THE MEASUREMENT OF THE ACHIEVEMENT SYNDROME

(WITH SPECIAL REFERENCE TO CROSS-CULTURAL COMPARISON)

The University of Cape Town

A thesis presented in the Department of Psychology

at the University of Cape Town

in fulfilment of the requirements for the degree of Ph.D.

by

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A C K N O W L E D G E M E N T

I would like to thank my supervisor, Professor H. Dansiger, who was of unfailing help during the whole period of the present investigation.

H.M.

Grahamstown,
April, 1965.

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The South African sample was subdivided according to cultural background and language (Afrikaans- and English-speaking Gentiles as well as English-speaking Jews), according to sex, and according to educational level (school children or university students). Within the university samples, a differentiation was made between arts and science faculty students.

Classed according to cultural background and language, the total sample of 578 subjects contained:-

111 male and 110 female English-speaking Gentiles,
35 male and 40 female English-speaking Jews,
130 male and 117 female Afrikaans-speaking subjects,
35 male German subjects.

8. The total sample was tested with McClelland's n Achievement measure, as well as with Murray's questionnaire on achievement value orientations. Furthermore, teacher ratings on the achievement behaviour of some pupils were obtained.

Additional tests were given to some of the sub-groups, viz.

the F-scale, presumed to measure authoritarianism,

future autobiographies for the assessment of self rationalisation,

the New South African Group Test, for intelligence.

The imaginative stories were also scored for the presence of n Affiliation.

9. The scoring reliability of the n Achievement measure was found to be satisfactory.

10. Due to the extreme reluctance on the part of the German pupils to write imaginative stories, the results obtained seemed invalid and it was decided to eliminate their scores from subsequent calculations.

11./ ....

11. The cue value of the three cards used in the achievement fantasy measure were found to differ. Furthermore, they tended to vary between some cultural groups.

12. It was established that the distribution of achievement fantasy scores was extremely skewed as well as bimodal in every one of the samples tested. This caused the distribution to deviate significantly from that of the normal curve. For this reason it was thought advisable to use non-parametric methods in all further calculations. It was suspected that these findings could be obtained whenever McClelland's test was applied to populations with a relatively low level of achievement fantasy.

13. The questionnaire on achievement value orientations was found to possess sufficient validity and a fair degree of internal consistency for its further use in cross-cultural investigations. 'Acquiescent response set' was found to be of little importance.

14. No significant correlations were found to exist between the measures of the three achievement syndrome factors. This can be taken as evidence that these factors may be independent of one another, assuming that each one's measure possesses a satisfactory degree of validity. Neither were any significant correlations found to exist between the above tests and various other measures which had been administered.

15. No significant differences were found between

    a) high school pupils and university students
    b) science faculty and arts faculty students
    c) males and females

as regards their level of achievement fantasy. The same negative results were obtained for the questionnaire on achievement value orientations of the above groups, except that males were found to have slightly stronger achievement value orientations than females.

16./...

16. No significant differences were, on the whole, found to exist between English-speaking Gentiles and Jews when compared with the achievement fantasy measure, as well as with the questionnaire on achievement value orientations.

17. The hypothesis that English-speaking subjects would obtain significantly higher achievement fantasy scores than the Afrikaans-speaking subjects, was confirmed at a high level of confidence. Conversely, Afrikaners obtained significantly more pro-achievement answers on the achievement value orientation questionnaire.

18. It was found that the empirical results were in line with previous observations that English-speaking subjects in South Africa tended to show greater interests in entrepreneurial activities (which had been found to be linked with high achievement fantasy).

Furthermore, the great insistence of Calvinism on positive achievement value orientations was found to be reflected in the significantly higher questionnaire scores obtained by Affikaans-speaking subjects in contrast to English-speaking subjects.

19. It was concluded that the achievement syndrome existed in various populations, but that the relative predominance of the individual achievement syndrome factors could differ from group to group. These findings were substantiated by relevant socio-historical information on the groups investigated.

PART A

REVIEW OF THE LITERATURE

CHAPTER I

Theories of motivation, with specific reference to achievement motivation

Theories of motivation, with specific reference to achievement motivation

There have been many philosophers and sociologists, like Bentham, Hobbes, Durkheim, Le Bon and Tarde who have made significant contributions to the present-day conception of human motivation; and in the psychological field there were McDougall, William James and Sigmund Freud, to name only a few.

Yet most of the above-named did not go much further than attempting to identify basic motives. The task of assessing them, of studying individual differences in strength of motivation has only been taken up during the last twenty years. Furthermore, the experimental study of motivation was largely confined to animals, and therefore results obtained had only a limited bearing on human beings.

This state of affairs caused Lindzey (1958) to remark that even in present times, psychologists tended to show a boundless respect for the importance of systematic theory which led them to develop a derogatory attitude towards mere methodological or procedural research.

On the one hand we have, for instance, Freud's elaborate psychoanalytical theories which can only be validated by clinical research or uncontrolled observational studies. This is quite clearly not very suited to quantitative validation and reliability studies.

Other motivational theorists have continuously tried to keep their motivational constructs easily verifiable by means of experimental procedures. One of the first in this respect was the Gestaltist Kurt Lewin (1936, 1938).

Lewin/...

There could be many types of needs, but Lewin did not discuss their possible kinds, nature and sources. To him the number of needs and "quasi-needs" was unlimited, but he did state that social factors were the most important determinants of the needs of a person.

Activity regions of the person related to a particular need could exist in three different states: a deficit state (e.g., thirst), satiation, and over-satiation. These would correspond to the concepts of valence, (positive, neutral, or negative, respectively), which was seen as the value of the psychological environment to a person. Should this person enter a region of positive valence, tension would be reduced, but if it were to increase, it would be due to the fact that the region possessed negative valence.

The person, together with his psychological environment, constituted the life space, this in turn, being surrounded by the non-psychological or objective environment.

Needs were co-ordinated with valence, as the needs gave certain values to the environment. Values then organized the environment into positive and negative regions. Valence strength depended on the strength of the need as well as all other non-psychological factors. In itself, valence could only steer action, but it did not supply the power for it.

The power was supplied by a certain force or vector. Tension and force were seen as being two different things, as Lewin defined force as existing in the psychological environment of a person, whereas tension was seen as originating in the inner-personal region.

The three/...

The three properties attributed to a force or vector were direction, strength, and point of application. Therefore a vector acting on a person would possess a certain strength and point of application, and it would point away from a region with negative valence. The concept of need was related to all this: need, according to Lewin, released energy, increased tension, gave value and produced vectors.

The final goal of the psychological process was a return of the person to a state of equilibrium. Among other methods, this equilibrium could be achieved by performing locomotion in the psychological environment, which, in turn, could result in the achievement of a goal with subsequent reduction of tension.

Lewin postulated that a person's concept of his own world was completely "tinted", ("durchtoent") by his own character and being. This conception would allow for an appraisal to be made of inter-personal needs by means of measurement of the person's concepts of his world.

Such measurement could most easily be carried out in situations which were little influenced by social standardizations, e.g., by utilizing projective measures like the Rorschach or Murray's Thematic Apperception Test.

1.2 Murray's attempts to measure motives

Another important 'Personologist', as he called himself, was Murray (1938), who admitted that he had been influenced by Lewin's Field Theory when constructing his own theory of motivation.

Lewin's basic concepts of "needs" and "vectors" were adopted by Murray. While the concept of "vector" retained the meaning given to it by Lewin, an "need" was defined as

> "...a construct which stands for a force ... in the brain region ... which organizes perception, apperception, intellection, conation and action in such a way as to transform in a certain direction an existing, unsatisfying situation."
>
> (Murray, 1938, pp. 123-124)

Murray differentiated between primary, or viscerogenic, needs (e.g., need for food), and secondary, or psychogenic, needs. The latter were presumably derived from primary needs and were characterized by a lack of focal connection with any specific organic process or physical satisfaction. While enumerating a magnitude of such secondary needs, like the need for construction or the need for acquisition, the concept of "<u>need for achievement</u>" is the most important in the present context and will be discussed at length later on.

n Achievement was defined as

> " ... the desire or tendency to do things as rapidly and/or as well as possible. Thus, there is a great variety of acts ... which may gratify the achievement drive. The Ego Ideal is merely the aggregate of the imagined goals of the n Achievement. ... It is, let us say, a conception of the ideally successful self. It may take any one of many different shapes - from the perpetrator of the 'perfect crime' to the prophet of a new religion."
>
> (Murray, 1938, p. 164)

Murray/...

Murray attempted to measure these various needs by administering a comprehensive test battery to many subjects. This battery contained, among others, questionnaire items on achievement value orientations as well as the Thematic Apperception Test which he himself had developed.

The results obtained were, however, of doubtful validity and reliability, as no large-scale quantifications and statistical evaluations were reported.

It was left to McClelland et al. (1953) to take up Murray's suggestions of the existence of a "need for Achievement" and to test for it in fantasy stories elicited by the Thematic Apperception Test.

McClelland saw the greatest need for the development of a standard method of measuring human motivation. In order to be able to do this, he accepted the well-proved finding from animal studies that motives could be aroused experimentally, and furthermore, that their intensity could be regulated by a manipulation of their arousal condition. Out of this McClelland evolved a theory of motivation which has been published in his book entitled, "The Achievement Motive" (1953). This theory has important forerunners, of which the "Stimulus pattern model" by Hebb deserves special mention.

1.3 <u>The "stimulus pattern model" (Hebb)</u>

Hebb (1949) postulated that variations in neural patterning were responsible for motivation occurring in a given situation. He stated that,

> "the term motivation refers,
> 1. to the existence of an organised phase sequence,
> 2. to its direction or content, and
> 3. to its persistence in a given direction, or stability of content."
>
> (Hebb, 1949, p.181)

Furthermore/ ...

Furthermore,

> "Up to a certain point, lack of correspondence between expectancy and perception may simply have a stimulating or 'pleasurable' effect;... beyond this point, a disrupting (or unpleasant) effect."
>
> (Hebb, 1949, p.149)

This discrepancy can occur in four possible stages:

1. With a very great discrepancy, pain is felt, which has a disrupting effect. This pain may, however, influence learning and can therefore be classed as a motive.
2. With decreased discrepancy, the pain stimulus may be formed into a phase sequence, and may furthermore help this phase sequence to be maintained. It is above all this stimulus which can be seen as motivating.
3. The discrepancy is now so small that pleasure may be experienced by the organism, e.g. when reading a detective story with an unknown outcome. This is also apt to have a motivating effect.
4. When discrepancy is lacking altogether, the phase sequence may proceed very rapidly or be cut short, e.g. when the same detective story is read again, this time with outcome known. Here, then, the phase sequence may disappear due to its short-circuiting which leads to the cessation of the motive.

According to McClelland (1953), the chief objection to Hebb's theory is that it is far too general in nature. It does not specify e.g. whether a phase sequence is organised or not, or what the discrepancy will be between a certain expectation and its perception. Without knowing this exactly, it cannot be said beforehand whether pleasure or pain are likely to be experienced.

Although commenting at length on the shortcomings of Hebb's model, McClelland admitted that much of his own theory was derived from it.

Other/...

> these affective states, changes in these affective states, and the conditions producing them become capable of reintegrating a state (A') derived from the original affective situation (A), but not identical with it."
>
> (McClelland, 1953, p.28)

Four distinct reasons prompted McClelland to use affective arousal as a basis for motives:

a) The motive concept would only be of use if it had a limited base, otherwise it would become too vague and lose its value for psychological research. Associations engaged in forming motives should vary from other types of associations.

b) Contrary to motivational theories mentioned previously, it would be better to use affective states instead of biological needs or strong stimuli, as the latter possessed certain limitations; (see McClelland's criticism of foregoing theories).

c) From the point of view of common sense, affective states clearly played an important role in the control of behaviour.

d) Animals were to a large extent guided and directed by selective sensitivity in behavioural responses. This would also hold true for man, except that the elicited responses were far more unspecific and variable, occurring as diffuse reactions of the autonomic nervous system, thereby indicating a state normally labelled 'affect'.

Having once chosen affective arousal as a basis for motives, the question of its behavioural effects arose.

First of all one could distinguish affective states by their effects on the autonomic activity of animals or persons. The snag was, however, that autonomic activity by itself, (e.g. rise in blood pressure) could not in itself reveal whether the affective state causing it was of a positive or negative kind. One could, however, observe the facial expressions or the spontaneous vocalising of people in response to affective states, (e.g. "ouch, it hurts", or "that's marvellous"). The drawback here would be the possibility of faking such responses.

By analysing the hypothetical development of a motive, McClelland came to the conclusion that there were three events essential for this development:-

a) the situation producing affect,

b) redintegration of the former,

c) and the response learned to this redintegration.

Each of these three events could have behavioural effects which were observable and could be distinguished from one another. The effects of (a) and (b) could be distinguished by taking, for example, a shock which would produce pain, (the situation producing affect) as well as fear (anticipatory redintegration of the pain response).

Turning to the responses learned in view of the redintegrated affect, McClelland (1953) stated that the reactions could vary greatly in number, but that all of them were surface modes of reaction involving two fundamental aims:

a) to approach or sustain pleasure, and

b) to evade or minimize pain.

The problem/ ....

The problem would now be one of where and when to measure a particular motive, as its effects could vary so enormously. An important method of attempting to identify a motive would be to look for some sort of a response sequence which would end when the person reached his goal as regards to the source of affect.

In animals, McClelland (1953) argued, one could find evidence for the presence of a certain motive only if there was a distinct sequence, consisting of successions of particular responses which had as a goal either approaching or avoidant behaviour.

With human beings this was much simpler, as one could utilize verbal responses from which it was possible to infer the end result without the person actually having to perform a sequence of responses which indicated either approach or avoidance.

Motivation could best be measured when habit and situational factors were either known, minimized or randomized, and only the goal-oriented choice was 'free'. This could most easily be achieved when a person gave fantasy responses to a particular picture. As long as the picture was not too structured, fantasy responses would be relatively 'free', i.e. they could be on any subject under the sun, as no external constraints were placed on them.

On the other hand, the situational and habit factors could be controlled to an effective degree. The testing situation and picture cues could be kept constant or be varied at will, whereas with regards to habit it could be assumed that for most persons verbalisation of thoughts would be a highly overlearned response.

The acquisition/ ....

1.4.1 The acquisition of motives

McClelland (1953) postulated that, according to his definition, a motive could be formed by pairing cues with affective arousal, or with the conditions producing this affective arousal.

The strength of a certain motive could refer to three things:

a) It could mean the probability that a particular cue would arouse a motive, (i.e. dependability);

b) it could mean the intensity of the motive, once it had been aroused, or

c) it could mean the extensity of the motive, i.e. the diversity of situations in which it could appear.

Thus the achievement motive of some persons might be elicited by a multitude of different cues (extensity), with others it would only appear in specific situations, (e.g. playing Bridge). The intensity (b) could also differ greatly. Some persons might be exceedingly interested in winning at a game, others perhaps only slightly so, but could on the other hand be displaying e.g. a consuming passion to finish their doctoral dissertation.

Apart from these three hypothesized aspects of motive strength, there would also have to be reckoned with the fact that motives could be of a different kind or quality, (e.g. concerning hope of success, or fear of failure).

An attempt/...

When wanting to determine whether the writer of such a story possessed strong achievement motivation, it should be shown quite clearly that there happened to be present a certain frame of reference, but above all some sign of affect over the evaluation of the relevant performance. Only through this would it be clear that the writer was personally involved, e.g. "the man feels lousy because his invention failed" or, "he tried his utmost to become a doctor."

By defining the Achievement motive as "affect with evaluated performance", McClelland (1953) made allowance for a great many varieties of kinds of performance which could be included under this definition. Theoretically, the n Achievement measure should therefore be applicable in all cultures, as long as it was known to the experimenter whether a stated performance possessed a generally accepted achievement value in the culture under consideration.

There was, however, no strict necessity for a wealth of achievement imagery in fantasy stories of a subject to be associated with superior performance in real life. A person performing badly in reality could very well attain a high n Achievement score. This, however, should not be the general finding. On the contrary, one should expect a significantly positive, though moderate, relationship between the n Achievement scores of a person and actual proficiency of performance in real life.

McClelland's theory of achievement motivation has been subjected to experimental tests on a number of occasions. Questions whether Achievment fantasy is really reflected in real-life situations and many others pertaining to the theory are discussed in the subsequent chapters of this thesis.

CHAPTER II

An analysis of McClelland's n Achievement measure

An analysis of McClelland's n Achievement measure

Before utilising McClelland's n Achievement measure, clarity had to be obtained whether it satisfied the demands generally made on psychological tests.

According to Drever (1952), a test is,

> "...a standardised type of examination, given to a group or individuals; it may be qualitative or quantitative, i.e. determine presence or absence of a particular capacity, knowledge, or skill, or determine the degree in which such is present; in the latter case, the degree may be determined by the relative position of an individual in the group or the whole population, or by assigning a definite numerical value in terms of some selected unit..."
>
> (Drever, 1952, p. 291)

Psychological tests are expected to possess the following to a satisfactory degree:-

A) objectivity
B) reliability
C) validity

The evaluation of a test for its general utility is possible only when it has been ascertained to which degree each of the above criterin has been met.

The objectivity/...

2.1 The objectivity of the n Achievement measure

Objectivity of a test has been defined by Lienert (1961) as the average degree in which the judgments of several independent experts correspond as regards the test results of a sample of subjects.

In most cases, the objectivity of a test is classed under the aspect of its reliability, (e.g. in the case of intelligence and performance tests), but when dealing with projective tests, Lienert (1961) advised to investigate these two concepts separately, as the reliability coefficient might be so low that the measure of objectivity would have to take its place. According to him, the degree of objectivity would be high when the test evaluation could be carried out in a schematical or automatic way. On the other hand, the more the evaluator had to make subjective decisions, the lower would be the test's objectivity. The degree of objectivity a test reached would at the same time denote to which degree it was possible to teach and to learn its scoring system.

The objectivity coefficients obtained with the n Achievement measure are, on the whole, most satisfactory. They do, in themself, already constitute an important quality of the test.

The scoring system for the n Achievement measure has been communicated in an excellent manner by Smith and Feld (1958), and is summarized in the Appendix.

The objectivity/ ....

The objectivity of this scoring system was investigated in a number of studies, where the interjudge correlations were found to be as follows:

r =	.77	Veroff, Atkinson and Gurin (1960)
	.80	Martire (1956)
	.82	Raphelson (1957)
	.84	Feld and Smith (1958)
	.88	Atkinson and Reitman (1956)
	.89	De Charms, Morrison, Reitman and McClelland (1955)
	.91	Douvan (1956)
	.93	Atkinson (1953)
	.95	McClelland, Clark, Roby and Atkinson (1949)
	.95	Veroff, Wilcox and Atkinson (1953)
	.96	Karolchuk and Worell (1956)
	.98	Morgan (1953)

According to the above results, it can be said that the n Achievement measure possesses a high degree of objectivity.

The reliability/...

2.2 The reliability of the n Achievement measure

Anastasi (1954) stated that,

> "the reliability of a test refers to the consistency of scores obtained by the same individuals on different occasions or with different sets of equivalent items."
> (p. 94)

The first part of this definition refers to the test-retest method of assessing reliability, and the second part concerns the split-half and equivalent form methods.

2.2.1 The method of equivalent forms can only be applied when there are two or more parts of the test which are truly parallel in all of their aspects. This is clearly not the case when considering the n Achievement measure which uses different TAT-type cards, and it is for this reason that its reliability cannot be investigated by means of this method.

2.2.2 The split-half method is related to the above. Here the test is divided into comparable halves and the correlation of these halves with one another yields the stability coefficient of the test. But an important presupposition is the relatively high homogeneity of the measuring instrument, (Lienert, 1961).

Although McClelland (1953) might still regard the achievement motive as a unique personality trait, he himself posed the question whether the TAT could be taken as a homogenous measurement of this trait. He described it as,

> "problems of uniqueness. Or, to put the question the other way: What variables other than the motive to be assessed may influence the fantasy measure of it?"
> (McClelland, 1958a, p.33)

McClelland/...

McClelland (1958a) referred to the cue values of every card as one particular variable, and Jacobs (1953) defined the cue value of a picture for a given motive as,

> "the probability that the picture will engage some or all of the family of perceptual response dispositions which have been associated with attainment of the aim or goal state of that motive."
>
> (Jacobs, 1953, in: Motives in Fantasy, Action and Society, p. 618)

The cue value of a single card can either be based on an intuitive judgment by the experimenter, or may be determined by means of an experimental investigation to see how many people would give responses characteristic of a particular motive to a picture.

McClelland, Atkinson, Clark and Lowell (1953) determined the cue value of the cards intuitively, that is, they determined whether or not the cue strength of a TAT-type picture was suggestive of achievement.

One can easily object to this intuitive method, as it can be influenced by subjective factors in the experimenters.

A method to determine the cue value experimentally was applied by Jacobs (1953) as well as by Haber and Alpert (1958). The former found that the cue value of a card could be characterized by two traits:

a) according to the dominant concerns of characters portrayed in a given picture;

b) according to the ambiguity of a picture, where ambiguity is defined as,

> "(being) subject to a wide variety of interpretations; i.e., when it gives rise to many different responses because it lacks characteristics which produce agreement or consensus among a number of persons."
>
> (Jacobs, 1953, in: Motives in Fantasy, Action & Society, p.624)

He/—

He found that the dominant concerns and the ambiguity of ten TAT-type cards differed widely. For instance, in the judgment of experimental subjects, TAT card 8BM ("boy and mural with operation scene") elicited far more achievement fantasy and less guilt fantasy than TAT card 20 ("man in overcoat under street light"). The fantasy stimulus of the latter card was also far more ambiguous and would therefore be a less sensitive indicator of a motivational predisposition than a theme in reaction to a non-ambiguous stimulus. (Kagan, 1959).

Jacobs (1953) stated that three types of cues could influence the ambiguity of a picture:

a) the environmental situation portrayed;

b) the activity going on in it; and

c) the facial and postural cues of persons in the picture.

The more clearly these three types were evident, the less ambiguous would a picture tend to be.

Furthermore, Jacobs (1953), Haber and Alpert (1958) as well as Birney (1958a) found that there was only a low positive correlation between the rank assigned to a picture on the strength of its achievement cues and the quantity of achievement imagery actually put into a story about it by the same subject.

In view of these low correlations, (r = .17; .17 and .41; resp.), the question must be asked whether the two methods are in fact measuring the same aspect of the achievement motive. The above experiments are apparently measuring a cue value which is obtained by a more rational method, (rating and ranking). McClelland (1958a) postulates, on the other hand, that n Achievement should reflect unconscious motivation.

It is/...

It is therefore very likely that the two methods are not measuring the same trait.

McClelland (1958a) commented as follows on this undecided state of affairs,

> "...the safest practical generalization appears to be that cues will tend to be equivalent so long as they suggest vaguely the content area of the motive being measured but do not elicit strong or specific associations based on particular cultural or personal past associations."
>
> (in: Motives in Fantasy, Action and Society, p.34)

Another distracting variable which has a negative influence on the reliability of the n Achievement measure is the "cyclical saw-toothed phenomenon", mentioned by Reitman and Atkinson (1958), or the "associative refractory phase", (McClelland, 1958a). These two concepts denote the fact that once a given associative response has been made, there will be less likelihood of it appearing again immediately afterwards. Atkinson (1950) had already found proof of a cyclical variation in the level of a given motive from story to story within the test protocol of a person, and Reitman and Atkinson (1958) discovered that the mean n Achievement scores from the stories of 32 male subjects were significantly and uniformly higher for pictures in even serial positions; ($p < .01$).

It is obvious that this phenomenon makes it impossible to divide the test according to the odd-even method in order to investigate its reliability.

The second possibility would be to divide the n Achievement measure into a first and a second half, but here the "serial position effect" upon motive scores (McClelland, 1958a) does not permit this either.

Atkinson/...

Atkinson (1950) established that there was a significant correlation between the mean n Achievement scores of a subject for the first four positions and the amount of the decrease from these scores to the n Achievement scores based on the last four positions, with scores equated for systematic differences due to pictures; ($r = .66$).

The same conclusions were arrived at by Reitman and Atkinson (1958) who found that the performance in arithmetic problems correlated positively with the n Achievement scores of the first four pictures of a series of eight, but that the correlation was non-significant when the last four pictures were utilized. This finding was not due to the specific cue value of the individual pictures, as it was found that the first four pictures, when administered last, gave equally insignificant results.

The authors concluded that the serial effect could be influencing the n Achievement measure to such an extent that the first few stories written would contain variables quite different from those contained in later stories, entirely apart from each picture's cue value. This seriously limited the number of pictures which could be administered in the course of one particular session.

McClelland (1953) reported two studies where the intercorrelations between n Achievement scores of two "equivalent" sets of three pictures each reached the value of .48, ($n=32$). But a later study by Reitman and Atkinson (1958) resulted in far lower correlations, namely .32, .28 and .38; ($n = 41-48$) In view of these low correlations the standard error of measurement is very high and little can therefore be said about the reliability of the n Achievement test scores.

It can/...

It can thus be concluded that the split-half method is unsuited as a reliability test of the n Achievement measure, because,

a) the cues of the n Achievement measure differ too widely,

b) the adverse serial position effect is very prominent,

c) the associative refractory phase also influences the n Achievement scores.

For these reasons the n Achievement measure cannot be called a homogeneous test. The different pictures do not have the same function and are therefore unable to test exactly the same personality variable.

2.2.3 The test-retest method of establishing the reliability.

This method necessiates a repetition of the same test on a second occasion. The reliability coefficient is then computed by correlating the scores of the first administration with their respective repetition scores.

This method can be influenced by three variables:

a) ability of subjects to recall the first test,

b) constancy of the trait being measured,

c) variations in external conditions when administering the test.

a) Ability of subjects to recall the first test.

Subjects who have remembered the stories they wrote on the n Achievement test may either repeat these stories, e.g. out of laziness, and thus cause a spuriously high reliability coefficient. On the other hand, they might invent a totally different story to show how good they are, and because the instructions of the n Achievement measure state that it is "a test of creative imagination".

It will of course help to make the time interval between the two test administrations as long as possible, but an optimal period is exceeded when the trait to be measured has had a chance to change from its original strength. As the achievement motive is taken to be a fairly constant personality trait, the testing interval can be made relatively large.

constancy/...

b) Constancy of the trait being measured

The constancy of a trait is illustrated by McClelland (1958a) as follows,

> "If a child...has just kicked another child on the playground, and the psychologist goes up to him and asks him to do it again, to make sure that it was not an "accidental" expression of aggression, he would not be likely to give the same response, partly because the first expression of the motive changed the motivational situation, and partly because asking him to do it again changes the motivational situation."
>
> (Motives in Fantasy, Action and Society,p.19)

A change in motive state between repeated administrations of the n Achievement measure may also be due to the associative refractory phase mentioned earlier. Rogers and Dymond (1954) found a cyclical effect in a number of TAT variables with successive administrations, e.g., what was high on Test 1 for the group tended to be lower on Test 2 and again higher on Test 3.

