted to use ordinary "Standard" conditions of testing and scoring.

The final computations showed an overall agreement of three out of the four scorers in 74% of 2,265 ratings. This result compares favorably with those obtained by Sacks who reported 92% agreement of any two out of three scorers and from 40 to 45% three scorers agreement. Kingsley (1961) reported, using the SSCT, 74% agreement in two out of three scorers. The reliability was not uniform along the test. The scorers were 77% of the times in agreement in the protocols of the seminarians and 71% in the protocols of the high school students. The reliability was even more at variance according to the different categories of the test. The reliability was as high as 92% and 85% in categories 9 (attitudes toward colleagues) and 14 (attitude toward the future) respectively, and as low as 55% and 58% in categories 10 (fears) and 11 (guilt) respectively. The low validity of these two categories, besides their inferior reliability, puts some limitations in the interpretative inferences made from them. The items of these low reliability categories reach deep, sensitive and very personal levels of the individual. Consequently, a lot of resistance, ambiguity and variability is to be expected in the responses

to these categories. The judgements given by the scorers is equally affected by the same factors contributing to a major subjectivity in the interpretations. The present investigator found a great deal of discrepancy among the scorers in rating responses such as "I am afraid of the dark", "I am afraid of women", "I am afraid of snakes" and "I am afraid of the death". These responses can be interpreted differently according to different psychological theories and according to the assumptions each scorer made about the age and the vocational orientation of the subjects.

3. Statistical Treatment

Sacks' rating scale measures two opposite variables using three scores: 0 for adjustment and 1 and 2 for maladjustment. This scoring system presents two main difficulties from a computational point of view: (1) score 0 does not have substantial numerical value to be used by means of a numerical transformation, it introduces a different dimension in the scale (adjustment) which cannot be treated together with maladjustment unless an assumption of continuity is made between the two. To avoid these difficulties, the data of the experiment were treated not as numerical scores, but as frequencies of different scores. The most appropriate statistical computation for this type of data in the form of frequencies is the Chi-square technique. The Chi-square is the method most commonly used in the experiments with the BSCT. Since in some of the Chi-square cells did not fulfill the minimum of requirements set up by Siegel (1956, p. 110), adjacent categories 2 and 1 had to be combined in order to increase the number of expected frequencies. Siegel calculated that for df greater than 1, fewer than 20% of the cells must have an expected frequency of less than five and no cell can have an expected frequency of less than 1. All the statistical computations were made at the second decimal point. Con-

tingency coefficients were computed from the Chi-squares to evaluate the degree of adjustment or maladjustment of the groups. The contingency coefficients have the limitations of not being comparable to other correlation coefficients or to other contingency coefficients from tables with different number of cells.

For the purpose of a graphic representation and analysis of the results of both groups, maladjustment mean scores per categories were computed. These scores have the limitation of being confined to only two scores (1 and 2) of the rating scale range.

Chapter IV

Results

The elimination of unreliable ratings was the first step in the processing of the data. Groups of four ratings with less than three scorers agreement were discounted. Otherwise, the experimenter would not know which was the real score in cases of tied disagreements. This procedure raised the reliability to 100% inter-scorer reliability. The original total of 2,265 ratings were reduced to 1,650 reliable ratings. In all the computations only reliable ratings were used, except in the calculations of the total mean scores per subjects, groups and subgroups. Table 7 shows the frequencies of ratings in the 15 categories of the SSCT in both groups. Since the inter-scorer agreement was lower when the ratings were higher, the number of ratings 1 and especially 2 eliminated, was noticeable but this procedure was preferred in view of the objectivity and accuracy wanted in an experiment with the SCT, in spite of the fact that the lack of sufficient scores did not allow further statistical computations. The category more highly weighed[†] with severe maladjustment scores was category 2 (attitude toward the father) with 16 frequencies and the less severely weighed[†] categories were: 6 (attitudes toward colleagues), 13 (past), 15 (goals) with no frequencies and 5, 8 and 14 (attitudes toward heterosexual relations, subordinates and future, respectively) with only one frequency. The mild maladjustment ratings (score 1) were clustered specially around categories 10 (fears) with 64 scorers, 2 (attitudes toward the father) with 52 scores, 11 (guilt) with 48 scores and 1 (attitudes toward the mother) with 45 scores. The score 1 frequencies were lower in categories 13 (attitudes toward the past) with 10 scores and 15 (goals) with 13 scores. The categories of well-adjustment (score 0) were 8 (attitudes

Table 7

Frequencies of Ratings in the 15 Categories of SSCT in Seminary Group (N=72) and the High School Group (N=79)

Groups	Rating	Mother	Father	Family	Women	Sex	Friends	Superiors	Inferiors	Colleagues	Fears	Guilt	Abilities	Past	Future	Goals
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Seminarians	2	1	4	1	1	0	0	0	0	0	3	1	0	0	1	0
High School	2	5	12	8	7	1	0	6	1	2	3	4	3	0	0	0
Total		6	16	9	8	1	0	6	1	2	6	5	3	0	1	0
Seminarians	1	17	22	11	17	7	7	7	9	12	25	29	18	5	10	3
High School	1	28	30	16	15	13	10	14	13	8	39	19	20	5	16	10
Total		45	52	27	32	20	17	21	22	20	64	48	38	10	26	13
Seminarians	0	31	26	52	38	53	56	49	82	56	12	16	32	55	53	49
High School	0	24	17	33	23	37	50	35	40	61	4	16	29	46	51	21
Total		55	43	85	61	90	106	84	122	117	16	32	61	101	104	70

2=severely maladjusted

1=mildly maladjusted

0=well adjusted

toward subordinates) with 122 frequencies and 9 (attitudes toward colleagues) with 117 frequencies.

Using the Chi-square technique, inter-group differences were tested for significance. Chi-square is the best method for data given in the form of frequencies, and particularly applicable to Sacks' rating system who measures at the same time two opposite dimensions--adjustment and maladjustment. Since rating 0 does not have substantial arithmetical value, the calculation of means and standard deviations needed when the T test technique is used, would "ipso facto" throw away the rich amount of information enclosed in rating 0, otherwise the most frequently given rating. For this reason, the T test method was discounted. Rotter partly obviated this difficulty using negative scores for maladjustment, positive scores for adjustment, and 0 scores for neutral or ambivalent responses. Some inconveniences of Rotter's method will be discussed later.

The Chi-square values are given in Table 8. There are three significant differences at the .01 level of confidence in categories 3 (attitudes toward family), 7 (attitudes toward superiors) and 15 (goals). One significant difference at the .02 level was found in category 10 (fears). Three significant differences were shown at the .05 level in categories 1 (attitudes toward the mother), 2 (attitudes toward the father) and 5 (attitudes toward heterosexual relations). The highest Contingency coefficients expressing substantial amount of association between the variable adjustment and the seminary group were .333 in the category goals, .268 in attitudes toward superiors and .262 in fears. The lowest Contingency Coefficients were found in attitudes toward the past ($C^2=.020$) and in attitudes toward subordinates ($C^2=.045$).

Table 8

Chi-square and Contingency Coefficient in the 15 Categories of the SSCT

Category	Chi-square	df.	C	P (<)
1 Mother	4.72	1	.206	.05
2 Father	6.65	2	.235	.05
3 Family	7.85	1	.246	.01
4 Women	3.06	1	.172	.10
5 Sex	4.45	1	.196	.05
6 Friends	0.77	1	.078	.50
7 Superiors	8.56	1	.268	.01
8 Inferiors	0.19	1	.045	.70
9 Colleagues	0.31	1	.047	.70
10 Fears	6.37	1	.262	.02
11 Guilt	0.34	1	.062	.70
12 Abilities	0.64	1	.079	.50
13 Past	0.05	1	.020	.98
14 Future	0.87	1	.089	.50
15 Goals	10.28	1	.333	.01*

* (about .001)

Taking only into account maladjustment ratings, the means per groups and categories were calculated and plotted in a graph to which were added the Chi-square levels of significance of the difference between the groups. The calculation of maladjustment rating means was made using only reliable ratings. The sum of scores 2 and 1 was divided by the total number of scores 2, 1 and 0 according to categories. Table 9 shows the maladjustment rating means in the 15 categories, the average means and differences of the means. The average amount of maladjustment for both groups together measured by the average means per categories was higher in categories 10 (fears) with a mean of .87; 2 (father) with a mean of .75, and 11 (guilt) with a mean of .68. Maladjustment was low in categories 13 (past) with a mean of .08, 6 (colleagues) with a mean of .13 and 15 (goals) with a mean of .17. The distantiation in maladjustment in both groups was more accentuated in categories 2 (father) with a mean difference of .38; 3 (family) with a mean difference of .36 and 1 (mother) with a mean difference of .28. It was lowest in categories 13 (past), 9 (colleagues) and 11 (guilt) with mean differences of .01, .02 and .02 respectively. Figure 1 presents the profiles of the seminary group, the high school group and the total group obtained on the basis of maladjustment rating means.

An important aim in the present investigation was the calculation of the amount of homogeneity of the groups in order to interpret the meaning of the differences found between the groups. The total maladjustment score of all of the subjects was calculated counting the four ratings each subject was given per category, prorating the ratings when some items were not answered and obtaining the mean from the four ratings given by the four scorers. Then, the 20 subjects who scored higher in maladjustment and the 20 subject who scored lower--approximately 2/3 from each group--were selected arbitrarily to form the

Table 9

Maladjustment Rating Means in the 15 Categories of the SSCT
in the Seminary Group (N=72) and High School Group (N=79).-

	Mother 1	Father 2	Family 3	Women 4	Sex 5	Friends 6	Superiors 7	Inferiors 8	Colleagues 9	Fears 10	Guilt 11	Abilities 12	Past 13	Future 14	Goals 15
Seminarians' Mean	.38	.55	.20	.41	.11	.11	.12	.21	.18	.77	.67	.36	.08	.19	.05
High School seniors' Mean	.66	.93	.56	.64	.29	.16	.47	.27	.16	.97	.69	.50	.09	.23	.32
Average Mean	.52	.74	.38	.52	.20	.13	.28	.24	.17	.87	.68	.43	.08	.21	.17
Difference of Means	.28	.38	.36	.23	.18	.05	.35	.06	.02	.20	.02	.14	.01	.04	.27
Chi-square level of significance	.05	.05	.01	.10	.05	.50	.01	.70	.70	.02	.70	.50	.98	.50	.01