McClelland (1958a) concluded that someone with strong general achievement motivation who had just related a story containing n Achievement, could be predisposed to tell another one, but this might be counteracted by the associative refractory phase, and thus reduce the test's internal consistency and test-retest reliability.

External/...

e) Variations in external conditions

External factors may greatly influence the test-retest reliability, e.g.:

1. Testing conditions

The reliability of the n Achievement measure can easily be influenced by changes in conditions prevailing before, during or after the test. Care should always be taken to keep these conditions as constant as possible.

2. Testing instructions

Difference in results can occur if the n Achievement measure is given under relaxed, neutral, or achievement-aroused conditions. (See McClelland et al., 1949; McClelland et al., 1953; Haber and Alpert, 1958).

3. Status and sex of the test administrator

Birney (1956) found that high prestige of an experimenter could in itself significantly increase the n Achievement score of his subjects. Likewise, a female person giving the test caused the n Achievement scores to increase significantly, as opposed to male experimenters who were only slightly older than the subjects themselves; (Lindzey and Heinemann, 1955).

4. Individual as opposed to group administration

Lindsey and Heinemann (1955) also established that n Achievement scores which had been obtained under group administration showed an insignificant correlation (r = .12) with results obtained when subjects were tested one by one. They stated that group administration tended to allow for greater anonymity and would therefore decrease the score variability because of the more impersonal nature of the relationship between experimenter and subject.

All of these factors can be of distracting influence, but they are mostly kept constant by careful experimenters.

In spite of this, most of the test-retest correlations are very low; e.g., Krumboltz and Farquhar (1957): r = .26, n = 169; Birney (1959): r = .29, .56, .20, .15, .40, .03, (n = 26-46). These low correlations are explained by Reitman and Atkinson (1958) to be due to the subjects' avoidance of response repetition in consecutive test administrations.

McClelland (1958a) concluded,

> "If one may generalize at this early stage of standardization research at all, the conclusion which seems most justifiable is that variables of a motivational nature (e.g., relationship to the administrator, "volunteer error", changed attitude toward the task as it produces serial position differences, apparent intent of the test) are most influential in causing instability and unreliability, whereas minor procedural variations (e.g., type of cue, time allotted to produce a story) are least influential."
>
> (Motives in Fantasy, Action and Society, p. 37)

Conclusions

For all the abovementioned reasons the reliability of the n Achievement measure is difficult to assess. It has been found that the method of equivalent forms as well as the split-half method is unsuitable. The test-retest method is the only one left, but it has not yielded high reliability coefficients.

It is for these reasons that it seems advisable to take up a proposition made by Lienert (1961), who advocated the estimation of test reliability by means of the objectivity coefficient; as discussed at the beginning of this chapter.

Lienert/...

Lienert stated,

> "In cases where the inconsistency of the personality variable under investigation is considerable, a test-retest reliability coefficient will underestimate its reliability. In this case an objectivity measure may take the place of the reliability coefficient."
>
> (Lienert: Testaufbau und Testanalyse, p.434, transl.)

When this advice is accepted, it can be said that the reliability estimate through an objectivity measure is satisfactory.

(See beginning of this chapter).

2.3 The validity of the n Achievement measure

Validity has been defined by Anastasi (1954) as,

> "The degree to which the test actually measures what it purports to measure."
>
> (Psychological Testing, p. 29)

The validity of a test can be assessed by various methods, but with the n Achievement measure only two of them have relevance, namely,

1) empirical validity,
2) content validity.

2.3.1) **Empirical validity** was defined by Anastasi (1954) as follows,

> "Empirical validity refers to the relation between test scores and a criterion, the latter being an independent and direct measure of that which the test is designed to predict."
>
> (Psychological Testing, p. 127)

She furthermore stated that the validity of a test could not be reported in general terms, but could be established only in terms of one or more specific criteria, which have been divided into three main sections by McClelland et al. (1953):

(a) Criteria obtained by self-ratings of the subjects;
(b) criteria obtained by ratings of motivation through outside observers;
(c) criteria obtained by means of behavioural measures of motivation.

(a) Determination of the empirical validity by self-ratings of the subjects

Here the subject is asked what his or her motives are. This can be done through direct or indirect means.

Asked directly, the subjects are requested to state personal likes and dislikes on a list of various activities, objects and situations. Many questionnaires have been used for this purpose (see pp. 53 - 57), where it has been shown that the correlations between a subject's overt answers on personal achievement and scores on the n Achievement measure were seldom, if ever, positively related.

McClelland (1958a) offered an explanation for this discrepancy by stating that the questionnaire answers were conscious reports under voluntary control of inner states. Motives, on the other hand, should represent unconscious states. As questionnaire answers were based on conscious decisions of the subject, they were likely to be influenced by sets and intentions situated outside the n Achievement motive, or they were measuring conscious achievement value orientations.

It is therefore evident that self-ratings by subjects cannot state anything about the actual validity of the n Achievement measure.

(b) Determination of the empirical validity by ratings of motivation through outside observers

In this case, estimation of the subject's achievement motivation is carried out by persons who know the subjects well and who are mostly able to make better assessments than the subjects themselves.

However, McClelland (1958a) rejected this form of validation by means of subjective estimations. He stated that the reliability of judgments was often low, as the views of the judges rarely coincided. He secondly asked the question whether such judgments reflected the motive in question only, and nothing else. It was impossible, for instance, for the judges not to project their own motives into their decision-making. On the other hand, it was conceivable that they would assign wrong weightings to the various indications of achievement motivation (e.g., class,marks, diligence),so that their final judgment would be unrepresentative for the "real" n Achievement motive.

McClelland (1958a) concluded,

> "To summarize, ratings of human motivation by judges are at best very imperfect methods of measurement which should be used only in the "bootstraps" stage of research for their suggestive value. On no account should they be used as criteria against which other measures are finally "validated"
>
> (Motives in Fantasy, Action and Society, p. 30)

Determination/...

(e) Determination of the empirical validity by means of behavioural measures of motivation

Human behaviour is another external criterion which can be measured in many different ways, e.g., by testing the physiological response system, through performance tests, in learning, in perception or in memory, to mention only a few.

The results of relating these types of measurement to n Achievement have been fully described elsewhere, (pp. 60 - 87).

The main objections voiced by McClelland (1958a) against these criteria were to the effect that such behavioural effects did not seem to be unique enough as regards achievement motivation. For example, good school performance did not only result from a strong motivation to achieve, but also from other motives, values, social pressures and external situations.

The question can therefore be asked whether self-rating and judgments by outside observers are able to measure a subject's achievement motivation and nothing else besides. McClelland (1958a) denied this assertion.

He thus saw the behavioural measures of motivation as being the only possible ones by which the n Achievement measure could be validated. But here, too, the question arises as to how far the tested behaviour really represents motivation to achieve. The low correlation coefficients certainly hint that this is so only to a limited degree.

Strong/ ....

2.3. 2) Strong doubts about the possibility of validating the n Achievement measure by means of empirical methods led McClelland (1958a) to investigate the content validity of the n Achievement measure.

Content validity is also called logical validity, or validity by definition. Here the assumption is made that the test problem itself is the best possible criterion for the personality variable under investigation. The test is simply declared valid as per definition.

In this sense the n Achievement scores of imaginative stories are valid if it is agreed that no measure exists which is superior to it in the measurement of achievement motivation.

The point must be raised, though, whether much is won by the simple assertion that the n Achievement measure possesses a high content validity, as the validity has then only been deducted from basic theoretical concepts which are not proved experimentally and never can be.

For this reason McClelland (1958a) insisted not only on content validity, but also demanded the "relational fertility" of the n Achievement measure. This he defined as,

> "the validity of the measure in terms of the number and extent of its connections to other theoretically-related variables, among which may be the 'truer' measure. Properly speaking, this is the extent or richness of the network of associations within which a construct occurs."
>
> (Motives in Fantasy, Action and Society, p. 20)

This/ ....

2.3.3 Conclusion

According to the results which have been mentioned in the present chapter, the n Achievement measure is at present not much more than a research instrument, instead of being a reliable and valid test for individual diagnostic purposes.

The n Achievement measure does in many ways not fulfil the requirements of a standardized test,(as defined at the beginning of the chapter). Its reliability is generally low, except for its objectivity coefficient.

It is equally doubtful whether the test possesses sufficient empirical validity, as this could not be proved by applying the standard validity criteria.

There are strong indications that future research should concentrate on the aspect of 'content validity' or 'construct validity'; but it will need many more sophisticated experiments before the n Achievement measure can be firmly established as a psychological test of great value.

C H A P T E R III

The origins of achievement motivation

The origins of achievement motivation

Why does one culture, one nation or one person seem to be more hard-working and achievement-oriented than another?

Speculations about the origins of differences in motivation to achieve are as old as mankind itself. Various theories have been put forward in the past, bearing mainly on racial or climatic differences. Sheldon's and Kretschmer's theories are good examples; they argued that the key factor was body type (e.g., muscular persons were seen as being more enterprising, etc.).

But McClelland (1961) maintained that changes among nations in n Achievement level have simply taken place too rapidly to be attributable to genetic factors. He dismissed the climatic theories on the same grounds, as it had been found that within a generation the n Achievement level in some countries had changed considerably, yet the climate had remained relatively constant. Any association between n Achievement on the one hand and race or climate on the other seems to him to be extrinsic rather than intrinsic. Both do not have anything directly to do with the raising or lowering of the n Achievement level, but both are associated with other factors which are intrinsically connected with it.

Another popular theory about differences in n Achievement is that certain people have been subordinated or have been discriminated against. They would then develop a high need for achievement.

This notion resembles Toynbee's idea of the "right amount of challenge" which a nation needs in order to achieve something, but according to McClelland, Toynbee never specified what exactly he meant by this phrase.

McClelland/...

McClelland maintained that response to subordination depended on the initial level of achievement motivation in the group. The challenge from the environment had to be moderate, not too high or too low, (50:50 chance of success; see Chapter V, 5.1). This would explain the relatively higher achievement striving of Jews as compared to Negroes in the U.S.A. In conclusion McClelland stated that the degree of challenge from the environment was an important determinant of achievement motivation, but its effect was greatly influenced by initial levels of achievement. Thus the initial question of this chapter has not yet been answered.

To get nearer to a solution of the problem as regards the origins of n Achievement, McClelland et al. (1953) stated that two basic assumptions had to be made: -

1. Important psychogenic motives are learned and not instinctual;
2. They are somehow acquired by association with primary biological pleasure and pain.

Research on the origins of achievement motivation was subsequently focussed on the family into which a child is born and where it is brought up during the first formative years of its life.

Freud has made us aware of the great importance of early parent-child relations. Early childhood should be the time of life when the chances for the formation of strong secondary motives, (like need achievement),were most likely to occur, for the following reasons:-

1. If it were accepted that the young child exhibits a greater over-all responsiveness, it would be logical to suppose that many more of its associations would have a strong

affective/...

affective component; and therefore many more situations ought to be associated with affective states than later in life.

2. At this stage symbolic control, (e.g., language), was absent. Thus the connection for the infant between the specific situation or response and the state of affective arousal was very vague and general at best. Because it was so general, it would be very hard to extinguish.

That strong n Achievement evident in childhood persists right through life is borne out in a recent study by Sontag and Kagan (1963). Working at the Fels Institute, they made a longitudinal study of 71 middle class subjects from birth until adulthood. It was found that the period of 6 - 10 years was critical for a crystallization of a desire for task mastery and intellectual competence. High levels of achievement behaviour at that age were highly correlated with achievement behaviour in adulthood; ($r = .68$; $p < .001$ for males; $r = .49$; $p < .01$ for females).

Achievement motivation scores between the age of three and six years were unrelated to adult behaviour for males and only moderately related for females. Although those results proved the stability of the achievement motive through life, they were at variance with McClelland's hypothesis that this motive would be established very early in life. This problem of determining the exact age for the emergence of n Achievement will be discussed subsequently.

The achievement motive will, like all motives, develop out of repeated affective experiences connected with certain types of situations and types of behaviour. In the case of achievement motivation the situation should involve "standards of excellence",

presumably/...

presumably imposed on the infant by the culture into which it is born, and more specifically its parents as representatives of this particular culture. The behaviour should either involve "competition" with those standards of excellence or attempts to meet them, which, if successful, produce positive affect, or, if not successful, negative affect.

Thus those cultures, or families in any one particular culture, stressing "competition with standards of excellence", and which insist that the child be able to perform certain tasks well by itself, should produce children with high achievement motivation.

The following literature survey on this topic can be roughly divided under two headings:-

(a) Research into differences between family attitudes on child raising inside one particular culture or society, (mostly the U.S. - Western society);

(b) Research into differences between family attitudes on child-raising in different cultural spheres and societies, where the general n Achievement level in one society is estimated to be significantly different from that of the other one.

3.1 Family attitudes on child-raising inside a particular society

The main problem here is to discover whether individuals with diverging n Achievement scores have in fact been treated differently by their families as they grew up. Results can be obtained by either asking such persons for self reports on their upbringing, or by relating objective measures of parental behaviour to achievement motivation in their children. Lastly, individual cases of persons with high and with low n Achievement can be investigated.

By asking/...

By asking 30 male students with known n Achievement scores in the U.S., McClelland (1953) found that perceived severity of upbringing or "felt lack of love" was associated with high achievement motivation, ($r = .40$). Sons who rank low in n Achievement tend to perceive their fathers (and their mothers to a lesser extent) as more friendly and helpful, and give evidence of being very close to them in their admiration. However, strikingly reverse correlations were found when a sample of high school males was tested. Perceived friendliness of fathers correlated positively, ($r = .30$; $p < .05$), with the achievement score of the sons. There is no simple explanation for this reversal, and one must beware of giving too much weight to self-reports.

The results are certainly much more promising when investigating the body of research on parental attitudes, especially attitudes on independence training, as seen by the parents.

Winterbottom (1953) investigated the ages at which mothers made certain demands and placed specific restrictions on 29 eight-year old boys in an American middle-class rural community. The boys' n Achievement scores had been computed from a content analysis of four stories told by them in response to verbal cues administered by the experimenter. Independent interviews of their mothers were carried out, asking questions about the age at which they had expected their sons to have learned certain things, e.g.,

to do well in school on his own,
to make decisions for himself,
to be active and energetic in sports,
to be able to carry out certain regular tasks around the house.

Items dealt with attitudes towards three overlapping but distinguishable matters, namely: independence, mastery, and caretaking. Also asked were questions on restrictions, e.g., at what age a boy was not supposed to do certain things.

Her results/...

Her results indicated that mothers of boys with high n Achievement differed from mothers of boys with low n Achievement as regards to the following items:

(a) they evaluated their children's accomplishments higher and rewarded them more frequently;

(b) they made more demands before the age of eight;

(c) the total number of restrictions made until the age of ten was less, but the total number of restrictions made before the age of seven was greater;

(d) even though they made more restrictions to the age before seven, the number of demands they made at this age exceeded the number of restrictions.

No significant differences were found between the two groups in the total number of demands made, nor in the number and intensity of punishments for demands and restrictions.

Winterbottom came to the conclusion that early training and mastery contributed to the development of strong achievement motivation.

These important findings were only partly confirmed in a study undertaken by Krebs (1958), who modified Winterbottom's interview schedule, (originally used to interview mothers), to make it a self-report inventory for the subjects. A correlation of +.214 was obtained between height of n Achievement score and stated earliness of independence training. This correlation did not reach statistical significance. / These results tie up with reports on the well-known inability of self-reports to achieve a satisfactory level of reliability (see also Chapter IV).

In the present report one could, of course, question the reliability of such a self-report for an early period in the subject's life where his time estimation was still in its rudimentary stages.

In a study/ ....

In a study of 44 boys and 42 girls at the Fels Research Institute, Kagan and Moss (1959) confirmed Winterbottom's results that early maternal concern was conducive to the development of achievement motivation. They also found a positive relationship between the amount of achievement fantasy in the child and the educational level of the same-sex parent.

Further confirmation was presented by Rhona Rosen (1961), who tested 30 Jewish boys of equal age (9-10 yrs.) and homogenous economic and social background in Cape Town. She found that homes characterised by intrinsic valuation of the child together with a high level of independence training were most conducive to the development of strong achievement motivation. The boys low in achievement motivation tended to be overprotected at home.

Rosen and D'Andrade (1959) came to the same conclusion after studying 40 groups consisting of a father, mother, and a son aged 9-11. They found that parents of boys high in n Achievement tended to be more competetive, showed more involvement, and seemed to take more pleasure in problem-solving experiments. They were more interested in their boys' performance and gave them more things to manipulate. They also had higher regards for their competence and cherished higher aspirations for them. Whereas the fathers contributed more to independence training, Rosen and D'Andrade found that the mothers were more responsible for the achievement training of their sons. Mothers of boys high in n Achievement were also emotionally more involved and more concerned with their sons' successes. The authors stated that according to these findings a boy would need to be granted more autonomy from his father than his mother. Whereas the dominating mother was seen as imposing her own standards on the boy, the dominating father was likely to impose himself. Attention was focused especially on the complicated interaction of these various factors which, in an ideal combination, should make for high n Achievement in the young child.

Similar/ ....

Similar results were reported by Argyle and Robinson (1962), who established, above and beyond some of the aforementioned variables, that children high in n Achievement showed a greater tendency to introject parental exhortations and standards. In addition, they found that these children identified more strongly both with their achievement-oriented parents as well as with other persons close to them. This large-scale study was carried out in England with 500 children as subjects, using among other tests, the Semantic Differential as described by Osgood, Suci and Tannenbaum (1957).

In the study by Crandall, Preston and Rabson (1960) it was found that direct maternal rewarding of achievement efforts in nursery school children (numbering 30), was the factor most predictive of the child's achievement behaviour, whereas maternal affection and independence training were less important. Yet it was found that children with high n Achievement scores were significantly less dependent on adults for help and emotional support.

An additional factor in family life which plays a role in the formation of a child's achievement motivation is the number of siblings. Rosen (1961) found that boys from a small family tended to have higher n Achievement scores, and Sampson (1962), who investigated the birth order of three independent samples totalling 265 subjects, found that first-born persons had a significantly higher n Achievement score than later born individuals.

Lastly/...

Lastly, a note of caution may be appropriate, as Mednick and Shaffer (1963) discovered that mothers' reports tended to be very unreliable.

They contrasted the reports made by mothers when their child was about nine years of age with records of earlier reports which had been made to their pediatrician when their child had been quite small. Most mothers had much difficulty in answering certain questions. Discrepant answers were given by 21% of the mothers for the duration of breast feeding; 40% for completion of toilet training; 62% for the age at which weaning took place; and 25% for the age when their child started to walk.

These disturbing inaccuracies give a fair warning not to place too much reliance on reports of events which happened many years back.

In spite of these difficulties, certain trends in the origins of achievement motivation are discernible, although Rosen's (1961) provisions must be borne in mind. He stated that while many of the factors examined had relevance, effects were complicated, interconnected, and interdependent upon one another and difficult to assess individually.

3.2 Cross-cultural and social class differences in family attitudes on child-raising

The relevant question in this context is whether it has been convincingly demonstrated that cultures and social classes which differ in their general n Achievement level also show a divergence in their general family attitudes on child-raising; and, if this should be the case, whether the results obtained pointed in the same direction as those obtained through attitude analyses inside one particular culture or class.

The evidence presented in the following experiments, indeed, strongly suggests that cultural differences in child-rearing will be significantly related to distinctly different levels of achievement motivation.

In this cross-cultural context, it was the use of folk tales by McClelland and Friedman (1952) which established the possible presence of such a connection. The authors found a significant correlation between n Achievement scores obtained from folk tales of eight American Indian tribes, and the age and severity of independence training in these cultures. The stories of these eight tribes all revolved around the central character, a trickster coyote, but the form of the stories varied greatly.

The study undertaken by Child, Storm and Veroff (1958) is very similar, but it was conducted on a far larger scale. Twelve typical folk tales from each of 46 different cultures were selected and analyzed; for an additional six cultures between 8 and 11 tales per culture were also examined. Subsequently, socialization practices, known through ethnographic research, were classified on a seven-point scale for each of four different variables.

It was found/...

It was found that n Achievement scores were positively related to variables of socialization which were concerned with the attachment of affect (positive or negative) to achievement-oriented behaviour, especially in societies where non-indulgence and general rigidity were characteristic of parental behaviour.

Lastly, it was found that the level of n Achievement was negatively related to general rigidity of socialization and possibly related to general indulgence. The authors concluded,

> "Conceivably this may indicate that low rigidity and high indulgence ... favour the child's identification with adults and thus tend to produce preoccupation with achievement just because conformity to adult standards of excellence in skill is everywhere difficult or impossible for children to achieve."
>
> (Child, Storm and Veroff, 1958, p.492)

Additional cross-cultural evidence for the negative influence of father domination on a high n Achievement level was presented by Rosen (1962) who compared 346 Brazilian with 427 U.S. - American boys, aged 8 - 14. The samples had been carefully matched for age and social class. Rosen found that Brazilian boys obtained significantly lower n Achievement scores on the average. It was established by questioning that Brazilian mothers were less likely to train their sons in self-reliance, autonomy, and achievement. Rosen stated that this de-emphasis was associated with the common type of family structure in Brazil, which is of a father-dominated and authoritarian nature.

This strong suppressive effect of father dominance was also found in a cross-cultural study by Bradburn (1963), involving a comparison of Turkish and U.S.-American males. Young Turkish executives who had been less dominated than others (as measured by the subjects' age when their fathers died or when they first lived apart from their fathers), had significantly higher n Achievement

scores/ ....

scores than men who had been more dominated. The American sample obtainedhigher n Achievement scores all round.

A negative correlation between authoritarian child training attitudes and high n Achievement level was also found for a sample of male Northern U.S. Negroes by Nuttall (1964).

McClelland, Rindlisbacher and deCharms (1955) found that Max Weber's hypothesis on the positive link between Protestantism and greater entrepreneurial activity (concomitant with a higher level of achievement motivation) was confirmed in a comparative study of Protestant, Jewish, Irish Catholic, and Italian Catholic groups in the U.S. Results showed that the two Catholic groups (who had a lower n Achievement score) expected independence of their children later than the Protestant or Jewish groups. Furthermore, as educational level plus economic status increased, it was found in all groups that parents expected earlier independence and task mastery of their children.

Substantial evidence has also been accumulated as regards the differences in child rearing between working-class and middle-class families in the Western culture, as well as its influence on the level of achievement motivation.

Rosen (1956) has shown that middle-class school children obtained significantly higher n Achievement scores than either upper-class or lower-class children, as has been mentioned previously.

Douvan (1956) drew attention to the fact that in several studies, notably that of Ericson (1947), it had been found that the environment of the middle-class child in the United States made earlier and more consistent demands for personal attainment than that of the working-class child.

Douvan/...

Douvan replicated these findings and discovered significant differences between middle- and lower-class children as regards n Achievement score level. She concluded that the pattern of achievement motivation a child developed depended on the class subculture in which it was trained.

A later study by Rosen (1959) confirmed previous results. Here too, it was found that Jewish children were expected to be independent earliest (mean age = 6.83 years), and Italian children latest (mean age = 8.03 years). Achievement values were more characteristic of American Greeks, Jews, and white Protestants than of French Canadians, Southern Italians, and Negroes. The former also possessed higher educational aspirations. Rosen found that social class and ethnicity interacted in influencing achievement motivation. When social class was controlled, however, ethnic differences in achievement still persisted.

C H A P T E R IV

The n Achievement measure

and similar tests

The n Achievement measure and similar tests

There is a considerable number of tests which claim to measure achievement in one or another aspect. The scores obtained on many of these tests have been compared with those of McClelland's n Achievement measure, mostly with negative results.

The following tests were investigated in this connection:-

a) the Edwards Personal Preference Schedule (EPPS);
b) the French Test of Insight;
c) the Iowa Picture Interpretation Test (IPIT);
d) the Manifest Anxiety Scale (MAS);
e) diverse other questionnaires on achievement value orientations;
f) the test of Graphic Expression by Aronson;
g) a self-scoring n Achievement measure.

4.1 The Edwards Personal Preference Schedule (EPPS)

Edwards (1954) developed a scale measuring individual differences in the sphere of personal preferences, which can be scored for various personality needs, among them achievement. The subject is forced to make a choice between two statements expressing alternative needs. The desire to appear in a good light, which usually distorts any self-description of motives, is corrected to some extent by the forced-choice technique, but even here there is no certainty whether the ultimate choice is dictated by unconscious motives or by the conscious and often inaccurate self-picture a person has.

Although the EPPS has often been used as a measure of achievement, its correlations with McClelland's n Achievement measure have been insignificant:- Bendig (1957), Melikian (1958), as well as Himelstein et al. (1958) did not find any significant correlations between these two measures.

All/...

All of these authors agree that the two tests must be measuring different aspects of achievement motivation and warn about the danger of using them interchangeably.

It is unfortunate that Edwards also attempts to measure "n Achievement", thus confusing the issue to a considerable degree. McClelland (1953) pointed out that he and his co-workers had chosen the designation "n Achievement" precisely for the reason that it should point to his own method of obtaining and scoring fantasy responses to TAT-type cards and no other.

Since it has been repeatedly proved that the EPPS and the n Achievement measure do not test the same personality trait, no research on achievement motivation which utilised the EPPS has been included in this study.

4.2 The French Test of Insight

The "Test of Insight", developed by French (1958), also claims to measure the need for achievement. In contrast to McClelland's measure, subjects are asked to express their opinion in response to verbal cues; e.g., "Bill always lets the'other fellow'win", or, "Joe is always willing to listen". Responses are then scored in a manner similar to McClelland's system.

Although this approach looks promising, it does not seem to measure the same trait as McClelland's n Achievement measure. Himelstein, Eschenbach and Carp (1958) administered both tests to 298 Air Force Academy cadets and found the intercorrelation to be statistically insignificant.

It is/...

It is for this reason that all problems connected to achievement motivation which used the French Test of Insight as the only criterion were excluded from the present study.

4.3 The Iowa Picture Interpretation Test (IPIT)

The IPIT is a test where subjects are asked to rank four alternative interpretations of each of ten TAT-cards; (Hurley, 1957). Consistent preferences for a certain kind of interpretation yield, among others, a measure of achievement imagery.

However, no significant correlations were found when Williams (1955) compared this scale with McClelland's n Achievement measure.

4.4 The Manifest Anxiety Scale (MAS)

The Manifest Anxiety scale was developed by Taylor (1953) and is sometimes thought of as measuring human motivation (see McClelland; 1958a). However, both Raphelson (1957) as well as Bendig (1957) have reported insignificant correlations between the MAS and McClelland's n Achievement measure:

Raphelson (1957): $r = -.25$, $n = 25$ male students;
Bendig (1957): $r = .06$, $n = 136$ male and 108 female students.

4.5/...

4.5 Other diverse questionnaires on achievement value orientations

Questionnaire-type methods, asking the subject about his or her conscious achievement value orientation, have been in use for a long time. Invariably, the scores obtained from an analysis of those questionnaires did not correlate significantly with McClelland's n Achievement measure.

Lowell (1950) found no significant relationship between n Achievement scores and answers on a rating sheet to questions like, "How hard do you usually strive for personal achievement?"

The same negative results have been reported by:

De Charms, Morrison, Reitman and McClelland (1955),
Child, Frank and Storm (1956),
Krumboltz and Farquhar (1957),
Strodtbeck (1958),
Hills (1958),
Broverman, Jordan and Phillips (1960),
as well as Marlowe (1959.

These overwhelmingly negative results were summarized as follows by De Charms, Morrison, Reitman and McClelland (1955):

> "Measuring achievement motivation directly by asking the subject, or indirectly by content analysis of his or her stories tends to produce two different scores which signify different things as far as the rest of the subject's behaviour is concerned. A consciously high desire for achievement tends to be associated with conformity, a a high valuation of expert authority and a low valuation of unsuccessful people. On the other hand, a high n Achievement score as measured indirectly through projective material tends to be associated with internalized standards of excellence which lead to superior performance of various sorts in task situations." (in: Studies in Motivation, p.423)

And/ ....

And McClelland (1958a), after reviewing all the negative findings in this area summarised the position as follows,

> "Some day a consistent relationship of n Achievement score with a choice or interest or self-descriptive measure of motivation may show up, but it has not to date, despite some fairly extensive attempts to find it. The conclusion seems inescapable that if the n Achievement score is measuring anything, that same thing is not likely to be measured by any simple set of choice-type items".
>
> (Motives in Action, Fantasy and Society, p.38)

4.6. The test of Graphic Expression by Aronson

However useful the measurement of achievement according to McClelland's method might be, it is restricted in scope because of its verbal nature. It is difficult, if not impossible, to use it with very young children, in extinct civilizations and in many primitive contemporary cultures. Furthermore, test anxiety in some subjects may cause them to obtain lower n Achievement scores than they really should have obtained.

Aronson (1958) therefore developed a non-verbal test to measure n Achievement which utilised an analysis of graphic expression in response to designs of various lines which had been projected tachistoscopically onto a screen for 1.8 seconds.

Using 196 male students as sample, Aronson (1958) found that subjects with high scores on the n Achievement measure reproduced:

1. more single, unattached, discrete lines as opposed to the "lows" who drew more fuzzy, overlaid lines;

2. left/ ....

2. left a smaller margin at the bottom of the page;
3. reproduced more diagonal configurations;
4. drew more S-shaped (two-directional, non-repetitive) lines;
5. and reproduced less multiwave lines, (i.e. lines consisting of two or more crests in the same direction).

By means of this analysis, Aronson (1958) obtained the post-hoc findings that the drawings of subjects with high n Achievement suggested more motion, their lines tended to be more non-repetetive, were more unrestricted in space and more economical in movement.

This novel method of scoring the need for Achievement has been used extensively by McClelland (1961) to ascertain the n Achievement level of ancient Greece, pre-Incan Peru, etc. (see pp.86- 87).

As the present study limits itself to the investigation of McClelland's n Achievement measure, the subsequent findings reported by Aronson et al. will not be discussed further.

In any case, it is doubtful whether the peculiarities in graphic expression of high achievers will be replicated everywhere. Close (1961), for instance, found that these positive findings of Aronson were not substantiated when she tested 95 medical students at the University of Cape Town.

4.7 A self-scoring n Achievement measure

De Charms (1958) developed a self-scoring system aimed at speeding up the lengthy scoring of n Achievement protocols. After six imaginative stories had been written according to McClelland's instructions, each subject, who had been given a form containing

several/...

several sample plots for each stimulus card, was asked to rank order the similarity of those plots to his or her own stories. The total score was arrived at by adding the ranking of motive-relevant plots. These scores were then compared with those obtained by means of the usual content analysis.

The total sample of 183 students was divided into three groups (high, medium, and low n Achievement scores) according to the self-scored results. It was found that the mean n Achievement scores of these groups, as obtained by means of the standard content analysis, significantly differentiated all three groups ($p < .001$).

De Charms concluded that the self-scoring procedure was less sensitive and reliable than the normal method, but that it was satisfactory for the identification of high and low achievers, e.g., in a large group where only the extremes were of interest. By making use of this method, he stated, more subjects could be used to replicate results, as scoring was much easier.

C H A P T E R V

General experimental applications

of the n Achievement measure

5.1 The relationship between the motivation to achieve and the motivation to avoid failure

Atkinson (1957) stated that any theory of motivation had to concern itself with two problems of behaviour:

a) The question why a person chooses one path of action among a number of possible alternatives, and

b) The question about the strength of the action tendency once it has started and its inclination to keep going for a period of time in a given direction.

In trying to answer these questions, Atkinson drew attention to the findings of McClelland (1956) who concluded that persons with high achievement motivation were significantly more likely to take moderate or calculated risks in preference to speculative or very safe undertakings.

Earlier studies in this field were concentrated on trying to explain the relationship between motive strength, (as deduced from TAT cards), and overt goal-directed performance. Atkinson proposed that,

> "n Achievement scores obtained from thematic apperception are indices of individual differences in the strength of achievement motive, conceived of as a relatively stable disposition to strive for achievement or success. This motive disposition is presumed to be latent until aroused by situation cues which indicate that some performance will be instrumental to achievement. The strength of aroused motivation to achieve as manifested in performance has been viewed as a function of both the strength of motive and the expectancy of goal attainment aroused by situation cues."
>
> (Atkinson, 1957, 359 - 360)

Apart from the concepts "motive"and "expectancy", Atkinson introduced a third variable, namely that of "incentive". These three concepts he defined as follows,

"Motive/...

"Motive: A disposition to strive for a certain kind of satisfaction, as a capacity for satisfaction in the attainment of a certain class of incentives. The names given motives - such as achievement, affiliation, power - are really names of classes of incentives which produce essentially the same kind of experience of satisfaction: pride in accomplishment, or the sense of belonging and being warmly received by others, or the feeling of being in control and influential."

"Expectancy: A cognitive anticipation, usually aroused by cues in a situation, that performance of some act will be followed by a particular consequence. The strength of an expectancy can be represented as the subjective probability of the consequence, given the act."

"Incentive: The relative attractiveness of a specific goal that is offered in a situation or the relative unattractiveness of an event that might occur as a consequence of some act."

(Atkinson, 1957, pp. 359-360)

Atkinson subsequently concerned himself with the aims of two kinds of motives, the first being approach tendencies which maximize satisfaction of some kind, the other being avoidant tendencies which minimize pain. The achievement motive is here seen as a disposition to approach success, and the avoidance motive a disposition to avoid failure.

Atkinson now hypothesized that,

"the strength of motivation to perform some act is assumed to be a multiplicative function of the strength of the motive, the expectancy (subject probability) that the act will have as a consequence the attainment of an incentive, and the value of the incentive: Motivation = f (Motive x Expectancy x Incentive)."

(Atkinson, 1957, p. 360)

Generally, the determination of motivation to perform an act is very complex. In the ideal situation, the only reason for taking action is to satisfy a particular motive. Obviously, the ideal situations rarely happen in real life and can only be approximated by an experimental situation. Such an artificial situation can be brought about by asking a subject to choose among tasks which differ in degree of difficulty.

By means/...

By means of a mathematical model Atkinson predicted that the relationship between resultant motivation and subjective probability of success would be a U-type function for subjects whose motive to avoid failure was greater than the motive to achieve success, negative at all levels of subjective probability of success, with a maximal negative value of 0.5 subjective probability of success.

On the other hand, he predicted that for subjects whose motive to achieve success was greater than the motive to avoid failure, the function would be an inverted U-type. He hypothesized that the relationship between resultant motivation and subjective probability of success would be positive at all levels of subjective probabilities of success, with maximal positive value at the 0.5 subjective probability of success.

Thus a person in whom the achievement motive was stronger than the fear of failure was likely to set his level of aspiration in the intermediate zone, (50:50 chance of succeeding), where there was moderate risk. On the other hand, a person whose motivation to avoid failure was stronger than the achievement motive should choose either the easiest of the possible tasks, or, conversely, should choose either a very difficult one which would make success a near miracle. By choosing either one of these alternatives, Atkinson argued that a person's anxiety about possible failure would be minimized.

This theory has since been examined critically by many authors. It was verified in an experiment carried out by Atkinson (1958b) himself. He varied the incentive of performing well at arithmetical tasks by offering various money prizes to persons, some of whom had been told that their chances of winning were one in twenty, others one in two, etc. (N = 124 female students)

He discovered/...

He discovered a curvilinear relationship between differences in expectancies in winning and performance. When the stated probability of winning was very low, (one in twenty), the level of performance was lowest. It increased as the chance of winning improved and reached a maximum when the stated probability was one in two. Beyond this, it decreased as the stated probability of winning increased to three in four.

It was therefore established that subjects tried hardest when they were most uncertain (50:50 probability) about the outcome of their efforts.

Atkinson discussed these findings as follows,

> "When the chance of winning seems remote even if a great effort is made, it doesn't seem worth the effort. When the chance of winning is almost virtually assured by very favourable odds, in this case 3 out of 4, there is little point in expending more effort than is necessary to assure performing better than the worst of the three competitors. But when the odds of winning or losing are near equal, there seems a good chance that a real burst of effort will throw the balance your way."
>
> (Atkinson, 1958a, pp. 295-296)

Further experimental confirmation of this hypothesis has since been published by many authors.

Clak, Teevan and Ricciuti (1956) had already found in an experiment that persons who grossly over- or underrated their chances of success in an imminent university examination by answering a level-of-aspiration questionnaire had significantly lower n Achievement scores than students in the middle of the continuum, who predicted their success more accurately.

Feather (1958) carried out similar experiments with younger school boys (n = 192), and found that here, too, the mean goal discrepancy scores (from a questionnaire asking, "What score will you try to get next time?"), given before a series of tests, were inversely correlated with n Achievement scores.

McClelland (1958) studied this problem in very young children who were still at kindergarten or in the lowest school classes, with Aronson's "doodle" - test (see Ch. IV, 4.6).

He also found that in his total sample of 58 children individuals with high n Achievement scores tended to take moderate risks while those who obtained low n Achievement scores chose either very safe or very speculative enterprises significantly more often.

McClelland came to the conclusion that in children individual differences were likely to appear already in their fifth year.

Atkinson's model implies that persons who are largely motivated by fear of failure should tend to show a higher level of all-round anxiety.

Anxiety level has been assessed by the "Manifest Anxiety Scale" (MAS), published by Taylor (1953). This scale consists of refined MMPI items which purport to measure general manifest anxiety. Another scale is the "Test Anxiety Questionnaire" (TAQ) developed by Mandler and Sarason (1952). It attempts to show up the degree to which a person experiences anxiety before, during, and after three typical kinds of testing situations.

Raphelson (1957) found that subjects high on the n Achievement measure obtained an inverse correlation with the "Test Anxiety Questionnaire" ($r = -.43$), which was significant at the 5% - level of confidence.

A correlation with scores on the Manifest Anxiety Scale pointed in the same direction, but failed to reach statistical significance. The sample used, was, however, fairly small, ($n = 25$ male students.)

When a larger sample of 136 male and 108 female students was used, as in the case of the experiment carried out by Bendig (1957), the correlation between n Achievement scores and the Manifest Anxiety Scale was again insignificant; ($r = .06$).

However, in the previously quoted experiment by Raphelson (1957) use was also made of a physiological measure, namely that of increase in skin conductance level, which has been found to correlate with emotional states. Results were in the predicted direction: Subjects low on n Achievement and high on the TAQ showed a significantly greater increase in skin conductance during an experimental task which had no solution. Opposed to this, subjects considered to be relatively non-anxious, (high in n Achievement and low on the TAQ score), actually showed a decrease in skin conductance.

In a study undertaken by Mahone (1960), Atkinson's theory was clearly substantiated. Testing 135 male students, it was found that significantly more students low on n Achievement and high on achievement-related anxiety were classed as "unrealistic" in their vocational aspirations and vice versa.

The results/...

The results of a study by Atkinson, Bastian, Earl and Litwin (1960) also supported the original hypothesis. Here, use was made of betting preferences which the subjects showed under changing odds. Further experimental confirmations of Atkinson's theory have been published by Feather (1961), Littig (1963), and Brody (1963).

On the other hand, both Hurstein and Collier (1962), as well as Smith (1963) found that Atkinson's hypotheses were not, or only partly, confirmed by their experimental findings. But the former admitted having used different TAT - type cards from the ones normally used, and the latter found that the predicted relation between achievement-related motives and goal-setting did in fact occur, although it was only under "relaxed" conditions.

Lastly, Reitman (1961) made the interesting finding that subjects with only moderate achievement scores (found to be associated with evidence of "fear of failure"), scored the highest points in the recall of success and unrelated stories, but obtained the lowest scores on recall of stories dealing with failure, when tested under "achievement-oriented" conditions. When tested under "neutral" conditions, this group obtained the highest scores for recalling failure stories.

5.2 n Achievement and conformity & attitude change

A number of studies have followed in the wake of Sherif's (1935) experiments where subjects were asked to respond to ambiguous task stimuli while they were made aware of the other subjects' responses which in reality were predetermined and often false. It was commonly found that this information caused the unwitting subject to change in the direction of general consensus.

It was established, however, that persons with a high n Achievement score tended to conform significantly less than low achievers, when placed in a simulated group atmosphere where all the other participants took a different view from that of the subject; (Burdick, 1956).

Samelson (1955) carried out a similar experiment and found that n Achievement was negatively related to conformity, though weakly. However, when the conflict situation was reduced, subjects with low n Achievement became substantially more independent in their judgments, while the high n Achievement subjects showed no change. This caused Samelson to state,

> "Thus our results suggest that conformity is not a stable habit of certain personalities, irrespective of the situation, but that different personality variables may be associated with conforming responses under different conditions...Regarding the interpretation of n Achievement, the implication seems to be that to assume a stable association between achievement motivation and independence may be erroneous. In our culture, achievement may be more dependent on the evaluation of performance by other persons than on the success of independent striving for private and self-set goals. The individual high in n Achievement may be the person most sensitive to external demands for good performance."

and, furthermore,

> "...if a strong effort is not particularly efficient for the task, he may perceive agreement with the majority as instrumental to success, at least part of the time, and his motivation to be correct may induce him to change his report."

(Samelson, 1955, in: Atkinson, 1958, p.433)

5.3/...

n Achievement and academic achievement

The success of a person at school or university is most easily assessed by averaging the examination marks received; sometimes comments of teachers or lecturers are utilized as well. Although it is of great importance to discover the true relationship between n Achievement and academic achievement, it is clear from the outset that the latter is a very impure measure indeed, as success in this field depends on many unknown factors.

It was therefore not surprising to find very inconsistent results when reviewing the relationship between these two different measures of achievement.

The following authors found statistically insignificant correlations between McClelland's n Achievement scores and academic achievement:

Atkinson (1950)
Lowell (1952)
Parrish and Rethlingshafer (1954)
Bendig (1958)
Wilson and Morrow (1962)

On the other hand, Morgan (1952), testing a group of 132 male students, found that high scholastic achievers obtained significantly higher n Achievement scores, ($p < .02$), and McClelland (1953) obtained a correlation of .51 ($p < .01$) between n Achievement scores and verbal plus mathematical scholastic aptitude test results; (n=30 male students).

Ricciuti (1954) also found positive correlations, but these were very low (r= from .16 to .29), even after the effects of

intelligence/...

intelligence had been partialled out.

In a cross-cultural study by Strodtbeck (1958), it was found that the n Achievement measure was able to distinguish between high and low scholastic achievers, the sample consisting of Jewish and Italian boys in the United States.

Rhona Rosen (1961) compared n Achievement scores of 30 Jewish boys, aged 9-10 years, from a Cape Town school, with their scores on a reading comprehension test and found a significant differentiation between "highs" and "lows" which was in the expected direction; pupils high on n Achievement also being good at comprehension. ($X^2=4.8$; $p < .05$)

Cole, Jacobs et al. (1962) contrasted two groups numbering 15 males and 8 females each; one group being of outstanding performance (grade-point averages, examinations and a brief interview), the other being a control group. It was found that the n Achievement scores did not differ for the females in the two groups, but for the males, the control group obtained significantly higher n Achievement scores, ($p < .01$). This surprising finding is in contrast with all results obtained previously. Due to this, another study with a much larger sample of 130 male students were was undertaken, but it was again found that higher achieving males had lower n Achievement scores ($p < .06$). The results were interpreted as pointing to the possible fact that the cards administered might have elicited fear of failure responses, and, since it was the subjects' first week at college, persons with high academic achievement might have been more anxious and thus gave fewer achievement responses in their fantasy.

Crootof/...

Crootof (1963) contrasted "bright underachievers", "bright achievers" and "normal achievers", who had been classified according to grade point averages, intelligence and Iowa Picture Interpretation Test (IPIT) scores, as regards their scores on the n Achievement measure. He found that "bright achievers" as well as "normal achievers" had obtained significantly higher n Achievement scores than "bright underachievers".

Lastly, Littig and Yoracaris (1963) found that there was no significant correlation between academic achievement and n Achievement scores when 206 females were tested in a small community. On the other hand, a sample of 190 males yielded a positive correlation between n Achievement scores and academic achievement.

According to the authors, it is an unsolved problem whether n Achievement is one of the factors influencing success in academic affairs, or if educational experiences tend to increase the probability that subjects will verbalize achievement themes; though the studies of Winterbottom (1953) on child-rearing and n Achievement suggest the former.

5.4 n Achievement and the Self Concept

The only published study to date on this relationship has been carried out by Martire (1956).

He wanted to investigate the nature of differences in self concept among four groups of subjects (n = 53 male college students) classified according to the strength and generality of achievement motivation.

Weinberger (1951), in an unpublished thesis, had already found that subjects with high n Achievement more frequently rated achievement-related traits as important, although they did not think of these as being characteristic of themselves. This suggested a discrepancy between self-Ideal and self ratings.

Martire (1956) confirmed these findings, as here, too, subjects high on n Achievement showed a significantly greater discrepancy between their self-Ideal and self ratings than those low on n Achievement.

5.5 n Achievement and aesthetic preference

The hypothesis that aesthetic preference and the motivation to achieve are significantly related was confirmed in studies carried out by Knapp (1958) and Green & Knapp (1959). So as to exclude possible object identification which any rating of pictures would have caused, it was decided to use different Scottish tartans which varied only in very specific and measureable ways, e.g., predominant colour used, number of colours present, and so on.

By showing 30 different tartans of uniform design to 68 university undergraduates, Knapp found that subjects high on n Achievement preferred subdued, blue colours; and the subjects low on n Achievement tended to choose ones whose dominant colour was red. Knapp pointed out in conclusion that according to these findings, n Achievement should be thought of not only as a need in the traditional sense, but also as an ego strategy. As such it could be defined as a general policy of well-being through taking an active manipulatory role as regards the individual's surroundings. The person with high n Achievement , Knapp hypothesized, wants to "do unto" his environment, and the one low on n Achievement wants the environment to "do unto" him.

Now the Gestaltists have observed that blue is generally a "soft" and red a "hard" colour; blue a preferred "ground" colour and red a "figure" colour. The deduction is thus permissible that subjects high in n Achievement require that their environment be "soft", while they themselves are "hard"; they wish to manipulate rather than be manipulated.

The general hypothesis therefore concludes that a high n Achievement culture will tend to dislike strong and assertive stimuli generally in fashion, dress and ornament. It has been shown that

n Achievement is significantly higher among middle class than among lower class children, (see Ch. III, 3.2), and that the dress of the middle class is also generally more subdued. The same can be said for the relative austerity of dress of the Puritans and other Nonconformists, as compared to the Cavaliers, and the former were far more achievement-oriented: (McClelland, 1961).

Another confirmation of this hypothesis was given by McClelland (1961), who contrasted the state flags of the Northern part of the U.S. (Puritan tradition) with those of the South (more Cavalier tradition), and found a significant difference at the 1% - level of confidence to exist as to general choice of bright or subdued colours. Most of the Northern states' flags are predominantly blue-green, those of the Southern states red-yellow.

Furthermore, McClelland (1958) found that children in a U.S. kindergarten who had obtained high n Achievement scores, tended to use blue and green crayons more often, while those with low n Achievement preferred red and yellow colours. This difference was also found to exist in different cultures, as McClelland (1961) obtained similar results by testing boys from Germany, Brazil, and Japan.

McClelland went on to say that in the light of these findings, the hypothetical connection between ascoticism and economic development, as first put forward by Max Weber in his book, "The Protestant Ethic", should now be defined differently from the concept of "asceticism". It should not so much mean a renunciation of the pleasures in this life, but rather,

> "...avoiding intrusive stimuli, so that one may act on rather than be acted upon by the environment. Therefore the question

is no longer/...

is no longer whether entrepreneurs deny their impulses, or even whether they avoid excess, but rather whether they avoid a situation in which they are no longer in control and are "pushed about", as it were, by sights and sounds from without, by strong stimuli in the environment."

(McClelland, 1961, pp.312-313)

5.7 n Achievement and tests of perception and thought

a) Linguistic usage

Zatzkis (1949) undertook a study to discover which linguistic patterns would be shown more frequently by subjects high in n Achievement. After analyzing the subjects' essays on "What I would ideally like to get out of a course in psychology", (n=26 male students), he found that the subjects with high n Achievement wrote essays containing:

significantly more abstract nouns ($p < .01$)
significantly more anticipatory tenses ($p < .05$)
significantly less negations ($p < .05$)
significantly less dependent clauses ($p < .01$)

McClelland (1953) interpreted these findings as follows,

> "The meaning of these results seems clear. People who are highly motivated for achievement think more often in anticipatory and generalized terms. They are concerned with general and vague life goals (which perhaps can never be achieved because they are not specific enough). They want to relate the "now" to the "then", to see the connection between what they are studying and what they want to do later." ("The Achievement Motive", p.253)

But, on the other hand, Powell (1960) found no significant relation between n Achievement scores and Thurstone's Primary Mental Abilities Test, vocabulary section, testing 8 male and 18 female students at the University of Cape Town.

b) Sentence completion tests

Responses for a sentence completion test were scored for achievement associations and the total score contrasted with the results of the n Achievement measure, (McClelland, 1953, pp.254-257).

In an/...

In an experiment numbering 27 subjects it was found that those with high n Achievement showed significantly fewer achievement completions. This finding is interpreted in the same light as the results obtained with all the other questionnaires (see p. 53), as the sentence completion test is in a way also a self-judgment and therefore under conscious control of the individual being tested.

5.8 n Achievement in women

Although a vast body of information on the n Achievement measure has been accumulated to date, it is almost exclusively the result of research on male subjects.

Comparable studies of achievement fantasy in females have shown neither consistency with the results for males nor internal consistency with each other. This is a great drawback for the construction of a comprehensive theory on achievement motivation.

The few studies on n Achievement in women show inconsistent results. Veroff, Wilcox and Atkinson (1953) found that females failed to show the expected increase in n Achievement scores when subjected to experimental conditions in which intelligence and leadership ability were stressed, although this rise had been found in males, (see: McClelland, Clark, Roby and Atkinson, 1949).

McClelland (1953) queried why women did not show an increase in n Achievement scores as a result of achievement-involving instructions, but he could not furnish an explanation which is wholly satisfactory. Apparently the usual arousal instructions simply did not increase achievement striving in women.

Field (1951) found that n Achievement scores in women could not be raised by recourse to intelligence and leadership as in men, but they did show a significant increase when experimental conditions were introduced which aroused a concern about social acceptance. This finding was reversed by Angelini (1955) who studied a sample of college women in Brazil: Here an appeal to intelligence and leadership raised the n Achievement score level above that of the control group whose increase was attained by arousing concern about social acceptance.

U.S. American/ ....

U.S.-American and Brazilian women may, of course, differ considerably in their respective levels of n Achievement, as it is far more difficult for a Brazilian girl to enter a university than it is for the average female in the United States. Thus only highly competitive Brazilian girls who have placed great stress on intellectual accomplishment would be likely to make it, in contrast with the relative ease, considering the multitude of colleges in the U.S., which any girl there will have.

One can therefore tentatively conclude that Brazilian girls going to university are more career- and intellectually oriented.

More recently, Lesser, Krawitz and Packard (1963) have attempted to replicate Angelini's findings in the United States. If the hypothesis about U.S.-Brazilian differences hold true, it could reasonably be expected that those few girls accepted by an elite school for intellectually gifted girls in the States would show the same traits as the ones Angelini observed in Brazil.

But again, experimental conditions stressing intelligence and leadership ability did not increase the achievement fantasy of a sample of these girls when administered the usual TAT-type cards featuring male figures. However, academically overachieving girls did display the expected increase in n Achievement scores under achievement-arousing conditions, but only when responding to cards depicting female figures. In contrast to this, n Achievement scores of academic underachievers increased when responding to pictures with males, but did not increase when given cards showing females.

It can be seen from the above experiments that far too few consistent results are available on the question of achievement fantasy in females for any definite conclusions to be drawn.

CHAPTER VI

Applications of the n Achievement measure

in the study of society

Applications of the n Achievement measure in the study of society

The n Achievement measure has originally been developed and tested in experimental laboratory situations. Therefore the question is now relevant whether it can be fruitfully applied to the study of society in general.

Previous discussions on the use of the n Achievement measure have dealt with,

a) its general experimental applications (pp. 60-87),

b) its usefulness in the search for the origins of achievement motivation, (pp. 40-52).

Strictly speaking, one could classify some experiments mentioned under (a), as well as all studies on the origins of achievement motivation, under the present heading, as comparatively few phenomena in the psychological field are of a non-social nature and therefore totally unrelated to social aspects. However, for purposes of clarity it was decided to include research in the present chapter only if it specifically emphasized the application of the n Achievement measure to the study of society.

It was furthermore decided to place all cross-cultural studies utilizing the n Achievement measure under a special heading, so that they can be read in conjunction with the chapter on cross-cultural research, (see pp. 88-104).

Many/...

Many studies dealing with the n Achievement measure in a social context have been published. They can conveniently be classed under three main headings:

1. n Achievement and class differences within a society,
2. n Achievement as related to occupational preference and entrepreneurial activity,
3. changes in the n Achievement level of a country over time.

6.1. n Achievement and class differences within a society

The TAT-type cards have been used with success to test whether there was any significant difference between working-, middle-, and upper-class people as regards their achievement motivation. Results indicate that middle-class subjects obtain significantly higher scores on the n Achievement measure than either working- or upper-class members.

Douvan (1956) contrasted school children of the working class with those of the middle class under success-failure conditions. She found that mean n Achievement scores for working-class subjects showed greater variations than did the means of children of the middle class. Both groups responded similarly to a material reward condition, but the achievement strivings of subjects from the working class dropped significantly when the material reward was removed, while the responses of the middle-class subjects were little affected by this, maintaining a consistently high n Achievement level. Douvan concluded that a child's pattern of achievement motivation depended on its class subculture in which it grew up and with whose values and behaviour requirements it was confronted.

The finding/...

The finding that upward mobility was greater among members of the middle than of the lower class was attributed by Rosen (1956) to the particular motives and values of the former. He also found that middle class school children had significantly higher n Achievement scores than those in the lower class. There were too few subjects in the category labelled "highest status group" to make any differences statistically significant, but the latter did tend to score less than the middle class, also.