Chi-square Level of Significance

.05 .05 .01 .10 .05 .50 .01 .70 .70 .02 .70.50 .98 .50 .01

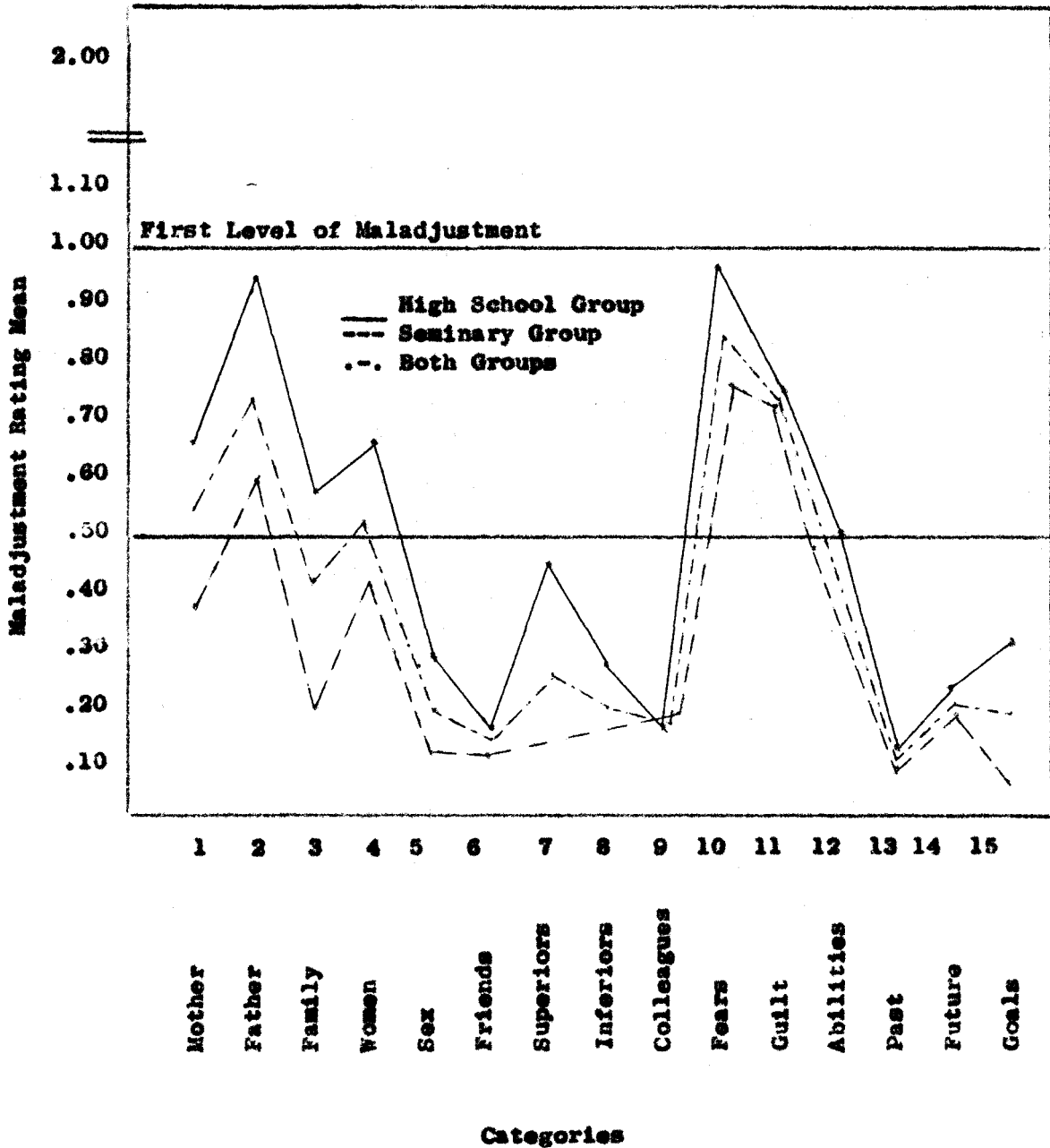


Fig. 1. Profiles of a seminary and high school groups based on maladjustments rating means per categories on the SSCT.

high maladjusted and the low maladjustment subgroups. The total ratings scores per groups and subgroups, compared with similar findings given by Vaughan (1963) are represented in Table 10.

There is a certain agreement between the result obtained by Vaughan and the present study. This similarity is still more encouraging if the differences of age of the subjects of both studies are taken into account. The similarity of results allows to identify Vaughan's dropping out group with the seminary subgroup highly rated in maladjustment. Venturing a tentative cutting point, the investigator would suggest a further psychological examination of those seminarians whose total scores in the SSCT were around the 10 score.

The differences found in the subgroups are plotted in Figures 2 and 3 for the seminary and the high school subgroups respectively.