Pepinsky and Borow (1962), while working on academic motivation, arrived at the same conclusions, though the correlations were rather low. The relationship between socio-economic class and achievement motivation was positive (r = .38 for males and .25 for females.) The middle class group contributed significantly more overachievers than the others.

These views were endorsed by Hoffman, Mitsos and Protz (1958) also. They hypothesized that middle-class performance should be relatively little affected by external reward, and therefore these subjects should show only little improvement under such conditions; (financial reward). The results obtained were, however, slightly more complex. Whereas it was found that working-class striving and performance tended to rise uniformly in response to reward stimuli, the reward-induced increases in achievement striving tended either to raise the performance level in middle-class subjects, or to touch off anxiety responses that lowered it. This finding also confirms the hypothesis of Atkinson (1957) on hope of success versus fear of failure (pp.60-66)

n Achievement/...

6.2. n Achievement as related to occupational preference and entrepreneurial activity

The relationship between n Achievement scores and occupational preference has been examined by many authors. Minor and Neel (1958) found that in a group of male veterans, prestige ranking of occupations was positively related to n Achievement scores.

Kaltenbach and McClelland (1958) also found that persons with high achievement motivation tended to engage in activities that led their follows to judge them as successful, and that their social status in three small American towns was higher than that of low achievers.

The hypothesis that persons in jobs with quite definite entrepreneurial characteristics would obtain higher scores on the n Achievement measure was confirmed in a study by Meyer, Walker and Litwin (1961) who compared entrepreneurial managers with non-entrepreneurial specialists.

The most important work in this field was carried out by McClelland in his book, "The Achieving Society" (1961). Some findings from this book relevant to the theme under discussion will be shortly outlined here, as well as in the chapter on cross-cultural research carried out with the n Achievement measure.

McClelland asked the question what would happen if a large number of individuals high on n Achievement collected in

a given/...

a given society at a particular time. He hypothesized that they were likely to form a class of entrepreneurs who would as a group be extremely busy, who would make innovations, and who were more likely to succeed at whatever they attempted than the average person. They ought to be especially good in business, as this would involve risk-taking and personal responsibility as well as measurable results.

McClelland found that occupational preference was not determined by a person's n Achievement level only, but that it was a joint function of class, status, n Achievement level and prestige (or perceived difficulty). Utilising the results obtained by Atkinson (1957), he found that subjects with high n Achievement scores preferred moderate risks either to very difficult or to very light ones. Boys from the middle class preferred business occupations (as this presented them with a 'moderate risk'), while with upper-class boys the n Achievement scores correlated negatively with preference for business occupations, as these tended to be seen as "too easy" for them.

Similar results were published by Muttall (1964), who tested urban Negroes in the United States and found that occupational status was positively related to n Achievement level. In the American South, Negroes with high n Achievement scores also had significantly higher incomes.

6.3 Changes in a country's level of n Achievement scores over time

Strauss and Houghton (1960) found a significant decline in individualistic achievement and a concomitant increase in affiliation and co-operation values in the United States from 1924 to 1958 by checking editorials of the "National 4-H Club News" for achievement and affiliation imagery over those years.

The increase or decrease of n Achievement scores has been one of the major topics in McClelland's "The Achieving Society", (1961). He and his associates found fairly reliable means for testing n Achievement in prehistoric cultures (e.g., Pre-Incan Peru) by means of adapting Aronson's (1958) 'doodle' technique (see pp. 57-58) or by analysing fiction from different periods during the growth and decline of a country (e.g., ancient Greece, mediaeval England and mediaeval Spain).

By comparing the general n Achievement level at a certain period with a country's economic growth at that time, strong indications were found that a significant rise in the n Achievement level of a country tended to precede its economic growth, and a significant drop in n Achievement level preceded its economic decline. This, McClelland found, also held true for present-day nations, where the general n Achievement level was obtained by utilising stories from children's readers. It was concluded that the n Achievement score could be a sensitive barometer of the concern felt in a country for economic development.

Lastly, De Charms and Moeller (1962) investigated the achievement imagery in children's readers over the last 150 years (1800-1950) in the United States.

The resultant/ ....

The resultant curve was plotted against a graph showing the number of patents issued in the U.S. per inhabitant at the same time. A steady drop in achievement imagery was noted, together with a corresponding decline in patents issued per capita.

The considerable amount of evidence presented by McClelland (1961) and others in this area makes it evident that there is a low, but consistent interrelation between entrepreneurship and the level of n Achievement scores.

C H A P T E R VII

Methods of cross-cultural research in the psychological field

Methods of cross-cultural research

7.1 Descriptive accounts

There are innumerable descriptions of cultures, written, among others, by anthropologists, psychiatrists, psychoanalysts and journalists. These accounts usually consist of descriptions of countries and cultures about which the author has some knowledge, either personal, or through the study of literature on the topic. (e.g., Eich (1963): "Die unheimlichen Deutschen"; Lehnert (1958): "Der Sowjetmensch") According to Anastasi (1958), such works as those by Gorer (1948) and Mead (1942) on the American people fall into this category.

The weakness of this method lies in its tendency to oversimplify a society or culture by devoting too little attention to intra-cultural differences. There is usually also no check on the representativeness of the data quoted.

7.2 The field method

Here, according to Krech and Crutchfield (1962),

> "The anthropologist lives closely with the people he is studying. His data are secured by observation of the behavior of the members of the culture and by interviews with selected informants."
>
> (Krech and Crutchfield, 1962, p. 330)

This/...

This method is almost exclusively the domain of anthropologists, and is usually supplemented by biographical and autobiographical material.

The chief problem here consists in obtaining results whose reliability can be checked. This difficulty is sometimes highlighted by the occurrence of divergent reports on a particular group which has been investigated by two different anthropologists, e.g., in the two differing studies of Samoan society by Mead (1928) and Holmes (1958).

7.3 Quantitative methods

7.3.1 Content analysis

Krech and Crutchfield (1962) defined content analysis as being,

> "A method for the systematic and quantitative description of the manifest content of a communication. It consists in discovering and tabulating the frequency with which certain specified elements occur. The method has been used to describe culture by analyzing the manifest content of books, movies, and other communications within the culture".
>
> (Krech and Crutchfield, 1962, p.330)

Here the assumption is made that the contents of the popular communications in a particular society mirror the most frequent views and modes of behaviour of its members. Should this not be the case, the validity of the attitudes expressed would have to be questioned. Thus, Berelson (1956) concluded that the relationship between content of communications and the characteristics of the audience mirrored in it was not by any means clear. One should therefore beware of an over-interpretation of content data.

7.3.2/ ....

7.3.2 Experiments

By the term "experiment" one can, according to English and English (1958) understand,

> "A definite arrangement of conditions under which a phenomenon to be observed shall take place, with a view to determining for that phenomenon the respective causal influence of these conditions.
>
> (English and English, 1958, p.194)

Traits of different cultural groups can be compared by means of experimental results, e.g., sensory acuity (Woodworth, 1910); gestural behaviour (Efron and Foley, 1937); or reaction to optical illusions (Bonte, 1962). This method is predominantly concerned with the measurement of single cultural traits, rather than the overall assessment of a culture.

7.3.3 Tests

Psychological tests are seen by English and English (1958) as being,

> "A set of standardized or controlled occasions for response presented to an individual with design to elicit a representative sample of his behavior when meeting a given kind of environmental demand. The occasion for response most often takes the form of a question or similar verbal stimulus. ... it is now common usage to include as a test any set of situations or occasions that elicit a characteristic way of acting, whether or not a task, and whether or not characteristic of the individual's best performance. ... As distinguished from an experiment, the test seeks to measure differences between individuals, whereas the experiment eliminates differences or keeps them constant. But tests often form an essential part of experimentation in its wider sense."
>
> (English and English, 1958, p.547)

There exists/ ...

There exists an immense variety of tests, of which, however, only four types will be mentioned here, as they have been used in cross-cultural research most frequently:

questionnaires,
intelligence tests,
"culture-free" tests, and
projective tests.

7.3.3.1 Questionnaires

The use of questionnaires for cross-cultural studies in psychological research has become widespread. Here, one of the major problems investigated is the measurement of attitudes. Research has, for instance, focussed on the assessment of national stereotypes prevailing in a particular group or society. (e.g., MacCrone, 1937, in South Africa; Eysenck and Crown, 1948, in Great Britain; or the comparison of several nations by Gillespie and Allport, 1955).

Other, more clinically oriented questionnaires like the MMPI and anxiety scales (e.g. Singh and Kettig, 1962, on Indians and U.S. Americans), have also been used in cross-cultural research.

Another questionnaire which has found relatively widespread cross-cultural application is the "16 PF" by Cattell (1950).

It is beyond the scope of this short summary to list the multitude of questionnaires and their applications, but it is necessary to make a few critical remarks applying to almost all of them:

Most of these questionnaires have been validated with samples hailing almost exclusively from "Western" countries.

Furthermore/...

Furthermore, cross-cultural samples used, tended to consist mostly of school children and students. One must therefore be sceptical when generalizations based on such results are applied to the whole society or culture.

Lastly, the problem arises as to what extent a questionnaire can be translated into other languages without change in meaning, be it ever so slight.

7.3.3.2 Intelligence tests.

Directly translated forms of an intelligence test have often been administered in different cultures to compare the respective levels of intelligence. Well-known tests used in this manner are those of Wechsler (WAISC and WAIS), as well as the Stanford-Binet test and its many modifications.

Using the Stanford-Binet, Clark (1941), for example, tested Negro and white boys in the United States. After matching them according to IQ, he compared their performance on individual items and found that the Negroes had done better on disarranged sentences, sentence memory and vocabulary; but they were inferior in arithmetic reasoning, repeating digits backwards, and detecting absurdities in pictures.

Of course, the simple application of an intelligence test in another culture, without concomitant re-standardization is fraught with many dangers. A direct comparison of results is then impossible, as external and motivational factors play too great a role in the determination of the test scores. It is for this reason that most of the well-known intelligence tests have been re-standardized for the various societies and cultures individually, or extra norms supplied for certain cultural sub-groups.

But the/ ....

But the standardisation of such tests in different language groups and cultures makes cross-cultural research all the more difficult because norms can then only be compared unreservedly within the standardised group; outside it, great caution must be applied.

In order to get around these difficulties, extra "culture-free" tests have been developed.

7.3.3.3 "Culture-free" tests

The endeavours to find test items which would be applicable in many different cultures, and, ideally, in all cultures known, have resulted in the development of "culture-free" tests, defined by English and English (1958) as,

> "A test of general ability from which have been eliminated, as far as possible, all items depending upon experiences that are more commonly found in one culture than another."
>
> (English and English, 1958, p.547)

Validation is usually effected in respect to local criteria of as many different cultures as possible.

One of the first tests claiming to be culture-free was developed by Dodd (1926). Here, pictorial tasks only, were presented to the subjects. Even the instructions were given by means of diagrams, and not verbally. This test showed high correlations with the Stanford-Binet and other "Western" intelligence tests.

Similar types of "culture-free" tests have been developed since, e.g., Goodenough's Draw-a-Man Test (1926), the Cattell Culture-Free Test of Intelligence (1940) and the Raven Progressive Matrices (1941).

No matter/ ....

No matter how good these tests may be, the question will still have to be answered, in how far they are really free of individual cultural influences. Anastasi (1954) was of the opinion that no test could ever be completely "culture-free", as persons could not react in a cultural vaccuum. Even the attitude towards testing would always be dependent on cultural factors, e.g., intrinsic interest of the test content, rapport with the experimentor, the urge to perform well, to beat others, as well as problem-solving habits in the past, which could either be of a more individual nature, or depend on mutual co-operation.

Some of these distracting factors do not influence projective tests, like Goodenough's Draw-a-Man-Test, and it is this factor which may partly be responsible for the increasing popularity of projective tests in cross-cultural research.

7.3.3.4 Projective techniques

Originally intended for clinical purposes, projective techniques have become very popular in cross-cultural research. In fact, Hsu (1951) estimated that up to that date, over 150 studies in more than 75 societies had been carried out. Most of these inquiries aimed at describing the personality characteristics prevalent in a particular cultural group. This type of test has also found favour with many anthropologists.

The evaluation of such projective techniques can be of a quantitative or a qualitative kind. In recent years the trend has been in favour of the latter. An analysis of the content in order to understand the expressive imagery of each response

has become/...

has become the major preoccupation of many anthropologists. The use of projective techniques has largely superseded the field method in the overall assessment of a culture.

The projective method fulfills the requirements stated by Hertz (1942),

> "The atomistic conception of personality had met with a challenge. Personality as a bundle of characteristics, each subject to identification, segregation and measurement and together forming a whole which was merely the sum of its parts, encountered resistance... Conduct in specific situations now dominates the attention of these students of personality. They evaluate the individual in terms of himself, knowing that mental, emotional, and experimental equipment and background will lead him to react in his unique way. His reactions will yield an insight into his mental processes, fantasy life, desires, emotionality, talents, and the like and thus permit us, by their revelations and projections, to reconstruct his personality.
>
> (Hertz, 1942,pp. 529-530)

And Kluckhohn,(1949), for these reasons, praised projective techniques as follows,

> "Projective techniques, however, can now be regarded as almost indispensable to fineness of interpretation at the psychological level... Often only projective techniques will bring out what the individual does not know and what he does not want to tell about."
>
> (Kluckhohn, 1949, pp. 81-82)

Of the multitude of projective tests only a few need to be mentioned here: Apart from the widely-known and used Rorschach and TAT- methods there is the Sentence Completion Test, the many different studies of children's play, as well as a multitude of drawing tests.

According to/...

According to Lindzey (1961), projective tests can furnish information relevant to cross-cultural research in the following fields:

a) in the attempt to find the "national character" of a particular culture;

b) in the process of acculturation;

c) in the development of personality occurring within non-literate cultures;

d) in procedural studies, i.e. where different procedures and methods are being investigated instead of attempting primarily to obtain substantive findings.

Considerable criticism can be levelled against the use of projective tests in cross-cultural research:

Apart from general reservations, (e.g., difficulty of finding a really adequate scoring system, or testing the reliability and validity satisfactorily), Lindzey (1961) as well as Kaplan (1961) mentioned the following:

Many cross-cultural investigations by means of projective methods suffered from having been based on too small a sample. This drawback was virtually inherent in the method, as projective techniques mostly require individual administration.

Language difficulties could also prove disrupting, especially when use had to be made of interpreters. Kaplan (1961) wrote,

"I have/...

> "I have suggested that most if not all modal personality studies utilizing projective techniques have most probably been arriving at incorrect descriptions of the people they are concerned with. However, it might be suggested equally well that they have also been correct in some part of their descriptions. While the shotgun approach in which some of the wildly fired shots hits their mark, is not a method to be advocated, it will yield a slow accretion of sound facts if the unsound ones are gradually culled out in the course of repeated studies."
>
> (Kaplan, 1961, p. 240)

The interpretation of results poses further problems. In some studies, protocols have been subjected to "blind" evaluation so as to increase objectivity. But then it is very likely that interpretations are made according to "Western" concepts of the evaluator. Then certain factors which may possibly be playing an important role in a particular culture are not being accounted for. This argument can be invalidated when the interpretation of data is carried out while other information on that culture is at hand, (e.g., through interviews). But if the projective tests cannot be interpreted independently, one must ask if such interpretations can still retain some measure of objectivity, as knowledge of such extra facts is certain to influence such assessments.

The problem boils down to the question whether a certain projective test can still be of value if its interpretation is dependent on the knowledge of a culture which, in turn, this test tries to provide.

It seems/...

It seems to be clear from the preceding criticism that it is a dangerous practice in cross-cultural research to make use of projective tests only and nothing else besides. The danger will be all the more real when research is done on relatively unknown cultures, and, furthermore, when an attempt is being made to give an overall interpretation of a society or culture instead of limiting the research to the finding of singular, well defined traits.

After all, the more conscious and rational processes are of equally great importance in cross-cultural research, and they can be assessed by other means.

Thus projective techniques can be of great value when used in conjunction with other tests, as the two areas thus covered - conscious and unconscious - are complementary to one another.

The applications of a projective technique used in the present investigation, namely McClelland's measure for n Achievement, will be discussed in the following sub-section as regards its applications in a cross-cultural context.

7.3.3.4.1 The application of McClelland's n Achievement measure in a cross-cultural context

The method of measuring ' n Achievement as well as its relationship to other personality variables has been conceived, developed and tested first and foremost in the United States and on American subjects.

Subsequently, studies were undertaken in other countries to validate the n Achievement measure by means of cross-cultural research. Likewise, studies inside the United States, contrasting American Indians with Whites, have been carried out.

One of the earliest cross-cultural studies on n Achievement was the one undertaken by Lowell (1950). Twenty-one male Navaho pupils in New Mexico were tested for n Achievement in the normal manner, except that verbal cues were given instead of pictures, in order not to introduce possible cues from the Western culture by means of the TAT-type cards. Half the stories were told before, and half of them after a Gottschaldt Figures test had been administered, for the purpose of creating achievement-oriented conditions. There was a significant increase ($p<.01$) in the level of n Achievement which led Lowell to conclude that the scoring system, based on stories written by white students, was able to pick up differences in induced achievement when applied to a different culture.

Studies dealing with the possibility of measuring n Achievement with the original TAT-type cards in different countries were carried out, among others, by Angelini (1955) in Brazil, and Urbano (1961) and Doronzi Zaccone (1962), both in Italy. All of them obtained positive results and presented evidence

that/ ....

presented evidence that the n Achievement measure possessed a degree of validity in their respective cultures.

Angelini (1955) tested Portuguese-speaking students in Brazil and found that, contrary to findings in the U.S., his female subjects could be aroused as regards achievement fantasy by references to intelligence and leadership capacity, (see also p.79).

The cross-cultural applicability of the n Achievement measure was further confirmed by a study of Persian and American male students, carried out by Tedeschi and Kian (1962). Each cultural group consisted of 30 subjects. One half of the Persian and American samples were given the n Achievement measure under relaxed conditions, the other half under aroused conditions. It was found that the two cultural groups were not significantly different as regards n Achievement scores under either condition of arousal. However, Persians under aroused conditions scored significantly higher than Persians under relaxed conditions; within the American group there was no difference. The authors concluded that this experiment was evidence for the fact that the n Achievement measure was culture-free.

Several cross-cultural studies on the relationship between n Achievement and child-rearing have been published, such as those of McClelland and Friedman (1952), McClelland, Rindlisbacher and De Charms (1955), Child, Storm and Veroff (1958), Rosen (1959), (1961), (1962) as well as Bradburn (1963). All of these articles have been discussed at length in the chapter dealing with the origins of achievement motivation (see pp. 40-52), and will therefore not be repeated here.

Another/ ....

Another cross-cultural study which utilised the n Achievement measure was undertaken by Strodtbeck (1958), who contrasted third-generation Jews and Italians in the United States as regards upward mobility. 24 boys of each group, carefully matched for school achievement and socio-economic status, were given the n Achievement measure. The difference in the total scores between the two groups was in the expected direction (Jews obtaining higher scores), but it did not reach statistical significance.

Apart from finding that Jews in the United States expected their children to be independent earlier than American Italians (see p. 52), Rosen (1959) also established that the n Achievement score level was significantly higher in Greeks, Jews and white Protestants as opposed to French-Canadians, Negroes and Southern Italians, all tested in America. Rosen maintained that differences between these groups in motivation, values and aspirations existed before their arrival in the Northeast, (where he tested a total sample of 954 subjects), and that these differences had their origins in dissimilar socialisation practices, traditions and life situations. These differences still persisted at the time of his investigation.

In another study, significant differences in n Achievement level were found between carefully matched upper middle class samples of 87 male German and 74 male U.S. students by McClelland, Sturr, Knapp and Wendt (1958). The American sample obtained significantly higher scores. They also participated more in group activities and stated more frequently that they had been guided by the opinions of others. The German males tended to be more individualistic and to put greater stress on independence and rational striving. These latter findings are not really compatible with the pattern of n Achievement scores.

The most/...

The most extensive body of experimental data on the n Achievement measure in a cross-cultural context has been accumulated by McClelland (1961) in his book, "The Achieving Society",(which has already been discussed on pp. 86-87). Many tests of McClelland's main hypothesis, - that a high level of n Achievement in a society would precede its economic growth - were carried out by means of cross-cultural applications of the n Achievement measure.

Testing Weber's hypothesis of the close link between Protestantism and entrepreneurship (and thus higher n Achievement), McClelland found that Protestant boys in Germany had a higher n Achievement score than Catholic boys, where all of them were aspiring towards a university education; other factors being equal.

When a sample of primitive tribes numbering 45 in all was divided into those with some full-time entrepreneurs as opposed to tribes estimated to have none, it was confirmed that the former had significantly more achievement imagery in their folk tales.

Turning to present-day nations and analysing their children's readers for n Achievement, McClelland found that there was a strong tendency for countries which performed better than expected economically to have been high in n Achievement at the outset of the period in which the economic growth was measured. He came to the conclusion that high n Achievement levels were associated with more rapid subsequent economic development.

Turning/...

Turning to actual entrepreneurs in the present, business managers in the U.S.A, Northern and Southern Italy, Turkey, and Poland, were contrasted with professional people on the n Achievement measure. It was found that managers scored significantly higher in all countries except for Turkey. Age was not a significant variable. The average n Achievement level was highest in the U.S.A., followed by Poland, then Italy, and lastly Turkey.

The hypothesis that high n Achievement scores and preference for sombre colours were significantly related had already been confirmed by Knapp (1958) (see p. 72). This finding was substantiated in a cross-cultural study involving samples from India, Japan, Brazil, and Germany.

Comparing countries of roughly equal wealth, McClelland found that those with higher n Achievement scores (as calculated from their children's readers) had a significantly greater interest in air travel. Countries with high n Achievement scores also tended to have significantly more people who had emigrated from them, demonstrating greater mobility.

When investigating preferences for games, McClelland found that in a total sample of 37 cultures, those with high n Achievement scores significantly more often played competitive games.

The results obtained by means of the cross-cultural application of the n Achievement measure were summarized as follows by McClelland:

Persons with high n Achievement scores in various cultures tended to:

a) show a greater frequency of certain types of expressive movement;

b) perform better under achievement incentives;

c) prefer the use of blue and green (more sombre) colours;

d) possess a greater geographical and social mobility;

e) have fewer outside interests in school;

f) put greater emphasis on competitive games;

g) have images of time differing from those of low achievers; (time visualized as more swift-flowing and directional).

If asked directly, however, they did not respond with the attitudes and beliefs their behaviour seemed to imply.

CHAPTER VIII

Cross-cultural comparisons between English- and Afrikaans-speaking Whites in South Africa

Cross-cultural comparisons between English- and Afrikaans-speaking Whites in South Africa

8.1 Introduction

Unlike the much-quoted "melting pot" of the United States, South Africa's many different races, cultures, sub-cultures and language groups not only tend to keep apart for traditional reasons, but the existing divisions are upheld by government sanctions as well. This situation, virtually unique in the whole world, presents an immense and fascinating scope for cross-cultural research in the psychological sphere.

Of most immediate interest to many social scientists is the existence, side by side, of a fast-changing African tribal culture and a highly technological and rationalized "Western" civilization. This condition has led to the study of many cross-cultural psychological phenomena between white and non-white groups.

A discussion of this vast field does, however, fall outside the scope of this thesis, which limits itself to two white groups; - the English- and Afrikaans-speaking South Africans.

8.2. Comparisons between English- and Afrikaans-speaking Whites

In view of the overriding interest in differences and/or similarities between Whites and Non-Whites, the cross-cultural psychological comparisons between English- and Afrikaans-speaking persons in South Africa have managed to attract relatively little attention.

This may be due to the following reasons:

a) There seems to be a noticeable lack of interest on the part of Afrikaner psychologists to undertake cross-cultural research in the psychological field, due, perhaps, to their belief that the Afrikaners form a separate "volk" or nation, which must preserve its identity at all costs. Scientific comparisons with other white groups (e.g., the English-speaking South Africans), or with the non-white population may therefore be seen by them as serving no real purpose, or perhaps even being detrimental to the implicit belief of otherness and the conviction of being "chosen".

This lack of interest in cross-cultural psychological studies becomes all the more noticeable when one views the great popularity which the study of other branches of psychology (e.g., educational or abnormal), seems to enjoy at Afrikaans universities. The interest in this type of psychology seems to be markedly greater with the Afrikaners than with their English-speaking Gentile counterparts.

b) Since/...

b) Since, for the reasons given under (a), cross-cultural research between the two white language groups in South Africa is almost exclusively confined to English-speaking social scientists, the relative lack of such investigations may also be due to the fact that few of the latter possess a thorough knowledge of Afrikaans and/or good contacts with Afrikaans schools and universities to make research in this area intrinsically worth while to them.

This state of affairs is to be deplored, seeing that these are two white groups,

> "...which share a common ethnic origin in western Europe, which are alike in their assimilation of all the broad features of Western culture and its institutions, which share certain common characteristics as South Africans, particularly in their interests and particular attitudes, but which are nevertheless very diverse culturally. The diversity manifests itself not only linguistically but also in respect of family relations, church membership, system of values, aspirations, social habits, group loyalties and occupational trends. On the other hand, it is not a difference that is linked with economic class and it is possible to compare members of the Afrikaans and English sub-cultures at every socio-economic level."
>
> (Biesheuvel, 1959, p. 3)

8.2.1 Character traits attributed to English- and Afrikaans-speaking Whites

Before discussing the cross-cultural psychological studies between English- and Afrikaans-speaking Whites, it may be of value to investigate some psychological traits attributed to the above groups in various publications.

The most conspicuous fact is the great amount of self-analyses by Afrikaans-speaking authors, as opposed to the virtual lack of anything in this line by their English-speaking counterparts. This finding can be seen as a direct contrast to the lack of cross-cultural psychological studies by Afrikaans-speaking social scientists, mentioned earlier.

Any well-founded opinions about the Afrikaans-speaking Whites in South Africa necessitate a thorough study of their history, language and religion. It is, however, outside the scope of this thesis to elaborate on this at length. Suffice it to state that several good publications are available for this purpose, e.g. "The Afrikaner's Interpretation of South African History", by F.A. van Jaarsveld (1964) as well as Sheila Patterson's "Last Trek" (1957).

It is generally accepted that the homogeneous and patriarchial society of the 19th century was decisive in the forming of a distinct Afrikaans group character. This isolated group, threatened from all sides by African and British colonialism, tended towards a very strongethnocentrism to be able to survive. This has remained so to this day. The decisive role of Calvinism is acknowledged in the many self-reports of Afrikaners, like

that of/ ....

that of C.C. Nepgen, entitled, "Die Sosiale Gewete van die Afrikaanssprekendes". Here, the following generalizations were made:

"(a) Die godsdiens het sonder twyfel die hoofrol gespeel in die vorming van die Afrikaner; en gevolglik word sedelike kwessies gewoonlik deur hom uit 'n godsdienstige oogpunt benader.

(b) Die Afrikaner is behoudend teenoor gevestigde gebruike en bestaande verhoudinge. Die volksetes is betreklik staties; maar daar vind tog geleidelik 'n gesonde aanpassing by moderne toestande plaas, waarby die tradisionele, wel gewysig, maar in kern tog gehandhaaf word.

(c) Deur 'n sterke gevoel van eiewaarde besiel, laat die Afrikaner hom geld teenoor inboorlinge en vroemdes; en soek hy om te handhaaf wat sy eie is. Teenoor vroemdes wil hy grootmoedig en vriendelik wees. Onder die minderbevoorregtes is daar egter 'n toenemende minderwaardigheidsgevoel op te merk.

(d) As individualis geld vir die Afrikaner die handhawing van sy regte meer as die nakoming van maatskaplike pligte. Hy is geneig om sosiale inhibisies tot 'n minimum te reduseer. Hy het 'n habitus tot opportunisme ontwikkel.

(e) Die natuurlike realisme van die lewe op die platteland waar die Afrikaner gevorm is, het aan hom besorg 'n agrariese skaal van sedelike evaluasie.

(f) Die Afrikaner is gebore in 'n proses van reaksie teen ongunstige omstandighede en invloede. Daar is, gevolglik, in sy samestel 'n neiging tot kontrariteit en suspisie aanwesig.

(g) Die sosiale gewete van die Afrikaner vertoon 'n vernuftige plooibaarheid, wat gepasselik deur die woord 'slimmigheid' aangedui word."

(Nepgen, 1933, p. 162)

A great/...

A great impetus for a scientific study of the character traits of the Afrikaners was given by the emergence of the "Poor White" problem in the first three decades of this century. The Afrikaners, being mainly of rural origin and without capital reserves, were most severely affected by the Boer Wars and by the economic depression in the late twenties. It was estimated that in 1931, more than one fifth of the total white population in South Africa could be classed as "very poor", and that the overwhelming majority of these were Afrikaners.

In a socio-psychological study, undertaken as part of the report of the "Carnegie Commission", Wilcocks (1932) stated that the poverty of the "Poor Whites" was, apart from external factors, due to their unwillingness to work. This he attributed to,

a) their bad physical condition, due to malnutrition;

b) their prejudice against "Kaffir work";

c) their inability to compete with cheap non-white labour; and

d) their feelings of inferiority.

Wilcocks concluded,

> "Possibly some as yet unknown hereditary flaw is one of the underlying causes of this lack of ambition. It is certain that a low standard of living is partly responsible. Many poor whites have become so habituated to the poverty of their existence that it does not act as a stimulus towards attempts at improvement."
>
> (Wilcocks, 1932, p. 66)

Since the days of the depression, thirty years have passed and a great economic upsurge has eliminated this problem among the Whites of South Africa. But even after World War II, the sociologist Pauw (1946), commenting on urban labour, stated that one of the deficiencies of the Afrikaners was the lack of an adequate work tradition. On the whole, they were not yet

conscious/...

conscious of the great value of work in the life of a nation. The Afrikaner had even come to regard certain types of manual labour as being beneath his dignity.

He furthermore stated that the strong position of the English-speaking South Africans in commercial life and education had led to a resentment against the type of work done by them, or, on the other hand, had caused many Afrikaners to become anglicized.

In a more recent publication, the economist Sadie (1958) sketched the position of the Afrikaner in the South African economy. He stated that due to recent urbanization there were few Afrikaans entrepreneurs who did business on a large scale. Their financial power could not compete with that of the English-speaking South African and British business establishments.

The rural-urban distribution was, however, changing very fast. Whereas in 1911 80% of all Afrikaners still lived in rural areas, this had dropped to 48% in 1936 and 31% in 1951. One could therefore expect an increasing interest of the Afrikaners to be devoted to business, although in the big business of mining, the Afrikaners only controlled 1% of the market.

Whereas 57% of all Whites in South Africa were Afrikaans-speaking, they only produced 26% of the total R 2500 million yielded by the private sector in the country's economy in 1958. And even of this total, three quarters of the Afrikaner's products hailed from farming activities.

Comparing/...

Comparing average annual income, it had been found that the white Afrikaans-speaking family earned R 520 p.a. on the average, as opposed to the R 870 of the other Whites, (mostly English-speaking.)

The process of Afrikaner acculturation from a predominantly rural to an urban way of life has progressed rapidly. Van Zyl (1964), in a sociological analysis of different Cape suburbs, found that a surprisingly rigid system of status differentiation had already developed among them. This phenomenon was very similar to that of other Western Societies. Consciousness of class was also far stronger than a generation ago.

Slabbert (1964), investigating occupational choice among Afrikaans-speaking students at the University of Stellenbosch, found no significant correlation between place of origin, (farm, village or town), and choice of future occupation. Almost half the sample, numbering 300 males, thought of their future occupations as being of a higher status than that of their fathers.

Another interesting fact emerging from this study was that the following reasons were given as first choice most often when the subjects were asked what had caused them to choose their future profession: -

18.0% felt "called by God",
14.7% wanted to be of service to others and to the Afrikaner nation,
12.4% wished to make use of their own potentials,
11.3% looked for security,
9.0% wanted to work in the open air.

Only 1% (ranked 14th), said that they had chosen their future occupations for the high income it was likely to yield.

Of course/...

Of course, this pattern of responses may have been strongly influenced by wanting to appear in a favourable light, but the sequence is interesting nevertheless.

The only sociological study of community patterns in South Africa which differentiated between English- and Afrikaans-speaking Whites is that by Watts (1964) on King William's Town. In this predominantly English-speaking town, only 14.6% of the Whites speak Afrikaans. It can therefore not be called a 'typical' South African town.

Watts (1964) found that the English-speaking inhabitants tended to:

have better housing, ($p < .06$),
and hold better-paid occupations, ($p < .03$)

Afrikaners also tended to have a lower overall educational level and belonged to fewer oranizations and clubs than their English-speaking counterparts.

The English-speaking South Africans

Turning to the English-speaking South Africans, one is struck by the lack of scientific information on their "modal personality", and no literature on this topic can be quoted here.

There are, of course, innumerable generalizations about both white language groups, but few of them have been rigorously tested for the amount of verifiable truth they contain. (e.g., Burger, 1960, "The Gulf Between")

8.2.2 Psychological test comparisons between English- and Afrikaans-speaking Whites

8.2.2.1 Differences in intelligence

Biesheuvel and Liddicoat (1959) contrasted Afrikaans-speaking and English-speaking Whites as regards their performance on the "New South African Group Test" (after Wechsler). In an earlier investigation, Biesheuvel (1952) had already established that the English-speaking sample exceeded the Afrikaans-speaking group by 9.9 IQ points on the non-verbal part of the New South African Group Test.

In the investigation of 1959, a comparison was made between 1386 English- and 1494 Afrikaans-speaking subjects. The whole sample was stratified into five socio-economic classes. In all classes except the lowest one, differences significant at the 1% level of confidence were found in favour of the English-speaking group. This significant difference also persisted when the level of education was controlled.

No significant differences were, however, found between rural and urban subjects of the same language group.

The persistently lower scores obtained by the Afrikaans-speaking subjects caused the authors to conclude that the Afrikaans culture was more simple and had a lower stimulus value than that of the English-speaking group in South Africa. This could be due to the predominantly rural characteristics of the Afrikaans culture which had not yet disappeared after large-scale urbanization had taken place.

Langenhoven (1959) contested this point of view and alleged that the differences obtained might have been caused by a cultural bias in the test situation. Afrikaans-speaking subjects could have had different testing experiences, divergent interests towards tests and therefore discrepant attitudes towards them, as opposed to the English-speaking section.

In reply to this, Biesheuvel and Liddicoat (1960) doubted very much whether there would be any differences as regards test situations and attitudes, as the South African school system was identical in this respect for both groups. Due to the fact that both groups had been matched for the amount of schooling received, this factor of test experience was unlikely to be of influence.

Furthermore, in a "Manpower Study" conducted by the National Institute for Personnel Research, the English-speaking group ($n = 1662$) was significantly better in an arithmetic reasoning test than the group of 3338 Afrikaans-speaking subjects tested; ($p < .001$).

It therefore seems very likely that the Afrikaans-speaking subjects lag behind in intelligence test performance because of the relatively greater cultural isolation stemming from their predominantly rural orientation.

2.2.2 Differences in attitudes towards out-groups

When MacCrone (1937) conducted his research on race attitudes in South Africa, the sample tested included English-speaking Gentile and Jewish students, as well as Afrikaners. All of them were undergraduates in their first year at various universities.

When asked about their attitudes towards Africans, by means of a Thurstone scale, the three groups differed widely in the responses they gave. Thirty statements about attitudes towards Africans had to be arranged on a continuum where class 1 contained statements very strongly favourable, and class 9 very strongly unfavourable towards Africans. Although MacCrone did not specify whether the differences between these three groups were statistically significant, he stated that obvious differences did exist, as could be seen by inspection of each group's average score:

English-speaking Jews; (n = 120)	= 5.2
English-speaking Gentiles;(n = 236)	= 5.4
Afrikaans-speaking; (n = 98)	= 6.6

where scores ranged from 2-9, with the mean at 5.5.

Apart from being more "unfavourable" in their attitudes towards Africans, the Afrikaans-speaking group also had a smaller spread of individual scores, indicating greater homogeneity in outlook and less signs of divergent opinions.

Jewish scores were, on the other hand, more heterogeneous than those of the English-speaking Gentiles, although the average scores were very similar; (see above).

MacCrone/...

MacCrone (1937) also administered a Borgardus scale, which attempts to measure 'social distance' between groups. After obtaining the expected result that the tolerance for the in-group was in every case higher than that for any out-group, he found that the Jewish group showed most tolerance and least intolerance, followed by the English-speaking Gentiles, to a lesser degree, whereas the Afrikaans groups were much more intolerant, as well as less tolerant towards various out-groups, especially Africans.

Group membership tended to be the single most important factor in determining a person's attitudes towards out-groups; sex and environment (rural or urban) playing a minor part.

Further investigations by Pettigrew (1959), (1960) and Van den Berghe (1962) along the same lines verified the initial findings by MacCrone. All of them found that Afrikaners were the most prejudiced of the Whites, and also showed the greatest social distance to other groups, no matter what their colour was. Jews, on the other hand, showed the least partiality and social distance.

When Gillespie and Allport (1955) conducted a world-wide study on the theme of how youth in various countries viewed their future, they also investigated English- and Afrikaans-speaking South African students. They were asked to write their own future autobiography and to answer a questionnaire on various topics. Unfortunately, the numbers tested were small, (29 English - and 68 Afrikaans-speaking white students in South Africa), and secondly, no statistical analysis beyond percentages was undertaken.

The authors/...

The authors gained the impression that the English-speaking white students in South Africa were similar to those in New Zealand and the United States. They tended to be less favourably inclined towards racial equality, but, again, more so than the Afrikaans students, who were overwhelmingly negative towards equality of white and non-white people.

Afrikaners also emphasized much more than other groups that a religious belief was necessary for a mature philosophy of life. Further aspects of life strongly stressed by Afrikaans-speaking students were fear of communism as well as strong nationalistic tendencies.

A more recent study was carried out by Achron (1963), who compared the English- and Afrikaans-speaking Whites on the F - scale (Adorno et. al., 1950) in an attempt to measure the degree of authoritarianism in each group.

Using 147 Afrikaans- and 211 English-speaking school children and students as sample, it was found that the Afrikaners had significantly higher F - scale scores. This was taken to indicate that the extreme Afrikaner Nationalism tended to cause personality patterns of an authoritarian nature.

Afrikaans male students also scored significantly more points on the F - scale total than the Afrikaans females. This was seen as pointing to a greater disposition of the former to identify with the dominant male authoritarian figure of their traditionally patriarchal family structure.

Furthermore, the Afrikaans-speaking group showed greater trends of conventionalism, submission to authority and projectivity

(e.g. regarding/...

(e.g., regarding war as being inevitable). Afrikaners also tended to make significantly more extreme judgments, which was taken to hint at the greater rigidity in their cognitive functioning. This, in turn, could have been caused by a greater simplicity of their culture, as opposed to that of the English-speaking South Africans.

Afrikaans-speaking subjects also showed a lower degree of variance in their answer, but this difference did not reach statistical significance. This trend could, according to Achron, be due to the increasing insistence on uniformity in the Afrikaans culture.

It was finally concluded that the test findings of high authoritarianism among the Afrikaans sample could either be indicative of personality traits which represented maladaptive patterns, or they could merely be a manner of adjusting to a culture which was extremely authoritarian by nature.

2.2.3 Differences in the degree of self-rationalization

Utilizing future autobiographies in the manner first published by Gillespie and Allport (1955), a quantitative scoring system was developed by Danziger (1963) to measure a person's degree of self-rationalization, defined ideal-typically as,

> "...the subordination of all other goals to the overriding goal of long-term self-interest as expressed in success in a career. This gives rise to a personality pattern...based on the systematic control of impulse in the interests of a deliberately formulated life-plan...until ideally, all ... actions are co-ordinated in the service of a single life goal, namely, personal success."
>
> (Danziger, 1963, p. 18)

The scoring measure, involving categories like a quantitative assessment of ego-reality statements as well as fantasy, degree of economic interest, and number of objective time references as well as stages of life path as expressed in the future autobiography, was found to be both valid and reliable as a projective test.

The resultant "Self Rationalization Index" was used to test the assumption that the social character of the Afrikaner had changed significantly in the last twelve years; (Danziger, 1964, unpublished manuscript).

Due to the tremendously accelerated urbanization and adaptation to modern industrialized conditions, (see p.111), it was hypothesized that Afrikaners in 1962 would show significantly more self-rationalization than a comparable sample tested in 1950.

A comparison/...

A comparison between 67 future autobiographies written by undergraduate Afrikaans-speaking students in 1950 and a similar group of 86 stories in 1962, (both from the University of Stellenbosch), showed that for males the mean Index of Self-Rationalization had risen from .48 to .58 ($p < .01$). The same trend was evident for the females.

Whereas in 1950 the difference in mean self-rationalization scores between Afrikaans- and English-speaking white students had been highly significant, this disparity had decreased to the extent that it became statistically insignificant by 1962, although Afrikaners still tended to score slighly less on the average.

Danziger concluded that in spite of the small sample tested, the general pattern was clearly pointing in the direction one could anticipate when viewing the general sociological and historical trend, which bore out that the Afrikaner was increasingly taking part in the out-and-out rationalized world of commerce and administration which had formerly been the domain of his English-speaking white countrymen.

C H A P T E R IX

Three aspects of the achievement syndrome and their possible experimental validation

Three aspects of the achievement syndrome and their possible experimental validation

9.1 Introduction

In the preceding chapters an attempt was made to clarify pertinent issues as regards achievement motivation.

The first chapter dealt mainly with McClelland's concepts of motivation, and achievement motivation in particular. In chapter II the various requirements were stated which the n Achievement measure should fulfil. The conclusion was arrived at that special attention should be given to the validation of this test, as it was the crucial factor which determined whether it would remain purely a theoretical contribution or whether it could become of practical use in everyday life.

Further attention was given to the relationships (if any) between the n Achievement measure and other tests of achievement, different personality variables, as well as the test's application in the study of society and in a cross-cultural context.

Most of these investigations showed inconsistent or even negative results. Should one thus want to characterise the n Achievement measure after these attempts at empirical validation, it would mainly have to consist of statements of what the n Achievement measure was <u>not</u>.

It is highly likely that other unidentified factors exerted such a great influence on these attempts at validation that the results obtained were mostly insignificant.

9.2/ ....

9.2 The concept of the achievement syndrome

A promising approach towards the finding of a possible solution to the problems mentioned previously seems to be that of Rosen (1956) who developed the concept of the "achievement syndrome" while attempting to explain the differential rates of upward mobility among various strata in the United States.

Several relevant explanations for these differential rates had been advanced before but according to Rosen all of them lacked exhaustiveness. This, he wrote, could be due to the fact that no explanation,

> "... takes into account the possibility that there may be psychological and cultural factors which affect social mobility by influencing the individual's willingness to develop and exploit his talent, intelligence, and opportunities."

He therefore hypothesised,

> "... that class differential rates of vertical mobility may be explicated also in terms of a psychocultural dimension of stratification, that is, as a function of differences in the motives and values of social classes. More specifically that social classes in American society are characterized by a dissimilar concern with achievement ..."
>
> (Rosen, 1956, pp. 203-204)

By means of an experimental investigation Rosen found that achievement fantasy and achievement value orientations,

> "... represent genuinely different components of the achievement syndrome, not only in their correlates, but also in their origins."
>
> (Rosen, 1956, p.210)

The achievement/ .

The achievement syndrome, as seen by Mccn, thus consists of two components, namely,

> "... a psychological factor involving a personality characteristic called achievement motivation (or, in Murray's terminology, need or achievement) which provides an internal impetus to excel.
>
> The second is a cultural factor consisting of certain value orientations which define and implement achievement motivated behaviour. Both of these factors are related to achievement."
>
> (Mccn, 1953, p.206)

Mccn's studies showed that strong achievement motivation was not a sufficient cause for upward social mobility. Cultural factors, such as achievement value orientations, were necessary as well. The latter provided definite goals and focused the attention of the individual on achievement and made it possible for him to put his achievement motive into action. Achievement motivation could, of course, also be said to be a motive original, but here the socially-approved achievement value orientation was lacking.

Although these components of the achievement syndrome showed some interrelationships, and were both necessary for socially-approved achievement to take place, they did not correlate to the same degree with some variables which were also important in this context:-

Whereas achievement motivation was found to be significantly related to school grades, achievement value orientations were not. The opposite was true for educational aspirations:- here achievement value orientations were correlated positively, but not achievement motivation.

The two components of the achievement syndrome could possibly originate at different times of a child's life:-

"Value orientations, because they tend to be on a conceptual level, are probably acquired in that stage of the child's cultural training when verbal communication of a fairly complex nature is possible.

"Achievement motivation, on the other hand, probably has its origins in certain kinds of parent-child interaction that occur early in the child's life and are likely to be emotional and unverbalized.

"Analytically, then, the learning of achievement-oriented values can be independent of the acquisition of the achievement motive, though empirically they often occur together."

(Mecon, 1956, pp. 210-211)

0.3 Definition of relevant terms

In an attempt to clarify the issues mentioned above a sharp distinction must be made between the measurement of motives (or needs) on the one hand and the measurement of value orientations on the other.

In conjunction with the discussions on various theories of motivation as set out in Chapter I (pp. 8 - 18) the term "motive" or "need" can be defined as,

> "... a disposition to strive for a particular kind of goal-state or-aim, e.g. achievement, affiliation, power. The aim of a particular motive is a particular kind of effect to be brought about through some kind of action. The aim of a motive defines the kind of satisfaction that is sought, e.g., pride in accomplishment, a positive affective relationship with another person, a sense of being in control of the means of influencing the behaviour of other persons. The attainment of a goal-state is accompanied by feelings of satisfaction; disruption of goal-directed activity, or non-attainment of a desired goal-state, is accompanied by feelings of dissatisfaction. The aim of a motive is not identified with performance of particular kinds of acts such as

approval/ ....

approval seeking or attempts at influence, or with particular qualities of instrumental action like persistence or rigidity. A particular kind or quality of instrumental action may, however, come to be associated with attainment if the aim of a particular motive and hence provide a fairly reliable clue to the presence of that motive."

(Atkinson, 1958b, p.597)

The term "value orientation" has been defined as

"... meaningful and affectively charged modes of organising behavior, as principles guiding human conduct. They establish the criteria which influence the individual's preferences and goals; they act as spectacles through which the individual sees himself and his environment."

(Rosen, 1956, p.205)

It is of particular importance to notice that motives refer largely to the dynamic aspects of human behaviour of whose direction and magnitude one is rarely, if ever, consciously aware. Attempts at measuring motives can be made by means of fantasy responses to projective techniques.

Value orientations, on the other hand, refer mainly to the cognitive aspects of a person's behaviour of which one is largely aware. They can therefore be communicated more freely and measurement is possible by making use of questionnaires.

Another term which needs clarification is that of "achievement syndrome". It was first introduced by Rosen (1956), who published a study on the possible interaction between "achievement motives" and "achievement values" under the title, "The achievement syndrome: A psychocultural dimension of social stratification." However, he omitted to define the concept of the "achievement syndrome" altogether and mentioned the name only once more in the

last/ ....

last part of his paper.

The word "syndrome" is used predominantly in the medical sphere where it indicates a complex concurrence of the various symptoms of a disease (Drever, 1952). In the psychological field a "syndrome" has been defined as,

> "... loosely, a cluster of characteristics; a set of behaviours believed to have a common cause or basis."
>
> (English and English, 1958, p. 540)

Hofstaetter (1957) elucidated this theme under the heading of "Tests" as follows,

> "The diagnostic validity is easiest to establish in the case of scholastic tests, as the criterion variable (e.g., success in training) is normally well-defined. Personality tests (projective techniques and questionnaires) are, on the other hand, mostly dependent on validation criteria which are less precise and sometimes also less reliable (e.g., assessment by friends, psychiatric diagnoses, etc.). This fact first of all complicates the construction of such tests and, secondly, makes an assessment of their capabilities extremely difficult.
>
> Frequently one has to make do with a characterisation of typical forms of test behaviour (symptoms or groups of these, i.e., syndromes) whereby their diagnostic relevance is left undecided for the time being. The interpretation of a behavioural syndrome may, for example, follow from the finding that it appears more frequently in certain groups of subjects (e.g. classed according to age, sex, occupation or illness) than in others."
>
> (Hofstaetter, 1957, p. 294, translated)

It can be inferred from the above definitions that a syndrome can in essence be no more than a surface classification based on observable behaviour, mostly obtained through testing.

Thus Rosen (1956) seems to be at fault when he considers motives as being a component of the achievement syndrome; this, per

definition/ ....

definition, they cannot be.

A way in which the achievement motive can manifest itself is in the form of achievement fantasy (McClelland et al., 1953). Contrary to Rosen's opinion it is then achievement fantasy and not the achievement motive which is in the present investigation assumed to be constituting one component of the achievement syndrome.

9.4 Inclusion of a third factor.

The concept of the achievement syndrome which is seen by Rosen (1956) as consisting of achievement fantasy and achievement value orientations could be extended further to include actual achievement behaviour in real-life situations. This has been done in the present investigation.

Positive indications of achievement behaviour in someone's life is often taken to be the direct outcome of the influence of achievement motivation and/or achievement value orientations, which this person is thought to possess. But these last-mentioned factors need not necessarily be the only ones giving rise to achievement behaviour; indeed, they could conceivably play a very minor role and other variables could be at work:-

> "Among these (other) variables may be such factors as sibling rivalry, the operation of ego defense mechanisms, or motives other than need achievement, for example, the need for power. Furthermore, social classes may be dissimilar in ways other than their motives or values, and these differences can have significance for achievement. Classes are said to be different in manners, richness in cultural-esthetic experiences, and possibly with respect to intelligence, to a general sense of well-being, power, and past history of successful endeavour".
>
> (Rosen, 1956, p. 210)

9.5 Measures of the three achievement syndrome factors

In order to obtain greater clarity about the three achievement syndrome factors mentioned previously it was attempted to measure them experimentally.

9.5.1 Achievement behaviour

An attempt to measure the presence of actual achievement behaviour in real-life situations can be made in various ways.

When taking a sample of university students and/or high school pupils ~~as sample~~, actual achievement behaviour is best assessed by investigating each subject's performance as evaluated against a standard of excellence. In the university and school situation this performance is most likely to be canalized within the framework of scholastic achievement. Attempts can therefore be made to establish whether each one of the subjects is doing significantly better than expected (thus possibly over-achieving) or significantly worse (possibly under-achieving).

Two distracting factors, however, may influence the accuracy of such judgements:-

Firstly,

> "... good performance in college almost certainly reflects not only the strength of the achievement motive but other motives, values, social pressures, and situational effects as well."
>
> (McClelland, 1958a, p. 30)

And secondly,

> "Judgements by others can also be reliable although they are less likely to be, but they too, suffer from being multidetermined, in this case not only by a variety of factors in the subject but also in the judge, since he may project his own motives into his estimate if it is a complex one." (McClelland, 1958a, p. 41) Research/

Research on the topic of achievement is less frequently attempted with individuals who have left school or university. This seems to be mainly due to the greater amount of difficulty usually experienced in obtaining a sufficiently large sample for testing. Furthermore, it has also been less easy to obtain an objective evaluation of the extent of each subject's achievement behaviour as this can become evident in so many different ways.

Achievement behaviour can, for instance, be expressed

> "... through non-vocational behaviour, for example lay religious activity of an individual whose drive to excel finds release through piety or mastery of sacred literature; or it may find an outlet in non-professional "hobby-type" behaviour. Even when expressed through vocational activity the achievement motive may be canalized into culturally defined deviant occupations (e.g., the criminal), or into low status vocations (e.g., the individual whose achievement drive is expressed and satisfied through his desire to be the <u>best</u> welder among his peers)"
>
> (Rosen, 1956, p.206-7)

In view of these difficulties it seems to be a promising approach if the suggestion of McClelland (1961) is followed: that achievement behaviour can be measured best by looking at entrepreneurial activity; since business involves risk, personal responsibility (possibilities of credit for success) and measurable results.

In the present investigation an assessment of the extent of academic under- or over-achievement in the various subjects tested seems to be the most promising method to determine achievement behaviour.

9.5.2 Achievement fantasy

Achievement fantasy can be measured by administering TAT-type cards and assessing the resultant stories according to the scoring system developed by McClelland et al. (1953). It can be assumed that this measure is a projective one and therefore any achievement fantasy present has not been given consciously.

The significance of achievement fantasy lies in its relation to n Achievement, but this is ambiguous as can be seen from the various hypotheses enumerated below:-

9.5.2.1 Alternative hypotheses on the relation between motive and fantasy

Murray (1938), who originated the TAT and the concept of n Achievement, did indeed believe that there was a direct relationship between achievement motivation and its appearance in fantasy. McClelland (1953), as well as Atkinson (1958), was of the same opinion.

On the other hand, Feshbach (1961), as well as Lazarus (1961), denied the correctness of Murray's assumption.

Feshbach raised the question of "response competition". By this he implied that the amount of actual achievement motivation in two subjects, A and B, could be equally high, but the n Achievement scores for a certain card could differ and be lower for A because this card aroused

in him/ ....

in him strong hostility feelings in addition to achievement fantasy. Due to A's greater aggressive drive he would tend to obtain less achievement fantasy, although in reality it should have been equal to that of B. This disturbing factor, if at all present, can be counteracted to a large extent by only utilizing cards which are well-known for their ability to elicit achievement fantasy and their minimal cue value for arousing other needs.

Another hypothesis mentioned by Feshbach (1961), as well as Lazarus (1961), is connected with a person's defence mechanisms.

They claimed that a motive which had attained great predominance in a person would be liable to arouse anxiety and call forth a defence mechanism which could prevent adequate expression of this motive in real life, and even in fantasy stories.

Feshbach referred, for example, to the sex drive which would tend to be suppressed in many persons the stronger it grew. On the TAT, few references to sex would be evident. However, this argument seems to be of little importance when considering achievement, as the need for achievement is socially desirable and sanctioned, at least in Western society. One would hardly imagine a person with a high need for achievement wanting to suppress it either consciously or unconsciously.