Table 10

**Rating scores per Groups and
Subgroups Compared with Vaughan's scores**

Present Experiment (4 raters)		Vaughan's Experiment (1 rater)	
Minor Seminararians		Major Seminararians	
High Subgroup	M = 11.36 (N=20)	Drop-outs	M = 7.41 (SD=4.19) (N=55)
Low Subgroup	M = 2.26 (N=20)	Non Drop-outs	M = 3.43 (SD=3.24) (N=76)
Whole group	M = 6.11 (N=72)		
High School Seniors			
High Subgroup	M = 14.38 (N=20)		
Low Subgroup	M = 3.56 (N=20)		
Whole Group	M = 5.58 (N=79)		

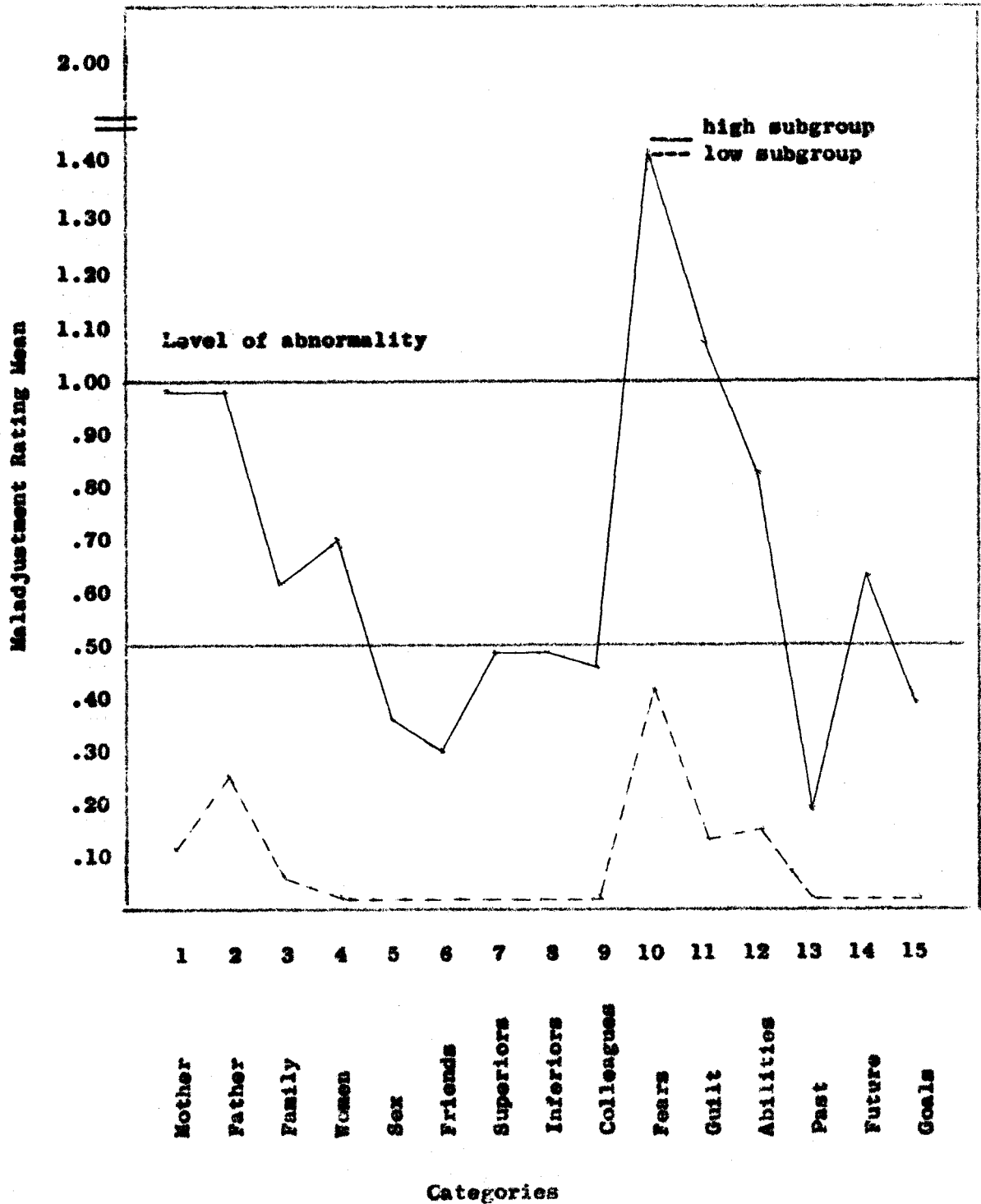


Fig. 2. Profiles of high (N=20) and low (N=20) maladjustment subgroups of seminarians on 15 categories of SSCT.

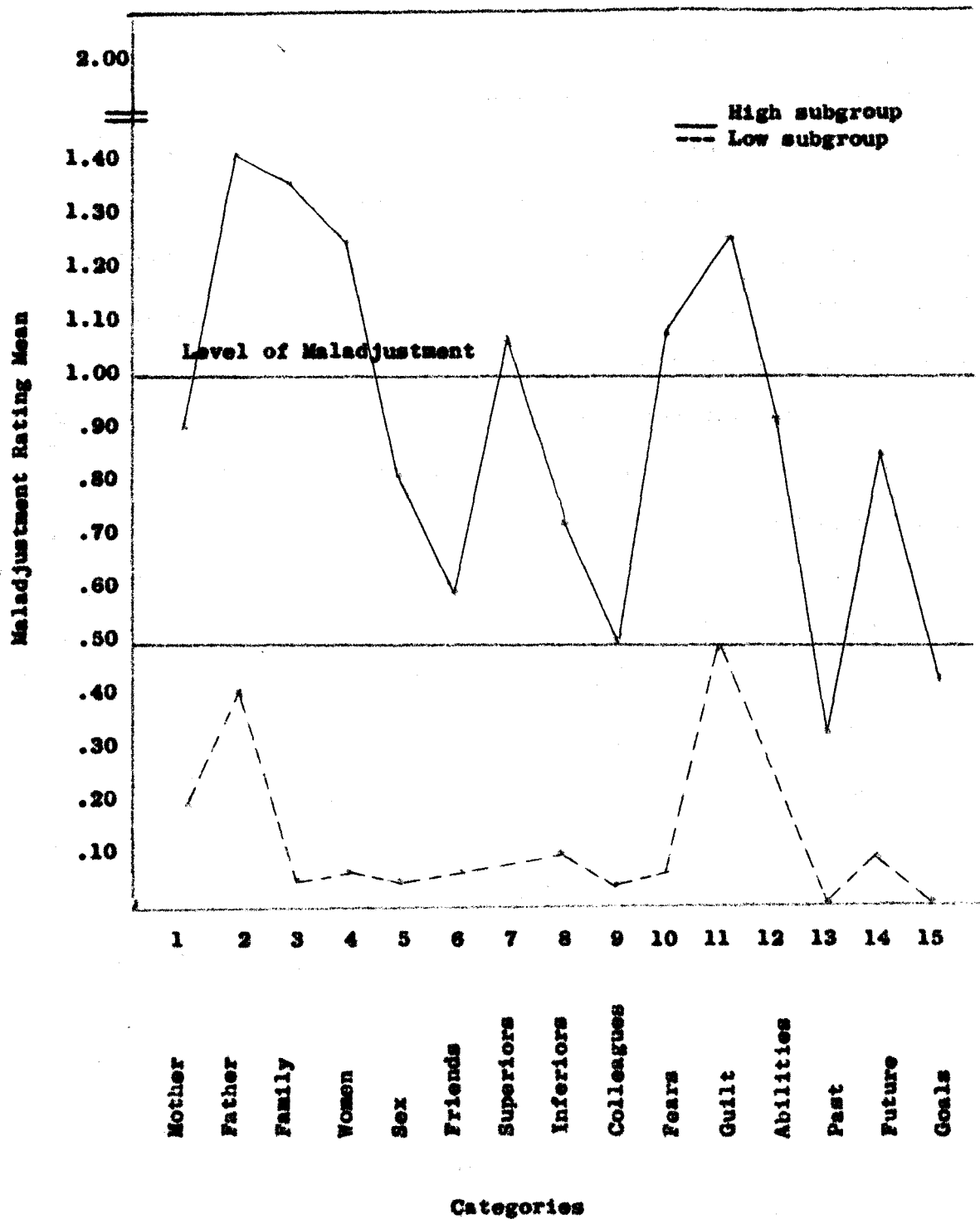


Fig. 3. Profiles of high (N=20) and low (N=20) maladjustment subgroups of high school seniors on 15 categories of SSCT.

Chapter V

Discussion of the Results

The most striking factor the analysis of the results brings up is the amount of significant variations between the groups, and the consistent superiority of the seminary group in terms of adjustment over the high school group in all the categories but one. These differences are more surprising in view of the results obtained in the literature with similar contrasting groups using other psychological devices. This factor sets up before hand questions about the validity of the SSCT with the groups under experimentation and the nature of the measurements. The investigator discovered that the observed variations--none of them exceeding the .001 level of significance--are not as spectacular as they appear to be because they are contained within the range of normality. The variations are below the mean score 1 which is the level for a mild disturbance--a mild disturbance was defined by Sacks as a conflict which can be handled by the subject himself without therapeutic aid. On the other hand, the observed variations can indicate the potentiality of the SSCT as sensitive instrument which can tap small personality and attitudinal differences below the level of pathology between the groups.

1. Inter-group Differences

The maladjustment cluster for both the seminary and the high school groups are located mainly in two areas (1) the family area with average maladjustment means of .52, .74 and .38, and (2) the first half of the self-concept area (fears, guilt and own abilities) with average maladjustment means of .87, .68 and .43. Teenagers' struggle for independence from home and crystallization of self-concept were factors reflected in these peaks. The family profile of

the seminarians shows them as better adjusted than the corresponding high school seniors in the family area. The seminarians show less negative feelings toward their parents, feel closer to them, better understood and experience comfort and centeredness in the family unit. These results in the family area are reinforced by a higher validity found in the studies on this area. Nevertheless, the seclusion of the seminary life and the remoteness from daily familiar frictions could have contributed to the better picture presented by the seminarians in this area. On the other hand, the daily exposure to the stress and irritation of living at home was a factor which elevated the scores of the high school group in the family area. In both groups there is a noticeable peak on the father category. It could have been influenced by the uneven distribution of negative items in the family area as there is only a negative stem in category 1, while there are three in category 2 and none in category 3. This interpretation is supported by Meltzoff's findings who discovered dealing with father, family and brother stimuli 74% of well-adjusted responses and 15% of maladjusted responses when the items were positive and 85% of maladjusted responses and 1% of adjusted responses when the items were negative. Another possible explanation for the elevated scores in the father category in both groups and especially in the lay group could be the temporary resurgence of the Oedipal conflict often noticed in adolescents jealous of the father independence and struggling for a sex partner.