The third/ ....

The third hypothesis mentioned by Feshbach (1961), as well as Lazarus (1961), is of a substitutive kind.

A certain need (in this case the need for achievement) may tend to be expressed strongly in fantasy whenever it is frustrated in real-life situations, especially when this need is either weak or only moderately strong.

Atkinson (1958), however, countered this argument by mentioning experimental findings which showed that under certain conditions, individual differences in the strength of a need or a motive could be assessed from manifest thematic content. This also seemed to be true for the other needs, as Pittluck (1950) had found that fantasy aggression and overt aggression were positively related.

The various opposing hypotheses mentioned above will have to be critically studied in experimental conditions to determine which one seems to come nearest the truth. In the present investigation it therefore seems safer to stick to observables and to take the second factor of the syndrome as achievement <u>fantasy</u> rather than achievement motivation. This ought to be permissible because a syndrome is seen as being essentially a surface classification.

9.5.3 Achievement value orientations

Values have been defined by C. Kluckhohn (1951) as,

> "... a person's idea of what is desirable, what he or others ought to want, not necessarily what he actually wants".
>
> (Kluckhohn, in: Lindzey, (1954, p.788)

Thus, according to Heider (1958), values tend to be perceived by the individual as independent of his wants - as impersonal and objective requirements imposed by the group and therefore possessing suprapersonal validity. Allport (1960) considers a value to be a belief upon which man acts by preference and which is thus a cognitive, a motor, and, above all, a deeply propriate disposition./

From the above definitions it is evident that for the assessment of a person's value orientation projective techniques are not well-suited (unlike the measurement of motives). Rather, verbal techniques (e.g., questionnaires) are the method of choice. A good example of such a verbal test is the "Study of Values" by Allport, Vernon and Lindzey (1960).

The first attempts at measuring achievement value orientations were made by Murray (1938) who designed questionnaire items in which the subject is asked to consciously assess his or her own achievement values.

By means of this verbal method the more cognitive structural aspects of personality are tested and less emphasis is placed on the measurement of the dynamic structures.

A review of various tests dealing with achievement values (e.g. French, 1958; Hurley, 1957) has already been given in Part A, Chapter IV, and the particular questionnaire items used in the present investigation are discussed in Part B, Chapter V.

In spite of the widespread use of questionnaires a word of caution is necessary. Murray (1938) was sceptical about the reliability and validity of most questionnaire items, including those on achievement values:-

> "We included some of the procedures commonly employed in academic studies: intelligence tests and a variety of questionnaires; but these contributed little to our understanding."
>
> (Murray, 1938, p. 33)

He gave the following reasons for the low reliability and validity of most questionnaire items:-

> "1. A questionnaire must necessarily be limited to a few among the many possible modes or situations in which the variable exhibits itself.
>
> 2. Subjects mark themselves on the basis of their everyday life; but since behavior cannot be estimated apart from its conditions ... (which) ... are not stated by them in scoring the questionnaire, the scores cannot be accepted as reliable measures of personality.
>
> 3. When the subject marks himself, he usually does so, consciously or unconsciously, in relation to others ... Thus every man uses a different standard of comparison.
>
> 4. Subjects differ markedly in insight ... Most people are protected from the knowledge of seeing themselves as others see them by all manner of repressions and internal projections.
>
> 5. Subjects may intentionally misrepresent themselves."
>
> (Murray, 1938, pp. 439-440)

In the/ ....

In the following experimental investigation it should therefore be borne in mind that the present-day measurement of achievement value orientations by means of questionnaire items has severe limitations and that any results should be interpreted with caution.

9.6 The relationship between achievement syndrome factors.

It has been assumed that the achievement syndrome consists of at least three factors, viz.:-

a) achievement behaviour
b) achievement fantasy
c) achievement value orientations.

The question now arises concerning the nature of the relationship between these three factors. Is it likely to be positive, or negative, or is there no significant relationship at all? Furthermore, does the relationship tend to change significantly when different populations are investigated?

A complicating aspect in this regard may be the relative difference in the ease with which the three achievement syndrome factors can be measured by their respective tests. It is, for instance, conceivable that someone's achievement fantasy (as tested by means of a projective technique) will be given more spontaneously than his actual strength of achievement value orientation (as measured by a questionnaire). In the latter test this person may, for example, either consciously want to appear in a better light or he may just echo the high achievement value demands made by his culture without having internalised them.

Furthermore, actual achievement behaviour may lie hidden and may not be recognised easily although it is, in fact, present. This may be due to mistakes through subjective rating or a predominance of other behavioural tendencies which mask the achievement behaviour, to mention only a few causes of error.

For all/....

For all the reasons advanced above it may be conceivable that the different achievement syndrome factors are not found to be intercorrelated. This possible tendency has been mentioned, among others, by McClelland, who wrote,

> "Actual strength of achievement cannot be considered a safe index of the strength of the need to achieve any more than eating can be considered a safe measure of the strength of the hunger drive. / In fact actual achievement is controlled by many more forces than eating-desires for social approval, power, or knowledge - to say nothing of ability factors, so it is far less a reliable index of the need to achieve than eating is of hunger."
>
> (McClelland, 1961, p.39)

and:-

> "... the entrepreneurial spirit is <u>not</u> necessarily reflected in beliefs and attitudes, as verbally expressed, of people known to be high in n Achievement in terms of their fantasies ... The data all indicate that one must make a very sharp distinction between what people <u>say</u> their attitude toward life is and what their attitude appears to be in terms of what they <u>do</u>."
>
> (McClelland, 1961, p.331)

An investigation of the relationship between the three achievement syndrome factors may be carried out by observing whether variation in the one necessarily involves concomitant variation in the others.

Independent variation of achievement fantasy can be produced by experimentally influencing the subjects' ego-involvement before and during the writing of imaginative stories and observing whether the achievement fantasy produced varies accordingly (McClelland et al., 1953). Independent variations of values can be achieved by means of cross-cultural comparison. This method has been applied in the present investigation.

9.7/ ....

9.7 The achievement syndrome as investigated by means of cross-cultural comparison

A method holding much promise seems to be an investigation of the different manifestations of the achievement syndrome in two or more distinct groups whose other characteristics are fairly well known and who show differences such as,

(a) differences in educational level (see Ch. VI, G.1)

(b) sex differences (e.g. Kurstein, 1963)

(c) cross-cultural differences (e.g. Kurstein, 1963, see also Ch. VI & VII).

The last-named method has, among others, been applied in South Africa by Danziger (1963) who contrasted Whites and Africans for the validation of the "Self-Rationalisation Index", and by Biesheuvel (1949) for an investigation of a variety of psychological tests.

In the present investigation, of which the experimental part is discussed subsequently, all three of the above-mentioned criteria were used, but special emphasis was placed on a cross-cultural comparison taking white English- and Afrikaans-speaking students and pupils as subjects.

Cross-cultural comparison between these groups in South Africa has the advantage that their values will tend to differ due to their dissimilar ideological orientations although their socio-economic and educational backgrounds will be comparable.

One important/ ....

One important factor influencing a person's "Weltanschauung" is the religious atmosphere in which he is raised and which he professes to follow. From data published in the South African "Statistical Yearbook" (1964) it can be deduced that only 11% of the South African English-speaking Whites belong to churches which can be said to embody a specifically Calvinistic doctrine (i.e., Presbyterians, Congregationalists, and Baptists). Among the Afrikaans-speaking Whites, on the other hand, no more than 1% belong to a non-Calvinistic confession.[x]

In 1904 the German sociologist Max Weber (transl. 1930) published his theory that the enterprising spirit of modern Capitalism was a consequence of certain value orientations emphasized particularly by the Calvinist churches.

This, he wrote, could be due to the Calvinists' insistence on the importance of a man's 'calling' by God. In opposition to Catholicism, Calvinism maintained that one should not withdraw from life and that seclusion was not a counsel of perfection.

Weber also pointed to the importance of the Calvinistic notion of 'predestination' by God which forced every believer to attempt to lead a methodical or fully rationalized life. Thus the Calvinist had to behave well in every respect in order to rid himself of the fear of being damned. By adhering closely to such predescribed values as mentioned above, it was psychologically possible to create in himself the conviction of his own salvation.

In Catholicism this rationalized asceticism had existed in the monasteries only; Calvinism transferred it into all walks of life.

[x]Personal communication by Prof. D.C.S. Oosthuizen, Dept. of Philosophy, Rhodes University.

The predominance/ ....

The predominance of the Calvinistic doctrine among Afrikaners and its relatively minor influence on English-speaking Whites may be a possible explanation for some important differences between these two cultural groups.

As Calvinism places great stress on positive achievement value orientations in this world to the greater glory of God, it can be expected that the Calvinistic Afrikaners will tend to show a stronger achievement value orientation than their English-speaking counterparts.

Achievement value orientations may therefore be seen as an independent variable of the achievement syndrome which will not tend to be positively related to achievement fantasy or achievement behaviour. It is not to be expected that Calvinistic dogma will influence achievement fantasy to this extent, since ideology can, after all, only influence conscious value orientations and not motives. McClelland (1961) is to be criticised on this point for not clearly distinguishing between achievement fantasy and achievement value orientations in his discussion of Weber's hypothesis mentioned above.

In the case of South Africa, the interesting point about the Afrikaans group is the association between Calvinistic ideology and traditionally low involvement in entrepreneurial activity. (This point has been discussed in the previous chapter, e.g. the comments by Wilcox on the "Poor Whites", and Sadie's findings on entrepreneurship among Afrikaners.) On the other hand, 39% of the English-speaking Whites are non-Calvinist and yet are strongly involved in entrepreneurial activity (as has been demonstrated in Chapter VIII).

As entrepreneurship/ ...

As entrepreneurship has been found to correlate positively with projectively-measured achievement fantasy (McClelland, 1961), one may expect that the English-speaking group will tend to obtain higher n Achievement scores.

One can therefore hypothesize that in the Afrikaans-speaking group there will be a tendency for strong cognitive achievement value orientation which should be reflected in relatively high scores on the relevant questionnaire items, and the coexisting relative lack of a dynamic achievement motivation as evidenced by lower n Achievement scores in fantasy stories .

In the English-speaking group one could, on the other hand, expect a greater lack of ideologically-inspired achievement value orientation going hand in hand with a larger amount of achievement behaviour.

These general expectations about the various achievement syndrome factors give rise to a number of specific hypotheses which will be enumerated in the second part of this investigation (Part B, Chapter I, 1.1).

These hypotheses will then be tested empirically, utilizing various English- and Afrikaans-speaking white groups as samples.

This experimental investigation might be able to elucidate the concept of the achievement syndrome and the different roles played by the three factors which constitute it.

PART B

EXPERIMENTAL CONTRIBUTION

TOWARDS RESEARCH

ON THE ACHIEVEMENT SYNDROME

Experimental procedures

1.1 Aims and hypotheses

In the previous chapter it was put forward that the achievement syndrome could be seen as consisting of three factors:-

a) achievement fantasy (measured by McClelland's n Achievement test);

b) achievement value orientations (measured by Murray's achievement value questionnaire);

c) achievement behaviour (measured by ratings of scholastic performance).

By contrasting several different cultural groups with regard to the above measures it was attempted:-

A) to find whether the measure of achievement fantasy and the achievement value orientation questionnaire showed the same statistical properties in South Africa as assumed for the United States;

B) to determine whether the achievement fantasy measure as well as the achievement value orientation questionnaire could detect significant differences between the various groups tested in the direction expected on socio-historical grounds, thus yielding a kind of validation of the measures;

C) to establish whether the interrelationships between the three achievement syndrome factors were statistically significant or not, and whether other tests administered were significantly related to one or more of these factors.

As a/...

As a result of the literature survey on

the three achievement syndrome factors,
cross-cultural research, and
the South African setting,

as summarised in the first part of this investigation, the following hypotheses were formulated:-

Hypothesis A.1 (Measurement)

The scoring reliability of the achievement fantasy measure will be sufficiently high to warrant further use of it in South African cross-cultural research.

(In the United States, correlation coefficients exceeding .80 were generally obtained; see pp. 20 - 21).

Hypothesis A.2 (Measurement)

The distribution of achievement fantasy scores in any one homogeneous group will not deviate significantly from that of the 'normal curve', so that it will be possible to apply parametric methods for the purpose of further study.

(The correctness of this hypothesis has not been questioned in the relevant literature).

Hypothesis A.3 (Measurement)

The three TAT-type cards administered will each be able to elicit achievement fantasy. The frequency will vary according to the cue value of each card.

(The differing ability of the cards to elicit achievement fantasy has been investigated in the U.S.; see pp. 22-27).

Hypothesis A.4/...

Hypothesis A.4 (Measurement)

The achievement value orientation questionnaire administered will possess sufficiently high reliability to be of value in the present investigation. In spite of all items being worded in a single (pro-achievement) direction, the 'acquiescent response set' present (if any) will be sufficiently small to warrant the use of the scale in the traditional uni-directional form.

(The correctness of this hypothesis has not been questioned in the relevant literature).

Hypothesis B.1 (Comparison)

Group differences in achievement fantasy level will not only tend to be reflected in the average score of all cards, but in the score for every single card as well.

(This assumption has been made by McClelland; see p. 25).

Hypothesis B.2 (Comparison)

There will be no differences in achievement fantasy scores between students and pupils.

(According to the literature survey, the achievement motive is generally seen as being stable over time, as stated on p. 28; furthermore, achievement fantasy scores are not consistently related to academic achievement; see p. 60-70).

Hypothesis B.3/...

1.2 Subjects

1.2.1 University of Cape Town sample

The n Achievement measure and various questionnaires including one on achievement values had already been administered to a University of Cape Town sample when the present study was embarked upon. This group consisted of 125 students (32 males and 93 females) who started on, or repeated, Course I in Psychology in 1962.

A further group of 25 male students at this university who were engaged in a first year study of medicine, engineering and science was also tested to determine whether their amount of achievement fantasy would differ from that of the Course I Psychology students.

1.2.2 University of Stellenbosch sample

Testing at the University of Stellenbosch was carried out during three different sessions:

(a) 92 Course I Psychology students (43 males and 49 females) were tested by members of the departmental staff under the supervision of Prof. A.B. van der Merwe.

(b) A further sample of 44 Course I Sociology students (19 males and 25 females) was tested by the author.

(c) Finally, all Course I medical students attending a Botany I practical were tested in the same way. They numbered 52 (46 males and 6 females).

Sample (c) had been selected to make the sample more representative.

1.2.3/ ...

1.2.3 High school sample: Afrikaans- and English-speaking subjects

The present study originally encompassed only university students. However, it was soon felt necessary to undertake a parallel study at the high school level to ensure that the presence or absence of differences in achievement fantasy and achievement value scores between the cultural groups was not perhaps due to the fact that all subjects belonged to the more select group of university students.

The schools chosen were Bellville High School for the Afrikaans-speaking sample and Westerford High School for the English-speaking sample. Both schools are co-educational and can be assumed to contain pupils from a fairly similar socio-economic urban background.

In both instances it was possible to test all pupils of Std. 9, so that there was no significant difference in age between the two schools. The testing programme was administered by the author in the same way as at the universities. The size of the sample amounted to 72 at Bellville (35 males and 37 females) and 106 at Westerford (60 males and 46 females).

1.2.4 High school sample, Hamburg, Germany

It had furthermore become possible to test a sample of 35 male pupils at a high school in Hamburg, Germany. The actual testing was carried out by a final-year psychology student at the University of Hamburg. The class tested was "Obersekunda", which is in many aspects equivalent to the South African Std. 9. All pupils tested in Hamburg were between 17 and 18 years of age.

1.2.5/ ....

1.2.5 Differentiation between English-speaking Gentile and Jewish subjects

After scoring the n Achievement protocols, it became apparent that there could possibly be differences between the English-speaking Gentiles and the Jewish subjects. It was therefore decided to differentiate between these two groups, both in the University of Cape Town and in the Westerford High School sample. The differentiation was carried out by giving the names of all subjects to four independent judges who were all very familiar with Jewish surnames, apart from knowing many of the subjects personally. A subject was taken to be either Jewish or Gentile only if there was complete agreement between all judges, otherwise that person's name was put into the "doubtful" category.

This led to the result that 44 students could not be placed into any one of these two groups with certainty. These persons, henceforth classed separately, were then only used in group comparisons where both the English-speaking Gentile and Jewish groups were used jointly. There were 34 Jewish students from the University of Cape Town sample and 13 Jewish pupils from Westerford High School.

1.2.6 High School Jewish sample

As the number of Jewish pupils from Westerford High School was rather small for testing the significance of differences as regards other groups, it was decided to repeat the same testing programme at Herzlia High School, Cape Town. Here, again, it was possible to test the whole Std. 9 class in 1963. Additional protocols of this school had already been obtained from the 1962 Std. 9 class in the course of another investigation for an M.A. thesis. All in all, test protocols of 62 subjects (39 males and 23 females) were obtained from this school.

1.2.7/...

1.2.7 Size of the total sample tested for achievement fantasy

The protocols of 578 subjects could be evaluated for the presence or absence of achievement fantasy. Of these, 296 were written by English-speaking subjects, 247 by Afrikaans-speaking subjects and 35 by German-speaking subjects. A detailed analysis is given below:-

Table 1.a Number of imaginative stories obtained for the assessment of achievement fantasy

Group	males	fem.	total
1. Gentile English-speaking arts students	25	51	76
2. Gentile English-speaking science students	28	-	28
3. Gentile English-speaking pupils	54	41	95
4. Jewish arts students	5	24	29
5. Jewish science students	5	-	5
6. Jewish pupils	25	16	41
7. English-speaking (Jewish ?) arts students	2	18	20
8. English-speaking (Jewish ?) science stud^{s}	2	-	2
9. Afrikaans-speaking arts students	59	74	133
10. Afrikaans-speaking science students (med.)	36	6	42
11. Afrikaans-speaking pupils	35	37	72
12. German-speaking pupils	35	-	35
total:-	311	267	578

1.3 Materials used for testing

The following tests were administered to each subject:

1.3.1 McClelland's n Achievement measure, as described in detail under section 1.5 in this chapter as well as in the Appendix.

The choice of TAT-type cards was largely determined by the fact that all the Course I Psychology students at the University of Cape Town had been asked at the beginning of term in 1962 to write imaginative stories in response to cards which had been administered according to the instructions given by McClelland. This had been carried out before the present investigation was started.

The following cards had been utilized:

1. Two men clad in overalls standing in a workshop and looking or working at a machine (according to McClelland, 1953, p.99);
2. Murray's TAT card no. 2: Country scene: in the foreground is a young woman with books in her hand; in the background a man is working in the fields and an older woman is looking on (according to Murray, 1943, p. 18);
3. A boy in a checkered shirt sitting at a desk with an open book before him, and looking into space (according to McClelland, 1953, p.99).

Cards no. 1 and 3 have been specially devised by McClelland (1953) for use in his n Achievement measure. Reproductions of all three pictures are given in the Appendix.

For greater brevity these pictures are henceforth called:

1. "2 Workers", or "2 W";
2. "Farm Scene", or "FSc";
3. "Boy and Book", or "BB".

1.3.2/ ..

1.3.2 Questionnaire items on achievement value orientations

A separate chapter has been devoted to the questionnaire items on achievement value orientations (Part B, Ch. V) and relevant details are therefore not repeated here.

1.3.3 Other tests given

Testing sessions were not only conducted for the purpose of the present study alone, but included other tests as well. They were:-

(a) Future autobiographies, which were scored for each subject's Index of Self-Rationalization (Danziger, 1963).

(b) The "F-scale" (Adorno et al., 1950), which claims to measure authoritarian tendencies.

1.4/...

1.4 Testing procedure

Testing sessions commenced after the author had been introduced to the particular class by the lecturer or teacher in charge. The subjects were asked for their co-operation in order to supply material for a doctoral dissertation.

All subjects were put at ease as much as possible, and then the n Achievement measure was administered. This test was always given before all others, so that the motivation of the subjects was not in any way influenced by replies given to the other tests. It was thus endeavoured to collect the imaginative stories under conditions which varied as little as possible from group to group.

The n Achievement measure was administefed in the following way: Sheets of folio paper, stapled together, were given to each subject after the class had been told that they were being asked to co-operate in a test of "creative imagination". Every page had the same four questions printed on it in such a way that the same proportion of writing space was available for giving an answer to each question. (See Appendix, p.227 for sample sheets in the three languages used.)

The following instructions were read after these sheets had been distributed to all subjects:

"This is a test of your creative imagination. A number of pictures will be projected on the screen before you. You will have twenty seconds to look at the picture and then about four minutes to make up a story about it. Notice that there is one page for each picture. The same four questions are asked. They will guide your thinking and enable you to cover all the elements of a plot in the time allotted. Plan to spend about a minute on each question. I will keep time and tell you

when it/...

when it is about time to go on to the next question for each story. You will have a little time to finish your story before the next picture is shown.

Obviously there are no right or wrong answers, so you may feel free to make up any kind of story about the pictures that you choose. Try to make them vivid and dramatic, for this is a test of creative imagination. Do not merely describe the picture you see. Tell a story about it. Work as fast as you can in order to finish in time. Make them interesting. Are there any questions? If you need more space for any question, use the reverse side."

(taken from McClelland, 1953, p. 98)

(Afrikaans and German translations are given in the Appendix, pp. 222)

After the instructions had been read aloud, the lights were switched off and card 1 "2 Workers" was projected onto a screen for twenty seconds. Once the light had been turned on again, the subjects started on their stories. Time was kept with a stop watch and every sixty seconds the subjects were asked to go on to the next question. Some 15-20 seconds were allowed after the last question on every page for everyone to complete their story. Thereafter the next card was projected and the testing procedure repeated without interruptions until the last card had been shown.

The order of presentation of cards was as follows: -

1. "2 Workers"
2. "Farm Scene"
3. "Boy and Book"

The n Achievement test was followed by the administration of the various "True - False" - type questionnaires. Instructions on how to answer them were always printed on the top, and read out aloud in front of the class so that no misunderstandings could occur.

1.6 Scoring for achievement fantasy.

1.6.1 Description of the scoring method

The method followed was that of McClelland (1953), who used TAT - type cards to elicit fantasy stories from his subjects, as Murray (1938) had done before him. Unlike Murray, however, McClelland devised an elaborate scoring system in an attempt to quantify the amount of achievement imagery found in these projective stories. Furthermore, the responses of the subjects were channelled to some extent by asking them to write their replies to each card on a piece of folio paper which had been subdivided under the following four headings:-

1. What is happening? Who are the persons?
2. What has led up to this situation? That is, what has happened in the past?
3. What is being thought? What is wanted? By whom?
4. What will happen? What will be done?

This subdivision results in a more complete coverage of any story in most of its important aspects (past, present and future) than would be the case when answers were allowed to be unstructured.

All stories obtained were scored for achievement fantasy by the method of McClelland (1953). According to him, a story can only be scored if it meets two criteria: -

1. Events and people in the story must show some evaluation of individual performance in relation to and in competition with a standard of excellence, and,
2. Some affect, either positive or negative, must be connected with the evaluated performance.

The underlying/ ....

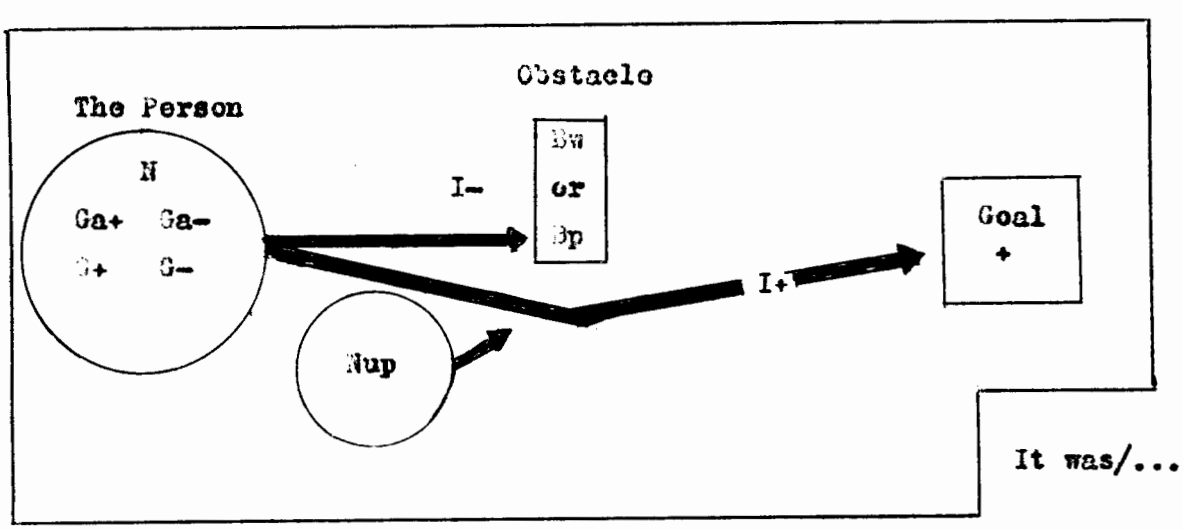
The underlying assumption is that the more the subject shows signs of meeting the above criteria in unstructured response situations (e.g., in response to TAT - type cards), the greater will be the part which achievement motivation plays in that subject's personality.

The following is the scheme underlying the scoring system: -

> "...we perceive the behavioral sequence when an individual experiences a state of need or motive (N)... He may also be anticipating successful attainment of his goal (Ga+) or anticipating frustration and failure (Ga-). He may engage in activity instrumental (I) to the attainment of his goal which may lead to the attainment of the goal (I+) or not (I-). Sometimes his goal-directed activity will be blocked. The obstacle or block (B) to his progress may be located in the world at large (Bw) or it may be some personal deficiency in himself (Bp). He may experience strong positive and negative affective states while engaged in solving his problem, i.e., in attempting to gratify his motive. He is likely to experience a state of positive affect (Ga+) in goal attainment, or a state of negative affect (Ga-) when his goal-directed activity is thwarted or he fails. Often someone will help or sympathize with him - (Nurturant press or Nup.) - aiding him in his goal-directed behavior."
>
> (McClelland, 1953, p. 108)

This analysis of the behavioural sequence is presented as follows in the form of a diagram: -

Table I.b Position of the scoring categories in the adjustive behavioural sequence (after McClelland, 1953, p. 109)



It was/...

It was stated by McClelland (1953), that,

> " ... it must first be decided whether or not the story contains any reference to an achievement goal which would justify scoring the sub-categories (Need, Instrumental Activity, and so on) as achievement-related. By achievement goal is meant success in competition with some standard of excellence. That is, the goal of some individual in the story is to be successful in terms of competition with some standard of excellence. The individual may fail to achieve this goal, but the concern over competition with a standard of excellence still enables one to identify the goal sought as an achievement goal".
>
> (McClelland, 1953, p. 110-111)

The criteria to be met if a story is to be scored for achievement imagery are fully explained in the Appendix.

1.5.2 Scoring of the imaginative stories obtained

Before an evaluation of the stories could be undertaken, a thorough knowledge of the detailed scoring method was obtained, as it has been described by McClelland, Clark, Roby et al (1949). This task was greatly facilitated by making use of the self-scoring material provided by Smith and Feld (1958).