The second peak of maladjustment was located around the fears-guilt-own abilities categories. The average maladjustment means for these categories were .89, .65 and .43 (fears, guilt, own abilities, respectively). Here the high school group deviated in the direction of poor adjustment in area 10- (fears) while both groups were equally troubled by guilt feelings. The meaning

of these results is lessened by the low reliability and validity of categories 10, 11 and 12 and the possibility of defensive attitudes on the part of the emotionally involved seminarians. The relative difference between the two main problem peaks (family and self-concept) is larger in the part of the seminarians indicating a displacement of problems to the self-concept area when social-familial threats are removed.

Three other significant differences were observed. In category 7, the seminarians were lower at the .01 level of significance--a sensible result in accord with the submissive attitude and cautious defensiveness reported in the literature on seminarians. More overtly aggressive and negativistic attitudes were shown by the lay group less vocationally involved and struggling, with less emotional controls, against teachers and superiors.

The last significant difference was in the 15 category ($P = .01$), a category otherwise enriched with high indices of reliability and validity. The highest Contingency Coefficient ($C = .333$) favoring the seminary group is a reflection of its initial, fervent idealism. This idealism is more a pure emotional factor than an index of better personality adjustment.

In the category 5 (heterosexual relations), the good adjustment results of the seminarians is betrayed by probable repressive defensiveness precipitated by the nature of the stems construction. To stem 41 "If I had sex relations", the seminarians often responded in the form of "I won't because my vocation does not allow me" with minimal ego involvement; to stem "My sex life", they responded by "Is nil" thus escaping 50% of the items of the category. The control group was as a rule, bolder in this category manifesting "show off" and "Donjuanian" attitudes. SSET sex category seems inadequate to measure differences between the two groups of the present study.

The results, as a whole, appear a little exaggerated and unbalanced when an attempt is made to relate the different areas and categories to discover patterns of personality typical of the seminarians, due to the unevenness and stereotypes of the SSCT categorizing system. Besides, the absence of normative data on the SSCT on adolescents obscure the interpretation and evaluation of the maladjustment profiles.

To what extent the upper mentioned intergroups differences are true personality differences, defensive attitudes or a by-product of the seminary training is an invitation to further investigation with the test. Some other variables are not well controlled by the present sophistication of the instrument and the limited purpose of this investigation. A study using content analysis would prove very revealing.

2. Intra-Group Differences

The breaking down of the seminary and the high school groups into high and low maladjustment subgroups brings up a limitation to the conclusions drawn from the intra-group comparisons. The subgroup splitting showed noticeable lack of homogeneity in the two original groups. Bier also found more intra-group than inter-group differences concluding that adjustment is something which cuts through vocational lines. On the other hand, the lack of homogeneity has some predicting bearing in the separation expected to happen in the future of the portion of the seminary group which will drop-out. The parallelism between Vaughan's drop-out and remaining groups and the high and low maladjustment seminary subgroups substantiates the inference.

In spite of the lack of homogeneity, the fact of the differences in profiles between the two poorly adjusted subgroups discovers that the screening process of the minor seminary has had noticeable effect in eliminating mal-

adjusted subjects though it is still something to be carried on further. The poorly adjusted high school subgroup has a profile noticeably "worse" than its correspondent seminarians subgroup, while the two well adjusted subgroups are very alike. Inspecting both elevated profiles, it is apparent that, with the exception of the two less valid and reliable categories 10 and 11, none of the seminary subgroup categories exceeded the first level of maladjustment while six categories of the high school subgroup are above the first level. The seminary group is as a whole more homogeneous than the high school group since the seminary subgroups profiles are symmetrical or parallel while the high school subgroup profiles are not. There is a striking difference between the almost similar profiles of seminary and high school well-adjusted subgroups. "Fear" is high and "guilt" low in the well-adjusted seminary subgroup and exactly the opposite is found in its correspondent well-adjusted high school subgroup. This suggests a possible accentuation of more primitive defenses (fear) when more elaborated or "sublimated" defenses (guilt) are precluded. This is confirmed by the high elevation of category "fear" (the highest in all the subgroups profiles) in the poorly adjusted seminary subgroup. This prominence of the fear peak could have some bearing on the often observed fear of abandoning the convent as a displacement of a deeper feeling of guilt, or the entering to the convent for "fear of the world" as a disguised punitive mechanism for remorse of conscience.

Statistically, the subgroups discrepancies can be mitigated by the small number of subjects compared, the elimination of many ratings in favor of the reliability and the suppression of the numerous frequencies of scores 0 which did not modify the sums of scores per categories. The Chi-square technique then would have been preferable to compare the subgroups, but the number of

high frequencies was too small to be entered into the cells. The agreement observed between the four scorers decreased when the scores increased. In other words, the scorers were less in accord in assigning scores 2 or 1 than in assigning score 0 to categories. This reduction of "bad" scores made that intergroup and especially intragroup differences were attenuated. The differences would have been more striking were all the scores have been used. This internal variability of the test puts some caution to the interpretation of the results. A similar variability has been observed in retesting process. Authors as Murstein (1965) have been inclined to attribute this variability to true changes in the personality of the subjects. A great deal of this retest and intratest variability may also be attributed to the structure of the test and to the nature of the items because the subjects can sometimes sense and avoid some of the "revealing" items, causing variabilities in the group profiles. Longitudinal studies with the SSCT on seminarians would help to clarify the nature of the puzzling variability in the results from the SCT.

3. Comparison with results from other studies

The suitability of the SSCT for candidates to the priesthood is mitigated by the possibility of manipulations of the test by the subjects, till special correcting devices are introduced.

The elevation of seminarian profiles found in the MMPI was not confirmed by the present investigation. The MMPI was constructed with a clinical orientation to detect psychopathology while the SSCT was devised in a more "inocuous" and general basis. Partial confirmations of high scores in the Pt scale as an indicator of guilt, anxiety, phobias, compulsivity was found in the elevation of categories 10 and 11 (fears and guilt). The high Pd scores found in seminarians was contradicted by the amount of adjustment found in category 7

(attitudes toward superiors) but the seminarians were expected to be defensive and role playing in this category. The questionable sexual maladjustment associated with scale Mf was not confirmed by the low scores in category 5 (heterosexual relations). The elevation of seminary profiles on scale Sc partly checks with the self-regarding attitude manifested by the high ratings on the SSCT triad 10, 11 and 12 (fears-guilt-own abilities). In reality, there is no particular category in the SSCT that corresponds to the Sc clinical scale. The disagreement in degrees of conflicts between the MMPI and the SSCT--MMPI scores of seminarians being higher than the general population's and SSCT scores of seminarians' being lower than high school's--and the partial agreement in both tests in some types of conflicts suggests that probably both instruments may measure some similar areas of personality but at different levels, being the MMPI level in the dimension of pathology and more direct behavior.

Burke (1947), Sward (1931) and McCarthy (1942) found the seminarians prone to introversion, inferiority and guilt feelings, and submissiveness. These trends are also shown in the seminarian profiles elevated on categories 10, 11 and 12 and lowered in attitudes toward superiors (7) and inferiors (8).

McAllister (1961) father-dominance and mother-closeness trends found in the clergy, has a resemblance to the SSCT triad 1, 2, 3 (mother, father, family) with the peak in category 2. But, again, this type of profile is neither higher than that of the contrasted group nor different. The most significant difference between the groups in category 15 (goals) checks with Markert's (1963) findings about the goals of the seminarians and the desirability associated with expectations from the priests.

Close similarity was found between the checking of problems by seminarians in the Mooney Problem Check List as reported by Kobler (1964) and SSCT results. Areas such as home and family, courtship and sex, the future and vocation with low percentages of problems in the Mooney List are equally low in amount of conflicts in the SSCT (categories 3, 5, 14, 15). Mooney's areas of adjustment to College work and personal-psychological relations are high in percentage of problems. Their vaguely correspondent categories in the SSCT --12 (abilities) and 11 (guilt) --are also equivalently high. There is a discrepancy between Mooney's social-psychological relations checked high and the low SSCT categories 6, 8 and 9 (friends, inferiors and colleagues).

Finally, the picture of a seminarian given by Wauck (1956) and reproduced in page 9, underlines the profile obtained from the SSCT except in a few points such as relative freedom from depression, anxiety and fears which contradicts the highest peak in the seminary profile in categories 10 and 11 (fears and guilt respectively). Wauck commented that the interpretation of the MMPI scores along pathological lines has created an erroneous picture of maladjustment in the seminary population. This picture was not confirmed by the SSCT findings more along normal lines of behavior.

Summary

An attempt was made to test the applicability of the Sacks Sentence Completion Test (SSCT) to a group of minor seminarians in order to obtain discriminative personality patterns useful in the screening process of candidates to the priesthood. The seminary group consisted of 72 minor seminarians from a religious Order and the contrasted group was a randomly selected sample of 78 seniors from a Catholic high school. The subjects took the original Form A of the Sacks Sentence Completion Test. The protocols were rated in the 15 categories of the test by four scorers (three psychologists and a graduate student in psychology). There were complete agreements in three out of the four scorers in 74% of the ratings. This reliability index compared favorably with the results reported by Sacks. The reliability was uneven ranging from 92% agreement in category 9 (attitudes toward colleagues) to 55% in category 10 (fears) suggesting expected variabilities in the test results per categories.

Both groups were contrasted in each of the SSCT 15 categories. Chi-squares showed significant differences favoring the seminary group at the .01 level in categories 3 (attitudes toward the family unit), 7 (attitudes toward superiors) and 15 (goals); at the .02 level in category 10 (fears); and the .05 level in categories 1 (attitudes toward the mother), 2 (attitudes toward the father) and 5 (attitudes toward heterosexual relations). The profile of both groups together was below the level of mild maladjustment in all the categories with trends toward conflicts in categories 10 (fears), 2 (attitudes toward the father) and 11 (guilt).