Scoring practice was kept up until satisfactory rank-order correlations between the writer's own scores and those of the "expert scoring" were attained. Short practice runs were also carried out again whenever a break of more than a few days had occurred between scoring of protocols.

Once sufficient mastery of the scoring technique had been obtained, all 575 protocols were evaluated for the presence or absence of achievement fantasy and listed on scoring sheets, a sample of which is reproduced on the following page.

Table/ ....

Table 1.c Scoring sheet for achievement fantasy (sample)

Story No.	UI -1	TI 0	AI +1	I +?-+1	Ga+ +1	Ga- +1	G+ +1	G- +1	Nup +1	Bp +1	Bw +1	Ach Th. +1	ach. fant. score
1.	x												-1
2.			x	x			x			x			+4
3.		x											0
Total	-1	0	+1	+1			+1			+1			+3

Whenever a story was thought to contain unrelated imagery only, the score of -1 was entered into the "UI" column and no further scoring of this story was done (e.g., story 1 in the above table).

If a story contained imagery, which, however, did not meet the two criteria mentioned previously, a zero score was entered in the "TI" column and the story was not scored any further (e.g., story 3 in the above table).

Only when a story contained achievement fantasy were the sub-categories scored, as can be seen, e.g., with story 2 on the above table.

In contrast to McClelland et al., who used the arithmetical sum of the scores of all cards administered for the calculation of a subject's total achievement fantasy score, the final score in the present study was taken to be the sum of all scores divided by the number of cards used. In the above table, the final score would therefore be 3 divided by the number of cards (3) which would give a final score of 1.

Scoring reliability/...

C H A P T E R II

Problems of measurement

Problems of measurement

2.1 Scoring reliability (Hypothesis A.1)

Every individual will have slightly different ideas on the scoring procedure of the imaginative stories, no matter how precise the instructions are. An independent check by another person well versed in the scoring procedure, was therefore indicated.

At the time of this investigation, Mrs. Ethel Walt was engaged in a psychological study of subjects from a Jewish school in Cape Town. She had, among others, also administered McClelland's test to Std. 9 pupils in 1962. This sample, numbering 62 protocols, was scored independently by Mrs. Walt and by the writer. The rank-order correlations were computed according to Spearman's formula, and a r_{rho} of 0.81 was obtained. This result points to a satisfactory scoring reliability, and is seen as being sufficiently high by the authors of the "Scoring Manual".

2.2 Reasons for excluding the German achievement fantasy scores from further calculations

The testing programme at the school in Hamburg, Germany, met with considerable resistance on the part of the subjects. This was most marked in the future autobiographies (Danziger, 1963), and can also be noticed when reading through the imaginative stories. Very often, only a threadbare description was given of the pictures without using any imagination. These non-committal answers did, of course, yield very little in the line of achievement fantasy which could be scored.

This attitude/...

This attitude of sticking religiously to the pure description of the pictures without any elaborations was found in many stories. Consequently, the total average score of the 35 male subjects amounted to only 1.03 as opposed to the grand total average score of 1.54, (n = 575).

A significant difference between the German group and all others was found to exist by means of a X^2 - analysis. This difference, (Germans being lower on n Achievement score), was significant at the 5% - level of confidence; (X^2 = 4.56, d.f. = 1).

The resentment at being tested was so intense in some cases that the parents of several boys wrote to the school principal in protest. This was in marked contrast to the South African conditions where most, if not all, students and pupils were willing to co-operate.

On the grounds of these findings it became clear that the results of the German sample were to a large degree influenced by their unwillingness to co-operate. These scores had therefore to be excluded from all further calculations.

It is therefore suggested that this problem of resentment towards being tested be gone into prior to any cross-cultural research with German subjects. This was unfortunately not possible in the present study, as the testing in Germany could not be carried out by the writer himself.

2.3 Distribution of scores (Hypothesis A.2)

2.3.1 Introduction

At the commencement of the present investigation it had been assumed that the distribution of achievement fantasy scores would not tend to deviate significantly from the normal curve in any one homogeneous group, as nothing to the contrary had been voiced in the relevant literature.

This implicit assumtion of normality was further strengthened by the finding that in many cases the authors of articles on the measurement of achievement fantasy had used parametric measures like the t-test for further processing of their data.

After all the achievement fantasy scores in the present investigation had been calculated according to the prescribed manner it seemed, however, advisable to check whether their distribution did, in fact, follow the normal curve pattern. Only then could the selection of a statistical technique for further analysis of the data be considered.

2.3.2 Selection of homogeneous groups

The total sample tested for achievement fantasy consisted of groups which could possibly differ as regards:-

direction of study at university,
educational level,
sex,
cultural orientation and home language.

This made it necessary to plot the frequency distribution of achievement fantasy scores for each group separately.

Graphs/...

Graphs of the following were thus obtained:-

a) Gentile English-speaking male students (n=53)
b) Gentile English-speaking female students (n=61)
c) Gentile English-speaking male pupils (n=54)
d) Gentile English-speaking female pupils (n=41)
e) Jewish female students (n=24)
f) Jewish male pupils (n=25)
g) Jewish female pupils (n=16)
h) Afrikaans-speaking male students (n=95)
i) Afrikaans-speaking female students (n=74)
j) Afrikaans-speaking male pupils (n=35)
k) Afrikaans-speaking female pupils (n=37)

The total number of Jewish male students amounted to 10 which did not warrant a separate graph. Furthermore, the scores of arts and science faculty students were combined so as not to have too few cases per group. This measure seems justified by the finding that these two groups do not differ significantly as regards their achievement fantasy score distribution (as shown in Part B, Ch. III).

The frequency polygon of each group showing the distribution of achievement fantasy scores (average score for all three cards), as well as its estimated best-fitting normal curve, is presented in Part VI of the Appendix.

An inspection of these graphs shows that there seems to be a great divergency between the form of each single frequency polygon and its own estimated best-fitting normal curve. In every instance this curve was calculated after making the assumption that the mean and standard deviation of the obtained scores were the mean and standard deviation of the normal curve which would have come closest to the data (Guilford, 1956).

Apart from/...

Apart from the apparent skewness of many distributions the most noticeable characteristic in each and every case seems to be the fact that a marked drop in frequencies occurs between the achievement fantasy score of -.33 or zero and the score of +1.00. This tendency exists regardless of the position of the mode which is situated either at the average score point of -.33 or zero (in all Afrikaans-speaking and Jewish subjects as well as the Gentile English-speaking male pupils sample) or at the score of +1.33 (in the case of the male and female Gentile English-speaking students and the female Gentile English-speaking pupils).

2.3.3 Testing for departure from the normal curve

For the purpose of establishing quantitatively whether or not the observed frequencies in the distributions of the various groups could have arisen from a normally-distributed population it was decided to apply the X^2-test for goodness of fit as described by McNemar (1949).

Due to the fact that small tail frequencies have to be grouped together when applying this test (no expected frequency should be less than ten) it is advisable not to have less than 50 - 100 observations in any one instance (Pearson and Hartley, 1962). It therefore became necessary to combine some groups to attain the required minimum, though care had to be taken not to combine groups which differed significantly in respect of their achievement fantasy score distributions.

Subsequent calculations (see Part B, Chapter III) showed that there were no statistically significant differences between the achievement fantasy scores of:-

arts faculty/...

arts faculty and science faculty students,
students and pupils,
males and females,

when the average score of all three cards was taken.

These findings permitted larger groupings to be made without endangering the validity of the X^2-test for goodness of fit.

The groupings were therefore made as follows:-

a) all Gentile English-speaking males	(n=107)
b) all Gentile English-speaking females	(n= 92)
c) all Jewish males	(n= 33)
d) all Jewish females	(n= 40)
e) all Afrikaans-speaking males	(n=130)
f) all Afrikaans-speaking females	(n=111)

The frequency polygons of the above groups as well as their estimated best-fitting normal curve are presented overleaf on Graphs 2.a - 2.f.

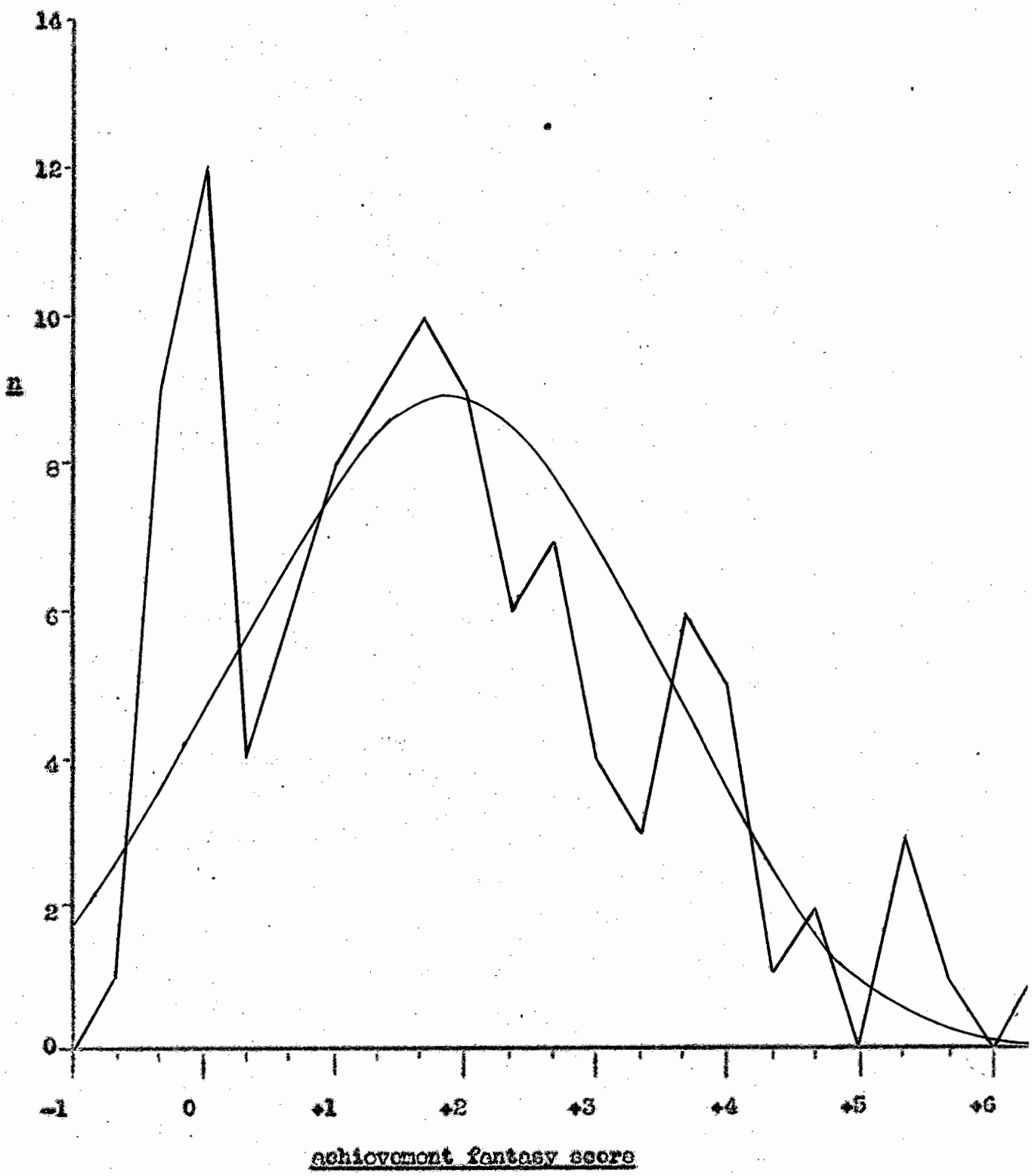
All six frequency polygons again show a very marked bimodality as well as a tendency to positive skewness of distribution, the lowest point between the two main peaks again being situated at the score of +.33 or +.67 on the x-axis.

Graph 2.a/...

Graph 2.a

Gentile English-speaking males, n = 107

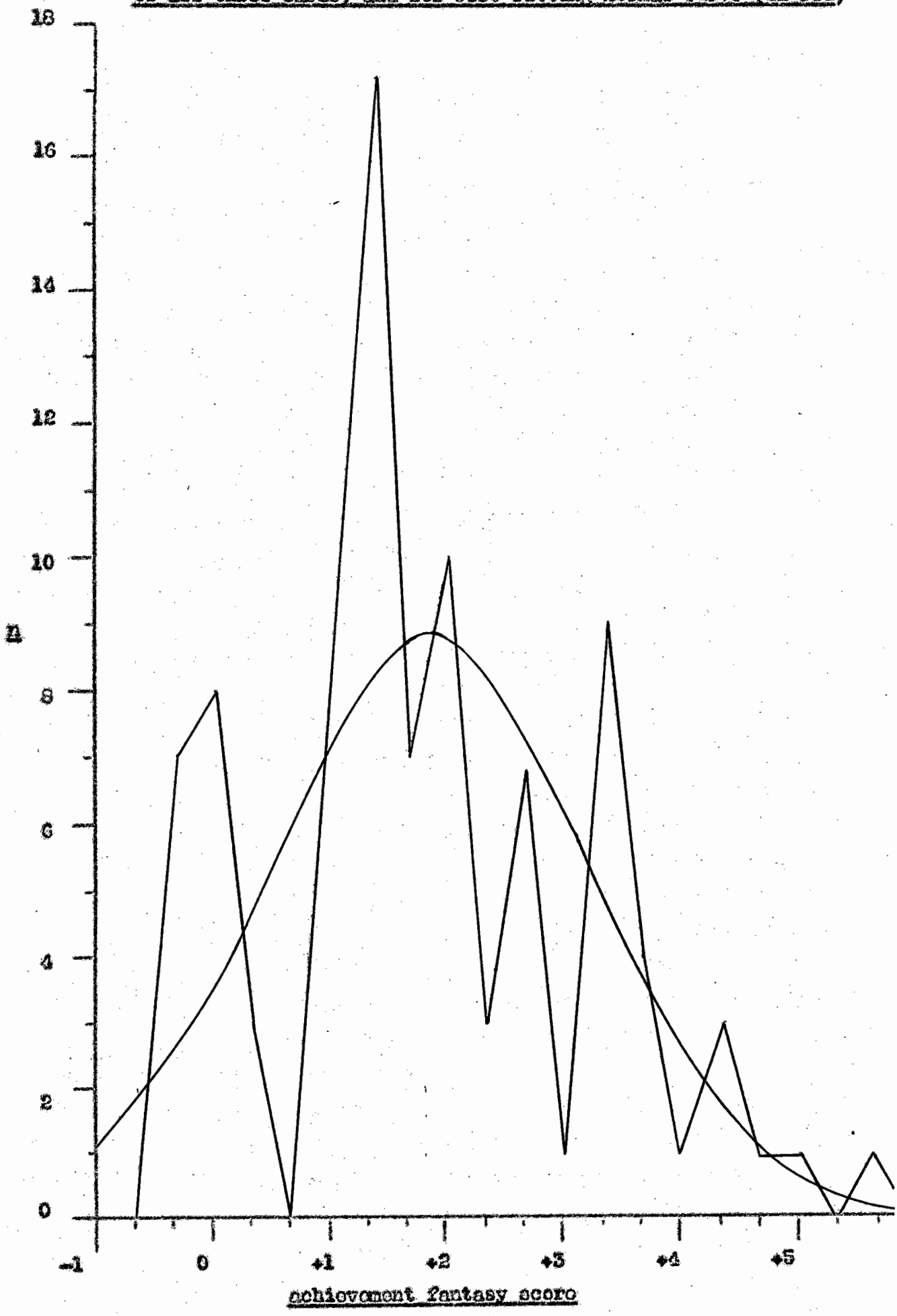
Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)



Graph 2.b

Gentile English-speaking females, n = 92

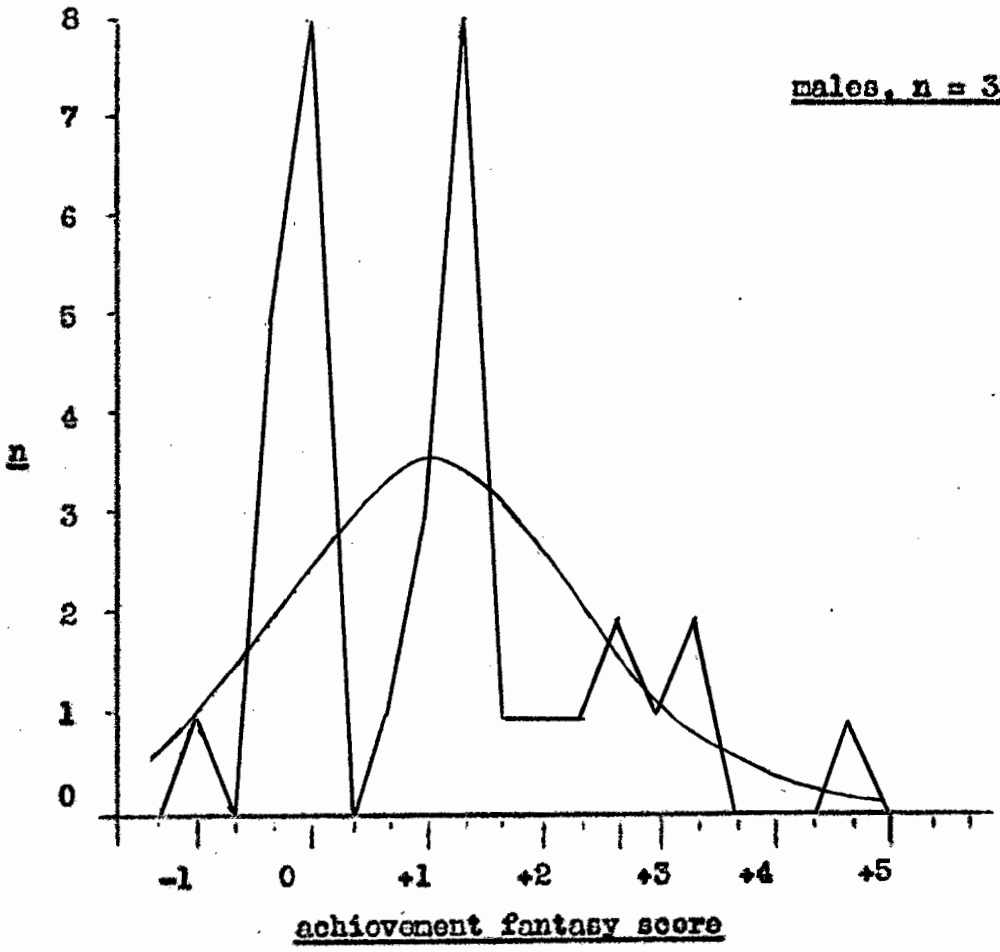
Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)



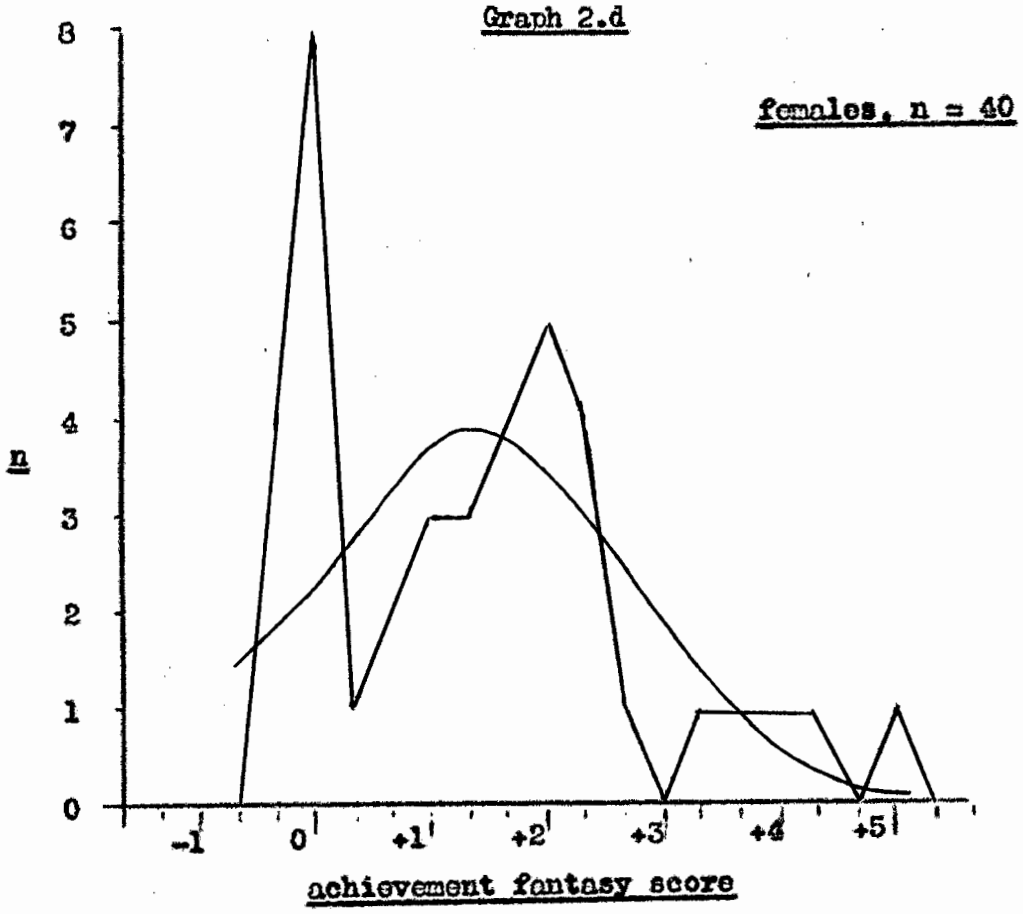
Graph 2.c

Jewish samples

Frequency polygons of achievement fantasy scores (average score of all three cards) and their best-fitting normal curves (in red)



Graph 2.d



Graph 2.e

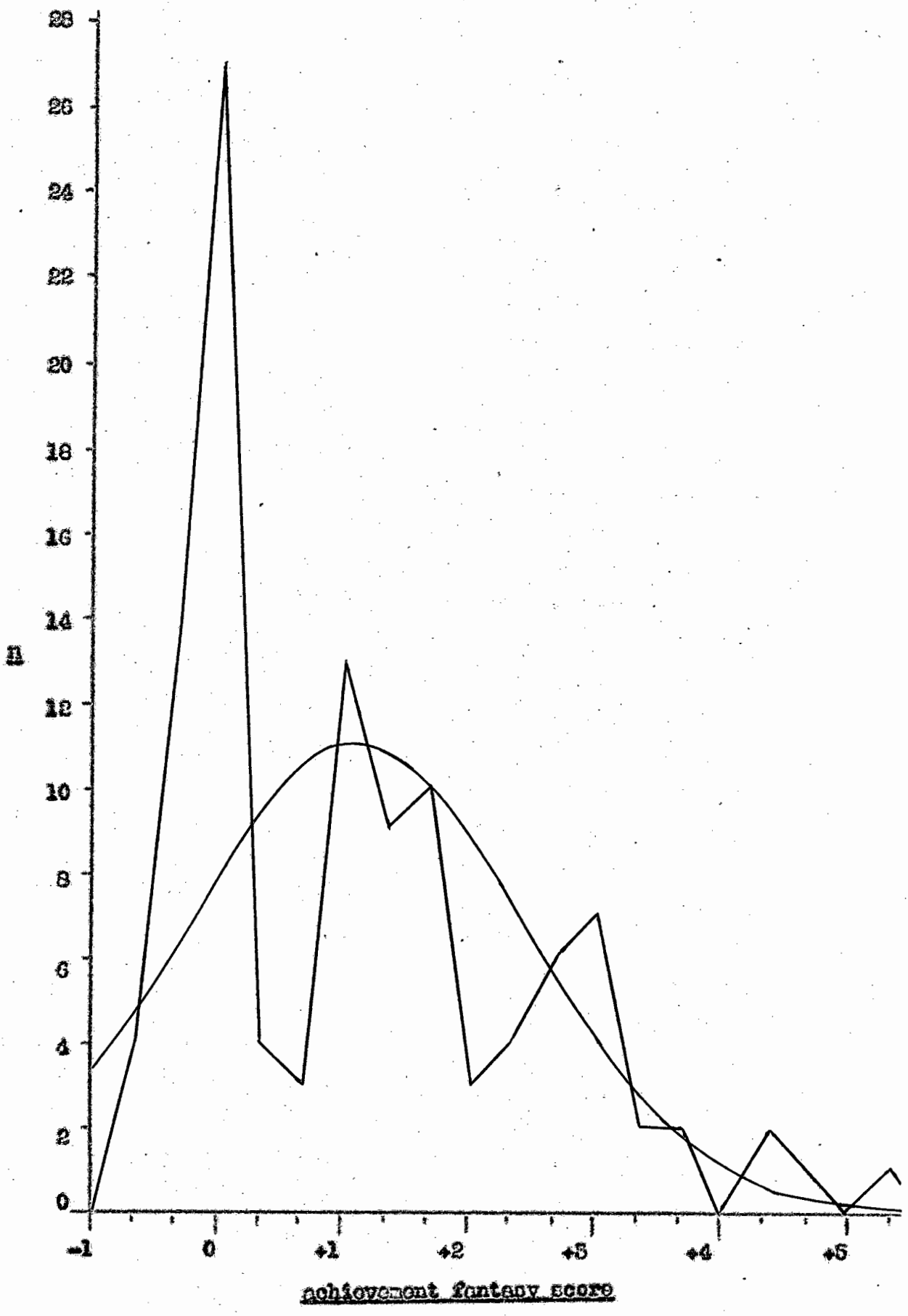
Afrikaans-speaking males, n = 130

Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)

Graph 2.f

Afrikaans-speaking females, n = 111

Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)



2.3.3.1 X^2-test for goodness of fit

Computations showed that each single group mentioned previously deviated from the normal curve, this being significant at the 0.1%-level of confidence in each case. When the scores of males and females from each of the three cultural groups were added, this significant difference persisted, again at the 0.1% - level of confidence. The results are summarised in Table 2.g.

2.3.3.2 Computation of skewness

Apart from recommending the X^2-test for goodness of fit, Pearson and Hartley (1962) also point out that certain functions of the moment of the sample ought to be calculated and should then be examined as regards the significance of their departure from the expected values for a normal population. This should be done because the X^2-test tends to be somewhat insensitive to real departures from normality. According to the formula given by these authors,

$$\text{degree of skewness } (\sqrt{b_1}) = \frac{m_3}{m_2\sqrt{m_2}}$$

where m_1, m_2 and m_3 are the first three moments about the mean. Departure of $\sqrt{b_1}$ from the 'normal' value of zero is an indication of skewness in the frequency function of the sampled populations. Pearson and Hartley (1962) furnish tables by means of which it can be established whether the skewness of the observed frequency distribution deviates significantly from that of the normal curve.

It was found that in every one of the groups mentioned previously the observed frequency distribution deviated significantly from the normal curve distribution in the aspect of skewness, as shown in Table 2.g overleaf.

Table 2.g/...