These results substantiated the usefulness of the Sacks Sentence Completion Test in batteries for selecting vocations as a sensitive measure of some person-

ality traits and levels not tapped by other battery instruments as the MMPI and Interests records. Some disparity in the results of the experiment with the results from other tests given to seminarians was interpreted as suggestive of the complementarity of the instruments.

The conclusions drawn from the comparison of the two groups were mitigated by the heterogeneity shown when intra-group comparisons were attempted. The lack of sufficient scores could have influenced the variability of the subgroup profiles. The test results manifest that the minor seminary group is still composed of individuals who will drop-out from the training program as suggested by the elevations in some conflict categories. This last suggestion was supported by the similarity between the mean rating of the poorly adjusted seminary subgroup and the data on Sacks Sentence Completion mean scores of seminary drop-outs reported by Vaughan.

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Appendix

SACKS SENTENCE COMPLETION TEST: RATING SHEET

Subject _____

Sex: _____ Date: _____ Time: _____

Instructions: On the basis of your clinical judgment, taking into account such factors as inappropriate responses, dysphoric references, and manifestations of conflict, rate the SSCT responses of the subject in the fifteen categories listed below, according to the following scale:

- 2 - severely 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
- X - unknown; insufficient evidence.

NOTE: the SSCT stimulus is typed in lower-case letters, the subject's response in capitals. When the number of an item is circled, it means that the subject did not complete it at first, but returned to it.

I. ATTITUDE TOWARD MOTHER.

Rating:

- 14. My mother
- 29. My mother and I
- 44. I think that most mothers
- 59. I like my mother but

INTERPRETATIVE SUMMARY:

II. ATTITUDE TOWARD FATHER.

Rating:

- 1. I feel that my father seldom
- 16. If my father would only
- 31. I wish my father
- 46. I feel that my father is

INTERPRETATIVE SUMMARY:

III. ATTITUDE TOWARD FAMILY UNITRating:

- 12. Compared with most families, mine
- 42. Most families I know
- 57. When I was a child, my family

INTERPRETATIVE SUMMARY:**IV. ATTITUDE TOWARD WOMEN.**Rating:

- 10. My idea of a perfect woman
- 25. I think most girls
- 40. I believe most women
- 55. What I like least about women

INTERPRETATIVE SUMMARY:**V. ATTITUDE TOWARD HETEROSEXUAL RELATIONSHIPS.**Rating:

- 11. When I see a man and a woman together
- 26. My feeling about married life is
- 41. If I had sex relations
- 56. My sex life

INTERPRETATIVE SUMMARY:**VI. ATTITUDE TOWARD FRIENDS AND ACQUAINTANCES**Rating:

- 8. I feel that a real friend
- 23. I don't like people who
- 38. The people I like best
- 53. When I'm not around, my friends

INTERPRETATIVE SUMMARY:**VII. ATTITUDE TOWARD SUPERIORS AT WORK OR SCHOOL**Rating:

- 6. The men over me
- 21. In school, my teachers

36. When I see the boss coming

51. People whom I consider my superiors

INTERPRETATIVE SUMMARY:

VIII. ATTITUDE TOWARD PEOPLE SUPERVISED.

Rating:

4. If I were in charge

19. If people work for me

34. The people who work for me

48. In giving orders to others,

INTERPRETATIVE SUMMARY:

IX. ATTITUDE TOWARD COLLEAGUES AT WORK OR SCHOOL

Rating:

13. At work I get along best with

28. Those I work with are

43. I like working with people who

58. People who work with me usually

INTERPRETATIVE SUMMARY:

X. FEARS.

Rating:

7. I know it is silly but I am afraid of

22. Most of my friends don't know that I am afraid of

37. I wish I could lose the fear of

52. My fears sometimes force me to

INTERPRETATIVE SUMMARY:

II. GUILT FEELINGS

Rating:

15. I would do anything to forget the time I

30. My greatest mistake was

45. When I was younger, I felt guilty about

60. The worst thing I ever did

INTERPRETATIVE SUMMARY:

XII. ATTITUDES TOWARD OWN ABILITIES

Rating:

- 2. When the odds are against me
- 17. I believe that I have the ability to
- 32. My greatest weakness is
- 47. When luck turns against me

INTERPRETATIVE SUMMARY:

XIII. ATTITUDE TOWARD PAST.

Rating:

- 9. When I was a child
- 24. Before the war, I
- 39. If I were young again
- 54. My most vivid childhood memory

INTERPRETATIVE SUMMARY:

XIV. ATTITUDE TOWARD FUTURE.

Rating:

- 5. To me the future looks
- 20. I look forward to
- 35. Some day I
- 50. When I am older

INTERPRETATIVE SUMMARY:

XV. GOALS

Rating:

- 3. I always wanted to
- 18. I could be perfectly happy if
- 33. My secret ambition in life
- 49. What I want most out of life

INTERPRETATIVE SUMMARY:

APPROVAL SHEET

The thesis submitted by Reverend Francisco Palomo, S.J. has been read and approved by the director of the thesis. Furthermore, the final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

23 Jan. 1967
Date

Libby A. Wausle
Signature of Adviser