Table 2.g Significance of the differences between three aspects of various achievement fantasy score distributions and their corresponding estimated normal curves

GROUP	(A) p	(B) p	(C) p
Gentile English-speaking males	<.001	<.01	N.S.
Gentile English-speaking females	<.001	<.05	N.S.
Jewish males	<.001	<.05	<.01
Jewish females	<.001	<.05	N.S.
Afrikaans-speaking males	<.001	<.01	N.S.
Afrikaans-speaking females	<.001	<.01	N.S.
all English-speaking subjects, Gentile	<.001	<.01	N.S.
all Jewish subjects	<.001	<.01	<.01
all Afrikaans-speaking subjects	<.001	<.01	<.01

(A) = X^2 - test for goodness of fit

(B) = skewness

(C) = kurtosis

2.3.3.3 Computation of kurtosis

Pearson and Hartley (1962) suggest the use of a method developed by R.C. Geary (1935, 1936) to detect changes in kurtosis in samples numbering less than 200, where

$$\text{kurtosis (a)} = \frac{\text{mean deviation}}{\text{standard deviation.}}$$

Here again the significance of deviation from the normal curve can be obtained from tables supplied by Pearson and Hartley.

When testing the six different groups with this method, it was found that the deviation from the normal curve was significant for the following groups:-

Jewish males	(1%-level of confidence)
Afrikaans-speaking males	(1%-level of confidence)

as well as

all Jewish subjects, male and female	(1%-level of conf.)
all Afrikaans-speaking subjects, m.&f.	(1%-level of conf.)

In the case of the other groups the deviation did not reach statistical significance.++ All results are displayed in Table 2.g.

++ When inquiring about this somewhat unexpected finding that the majority of these strongly bimodal distributions did not deviate significantly from the normal curve as far as their kurtosis was concerned, Dr. C.G. Troskie, lecturer in Mathematical Statistics at the University of Cape Town, could not readily advance an explanation. He stated, however, that in any distribution only one of the two aspects (skewness or kurtosis) needed to show a significant deviation from the normal curve for it to become unacceptable for further processing by methods presupposing normality of distribution.

In any event the X^2-test for goodness of fit has proved conclusively that in each one of the groups one cannot talk of a normal distribution even if the test for changes in kurtosis does not show a significant deviation from the normal curve in all cases.

2.3.4 Conclusions

The survey of literature showed that parametric tests were generally used in connection with the achievement fantasy measure. This seems to imply that investigators assumed the variable in question - achievement fantasy - to be normally distributed in the populations from which their samples were drawn.

In the present investigation it was found that the distribution of achievement fantasy scores differed significantly from the normal curve in every sample tested. This result may be due to a non-normal distribution of achievement fantasy in the South African populations of which samples were drawn. It may, on the other hand, also be due to the imperfect scoring system of the achievement fantasy measure. It could even be due to the presence of both factors.

Whatever the cause might be, it is inadvisable to use parametric methods (such as the t-test), and distribution-free tests should be selected instead. Of these, the Chi-square test (X^2) is the most widely used.

The scoring system for achievement fantasy is of such a nature that a strong tendency towards bimodal distribution of scores exists. This seems to be due to the fact that during the process of scoring two distinct judgements have to be made:-

a) whether achievement fantasy is present or not,
b) if it is absent, no further decisions need be made apart from assigning the 'minus one' score to 'unrelated imagery' and the zero score to 'task imagery'. Should achievement fantasy, however, be present, the elaborate scoring system is brought into play and the individual story can then be assigned a score ranging from plus one to a maximum of plus eleven. (A detailed description of the scoring system is given in Part IV of the Appendix.)

The various/...

The various graphs referred to previously all show that the detailed scoring system of stories which do contain achievement fantasy tends to give rise to a frequency distribution which resembles the normal curve much more than the distribution containing all the scores, including the minus and zero ones. Here, the curve normally starts at +.33 and reaches its apex between the scores of +1 and +2. Beyond this it drops off rapidly until it reaches the value of +3.5 after which the curve tends to flatten out.

Criticism of the methods used by McClelland et al. may not be out of place in this context. A survey of literature on achievement fantasy fails to show any research which has been devoted to the inherent tendency of the achievement fantasy scores towards a markedly bimodal, and thus non-normal, distribution. The use of statistical methods presupposing a normal distribution has not been questioned and an indiscriminate use of these (e.g., the t-test) has taken place where distribution-free methods ought to have been selected instead.

The possibility does, of course, exist that subjects tested for achievement fantasy in the United States tend to have positive achievement imagery significantly more often than the various groups tested in South Africa. In the former samples this could conceivably result in a tendency for the U.S. distributions to show a far smaller peak around the score of zero and concomitantly a less noticeable drop between the scores of zero and plus one. In that case it is possible that the deviation from the normal curve would no longer be statistically significant.

Viewing the/...

Viewing the South African samples, this tendency is visible when the distributions of the Gentile English-speaking subjects are compared with those of their Afrikaans-speaking counterparts. Bimodality is less evident in the distributions of the former, although it is still serious enough to prevent them from being normal. Yet the tendency towards bimodality is always present and will become evident as soon as the stories of a sufficiently large number of subjects do not fulfil the requirements laid down for the scoring of achievement fantasy. Although it is conceivable that this problem was not easily noticeable when scoring the stories of American college students (which have been used most often as they are readily available for testing) there are certain to be many groups in the U.S. which will obtain lower scores and which must then necessarily, upon the drawing of their frequency polygon, direct the attention to the problem of non-normality.

Of course there is little doubt that the X^2 - method is far more coarse than the t-test analysis, since the former does not take individual differences into account over and above a dichotomization into "highs" and "lows" as regards the variable in question.

Now it can be seen from the frequency distributions of the three cultural groups tested that between one third and one half of all subjects did not give any achievement fantasy responses. If dichotomization for a X^2 - analysis were carried out in such a way that non-scorers fell into the "low" half only, the whole elaborate scoring procedure devised to measure very small differences in the amount of achievement fantasy present would become redundant. As far as the X^2 - test is concerned, the cut-off point for dichotomization can safely be chosen somewhat removed from the median if the size of the majority of groups investigated exceeds one hundred.

It is evident that the problem of achievement fantasy score distributions deserves more attention than it has hitherto received.

2.4/...

2.4 A comparison of the three pictures as regards the amount of achievement fantasy elicited (Hypothesis A.3)

The three pictures which had been presented to all subjects differed widely in content. The picture of the two workers looking or working at a machine (No. 1) would presumably give rise to more achievement fantasy responses than the "Farm Scene" (No. 2), as the former seems to be far more task-oriented. In the "Farm Scene", many responses unrelated to a working situation are possible, e.g., stories of love and hate between the girl in the foreground and the figures in the distance. The greater variation may thus be due to two factors: (a) the girl, who is the focal point of the picture, is not actively engaged in some work; (b) the presence of both sexes can easily give rise to stories of hetero-sexual relationships without any references to achievement.

It could furthermore by hypothesized that card no. 3, "Boy and Book" would elicit more achievement fantasy responses than the "Farm Scene"; as the boy, unlike the girl, is pictured with an open book which implies some previous or future action which could easily be concerned with achievement.

It was therefore necessary to establish how much each card was worth as regards eliciting achievement fantasy responses, and, furthermore, if this cue value was the same for all groups tested.

Extensive comments on the cue characteristics of cards have been made by Jacobs (1963), and are summarized in the literature survey on pp. 22-24.

By calculating/ ...

By calculating the significance of changes between the three cards administered to each subject individually, these hypotheses were checked. The following formula was used to ascertain whether the change in achievement fantasy between any two cards was indeed significant: $X^2 = \frac{(/A-D/-1)^2}{(A+D)}$ (McNemar, 1949). Here A is the number of subjects in a given group, who scored achievement fantasy on the first card but not on the second card; D being the number of subjects in the same group, who obtained no achievement fantasy score for the first card, but who did score on the second one. The results of these calculations have been tabulated on the pages overleaf.

2.4.1 Comparison between card 1 ("2 Workers") and card 2 ("Farm Scene")

There was a highly significant decrease ($p < .001$) in the amount of achievement fantasy responses from card 1 to card 2, taking the total sample as well as the English-speaking Gentile, the Jewish and the Afrikaans-speaking groups separately.

2.4.2 Comparison between card 1 ("2 Workers") and card 3 ("Boy and Book")

Here, too, a significant decrease of achievement fantasy from card 1 to card 3 was found, ($p < .001$), when using the total sample. Further analysis showed clearly that this decrease occurred only in the English-speaking Gentile and Jewish sample, but not among the Afrikaans-speaking subjects.

This implies that card 3 elicited proportionately less achievement fantasy than card 1 in the English-speaking Gentile and Jewish groups, but does not, of course, imply that the average achievement fantasy score for card 3 is necessarily lower for the two English-speaking samples.

2.4.3/ ....

2.4.3 Comparison between card 2 ("Farm Scene") and card 3 ("Boy and Book")

Again the hypothesis was confirmed that there was a significant decrease in achievement fantasy ($p < .05$) from the "Boy and Book" card to the "Farm Scene" card, taking the total sample.

On further analysis it becomes evident that there are only two groups responsible for this decrease. These two groups are the Afrikaans-speaking female students and the Afrikaans-speaking female pupils. The Afrikaans-speaking males also tend to show this decrease, but it never reaches statistical significance.

When the three cards were taken in their order of ability to elicit achievement fantasy responses, (cards 1, 3 and 2, respectively), it became evident that in the case of the English-speaking Gentile and Jewish groups a significant drop in responses occurred between card 1 "2 Workers", on the one hand, and the last two cards on the other.

In contrast to the above findings the Afrikaans-speaking group showed this significant drop only between the second-last card ("Boy and Book") and the last card ("Farm Scene").

The "Farm Scene" card has never before been used in studies on achievement fantasy. However, in the present study it was found to be only very slightly inferior in eliciting achievement fantasy responses than card 3 "Boy and Book". In some instances these cards were even equal in this respect. It was therefore decided to retain the "Farm Scene" card in further calculations involving group comparisons in achievement fantasy.

Table/ ....

TABLE 2.h

COMPUTATION OF THE SIGNIFICANCE OF CHANGES AS REGARDS PRESENCE OR ABSENCE OF n ACHIEVEMENT BETWEEN CARD 1 "2 WORKERS" & CARD 2 "FARM SCENE"

(a)

- Gentile E-sp. Studs., male + Gentile E-sp. stud.s, fem. → Gentile E-sp.stud.s, m+f
- Gentile E-sp. pupils,male + Gentile E-sp. pupils,fem. → Gentile E-sp.pupils,m+f
- Gentile E-sp.stud.s, m+f + Gentile E-sp.pupils,m+f → Gentile E-sp. stud.s + pupils
- Jewish students, male + Jewish students, female → Jewish students, m+f
- Jewish pupils, male + Jewish pupils, female → Jewish pupils, m+f
- Jewish students, m+f + Jewish pupils, m+f → Jewish students + pupils
- Afrikaans-sp. stud.s, male + Afrikaans-sp. stud.s, fem. → Afrikaans-sp.stud.s,m+f
- Afrikaans-sp. pupils,male + Afrikaans-sp. pupils,fem. → Afrikaans-sp.pupils,m+f
- Afrikaans-sp.stud.s,m+f + Afrikaans-sp.pupils,m+f → Afrikaans-sp. stud.s + pupils
- Gentile E-sp. stud.s + pupils + Jewish students + pupils + Afrikaans-sp. stud.s + pupils → all Gentile + Jewish Ss.
- all Gentile + Jewish Ss. → Grand Total

Note: Where underlined, Card 2 "Farm Scene" always scored significantly less than card 1 "2 Workers"

Levels of Confidence (p):

10% = ——

5% & 2% = ——

1% = ——

0.1% = ——

(b) all males + all females → Grand Total

(c) all students + all pupils → Grand Total

TABLE 2.4 (continued)

COMPUTATION OF THE SIGNIFICANCE OF CHANGES AS REGARDS PRESENCE OR ABSENCE OF n ACHIEVEMENT BETWEEN CARD 1 "2 WORKERS" and CARD 3 "BOY & BOOK"

(a)

- Gentile E-sp. stud.s, male
- Gentile E-sp. stud.s, fem.
  → Gentile E-sp. stud.s, m+f
- Gentile E-sp. pupils, male
- Gentile E-sp. pupils, fem.
  → Gentile E-sp. pupils, m+f

→ Gentile E-sp. stud.s + pupils

- Jewish students, male
- Jewish students, female
  → Jewish students, m+f
- Jewish pupils, male
- Jewish pupils, female
  → Jewish pupils, m+f

→ Jewish students + pupils

→ all Gentile + Jewish Ss.

- Afrikaans-sp. stud.s, male
- Afrikaans-sp. stud.s, fem.
  → Afrikaans-sp. stud.s, m+f
- Afrikaans-sp. pupils, male
- Afrikaans-sp. pupils, fem.
  → Afrikaans-sp. pupils, m+f

→ Afrikaans-sp. stud.s + pupils

→ Grand Total

Note: Where underlined, card 3 "Boy and Book" always scored significantly less than card 1 "2 Workers".

Levels of confidence (p): 10% = ——— 5% & 2% = ═══ 1% = ═══ 0.1% = ═══

(b) all males, all females → Grand Total

(c) all students, all pupils → Grand Total

TABLE 2.h (continued)

COMPUTATION OF THE SIGNIFICANCE OF CHANGES AS REGARDS PRESENCE OR ABSENCE OF n ACHIEVEMENT BETWEEN CARD 2 "FARM SCENE" & CARD 3 "BOY & BOOK"

(a)

- Gentile E-sp. stud.s, male + Gentile E-sp. stud.s, fem. → Gentile E-sp. stud.s, m+f
- Gentile E-sp. pupils, male + Gentile E-sp. pupils, fem. → Gentile E-sp. pupils, m+f

→ Gentile E-sp. stud.s + pupils

- Jewish students, male + Jewish students, female → Jewish students, m+f
- Jewish pupils, male + Jewish pupils, female → Jewish pupils, m+f

→ Jewish students + pupils

→ all Gentile + Jewish Ss.

- Afrikaans-sp. stud.s, male + Afrikaans-sp. stud.s, fem. → Afrikaans-sp. stud.s, m+f
- Afrikaans-sp. pupils, male + Afrikaans-sp. pupils, fem. → Afrikaans-sp. pupils, m+f

→ Afrikaans-sp. stud.s + pupils

→ Grand Total

Note: Where underlined, card 2 "Farm Scene" always scored significantly less than card 3 "Boy and Book"

Levels of Confidence: (p)

10% = ——

5% & 2% = ═══

1% = ═══

0.1% = ═══

(b)

- all males
- all females

→ Grand Total

(c)

- all students
- all pupils

→ Grand Total

(d) Afrikaans males versus females: (students and pupils)

- all Afrikaans-sp. males
- all Afrikaans-sp. females

→ all Afrik.-sp.Ss.

2.6 Investigation of possible differences in achievement fantasy scores between the various groups due to certain cards. (Hypothesis B.1)

The three pictures which had been administered to every subject of the total sample differed significantly from one another as regards the amount of achievement fantasy elicited.

It was therefore thought necessary to use the three pictures singly as well as in all possible combinations when contrasting the achievement fantasy scores of the different groups. Only if significant differences found between any two groups persisted through all, or almost all, of these combinations could it be concluded with some measure of certainty that these differences were due to actual differences between the groups in question and not to spurious factors inherent in any one picture or combination of pictures.

The following seven independent investigations were carried out:

a. card 1 "Workers" only
b. card 2 "Farm Scene" only
c. card 3 "Boy and Book" only
d. card 1 plus card 2
e. card 1 plus card 3
f. card 2 plus card 3
g. card 1 plus card 2 plus card 3

As stated previously, the final achievement fantasy score for every individual was arrived at by summing the n Achievement scores (if any), and dividing the total by the number of cards used. In this way the results of different card combinations could be compared directly. Table 20 shows the average achievement fantasy scores for all the various groups investigated.

Taking/ ....

Taking each one of these seven combinations in turn, the respective total average score of every subject was either classed "minus" (if the score was negative or zero), or "plus" if there had been a positive score, irrespective of its magnitude. The results for all cards, singly and in combination, for the three main cultural groups are shown in the graphs overleaf.

Perusal of the first graph shows that card 1 "2 Barbara" is far superior to the other two cards in its ability to elicit achievement fantasy from the total sample.

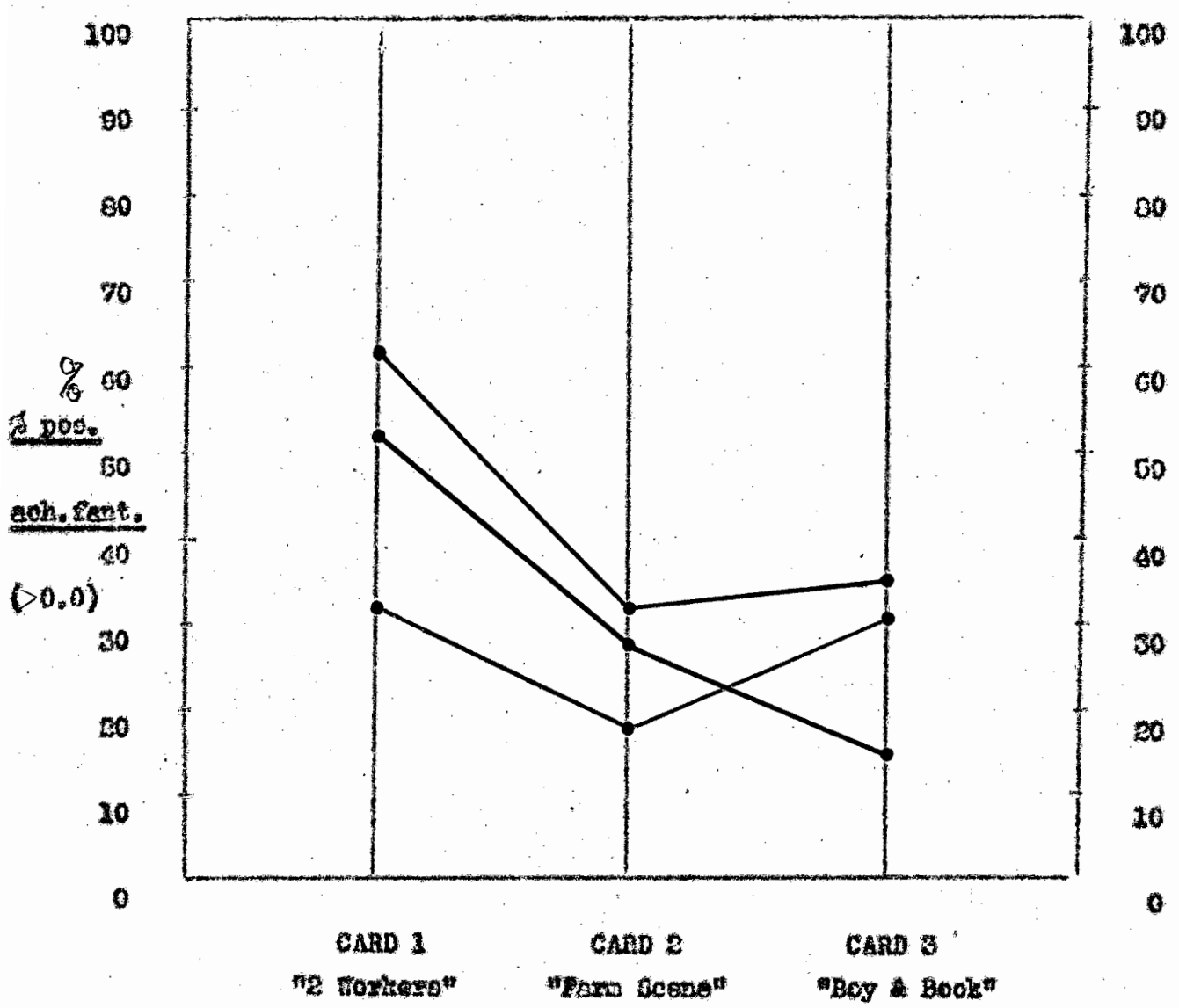
Comparison of card 2 "Farm Scene" with card 3 "Boy and Book" shows that the English-speaking Gentile sample scores slightly higher on the "Boy and Book" card. The Jewish group shows the opposite trend, but for both groups this does not reach statistical significance. On the other hand, the Afrikaans-speaking group shows a statistically significant gain from card 2 to card 3.

Inspection of the second graph shows that the different groups retain their relative distances towards one another consistently throughout all combinations of cards, except for the Jewish group. In the combination of cards 2 and 3 there is a noticeable drop in the average total score of the latter group, which even decreases below the score of the Afrikaans-speaking subjects. Apart from this, however, it is clear that the differences between the groups tend to be consistent, irrespective of the cards used.

Graph/ ....

Graph 2.i

The percentage of positive achievement fantasy scores elicited by three single cards



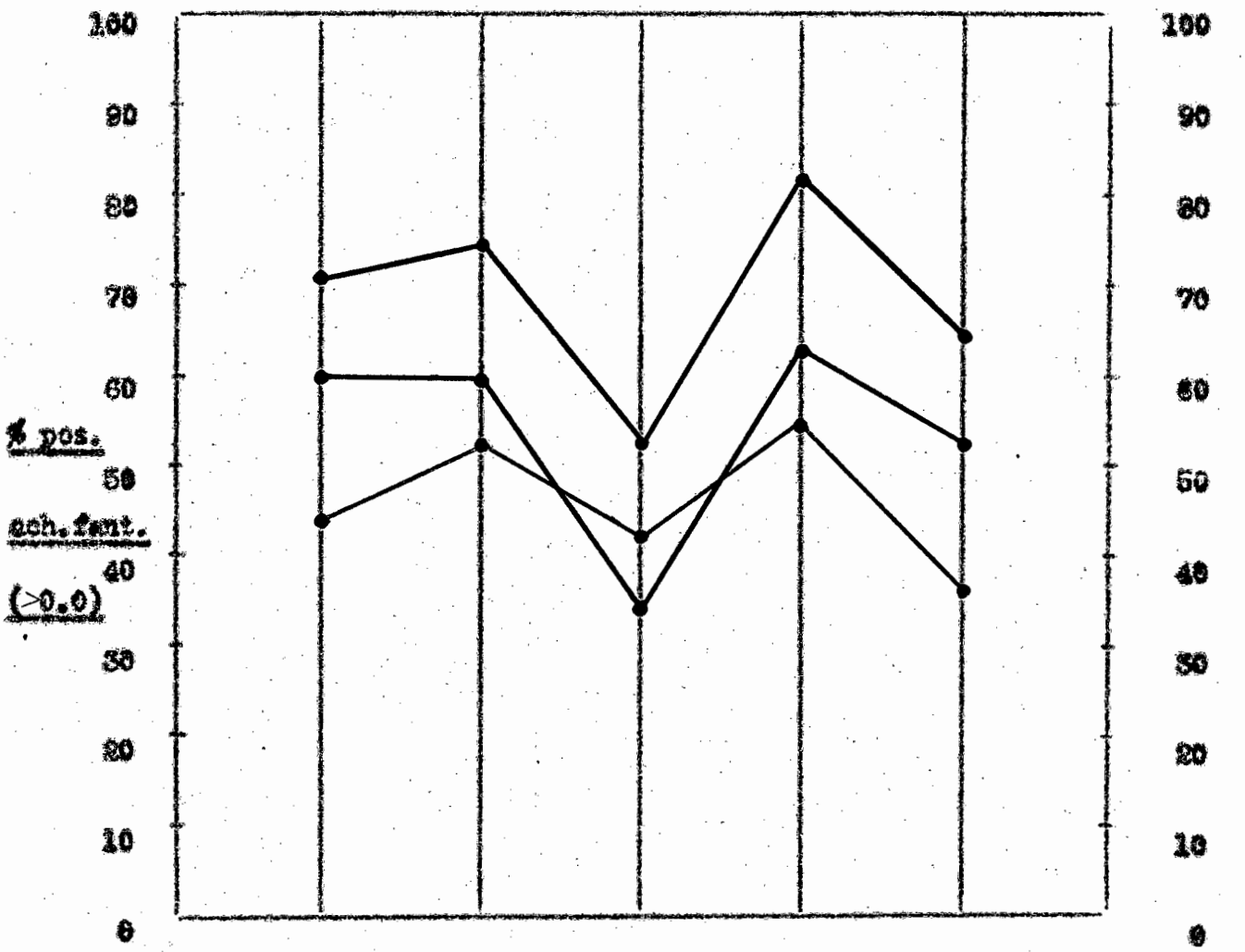
all English-sp. Gentile Ss.: ———

all Jewish Ss.: ———————

all Afrik. Ss.: ———————

Graph 2.k

The percentage of positive achievement fantasy scores elicited by the cards in various combinations



2W = card "2 Workers"
F3c = card "Farm Scene"
B+B = card "Boy & Book"

all English-sp. Gentile Ss.: ———
all Jewish Ss.: ———————
all Afrik. Ss.: ———————

Graph 2.1

Mean achievement fantasy scores for the various groups investigated

	males	fem.	total
1. Gentile English-sp. arts students	2.90	2.51	2.64
2. Gentile English-sp. science students	1.86	-	1.86
3. Gentile English-sp. pupils	1.62	1.74	1.67
4. Jewish arts students	1.60	1.85	1.72
5. Jewish science students	1.10	-	1.10
6. Jewish pupils	1.30	1.09	1.22
7. English-speaking (unidentified)	++	2.06	2.06
8. Afrikaans-speaking arts students	0.80	1.26	1.06
9. Afrikaans-speaking science students	0.86	1.86	1.12
10. Afrikaans-speaking pupils	0.70	1.86	1.30
11. German-speaking pupils	1.02	-	1.02
TOTAL OF ALL GROUPS:	1.35	1.74	1.54

++ n = 2 only

TABLE 2.m

DICHOTOMIZATION OF n ACHIEVEMENT SCORES FOR THE X^2 - ANALYSIS

(- = all negative and zero n Ach scores)
(+ = all positive n Ach scores)

	card 1 (2 Workers)		card 2 (Farm Scene)		card 3 (Boy & Book)		average of card 1 and 2		average of card 1 and 3		average of card 2 and 3		average of card 1+2+3	
	n Ach -	n Ach +	n Ach -	n Ach +	n Ach -	n Ach +	n Ach -	n Ach +	n Ach -	n Ach +	n Ach -	n Ach +	n Ach -	n Ach +
1. Gentile English-speaking male arts students	4	21	14	11	16	9	2	23	1	24	10	15	1	24
2. Gentile English-speaking male science students	12	16	18	10	18	10	9	19	6	22	11	17	4	24
3. Gentile English-speaking female arts students	12	39	37	14	34	17	8	43	9	42	26	25	7	44
4. Gentile English-speaking male pupils	30	24	39	15	35	19	25	29	20	34	28	26	17	37
5. Gentile English-speaking female pupils	19	22	28	13	28	13	12	29	14	27	18	23	8	33
6. Jewish male arts students	2	3	4	1	4	1	1	4	2	3	3	2	1	4
7. Jewish male science students	3	2	3	2	4	1	2	3	3	2	3	2	2	3
8. Jewish female arts students	8	16	14	10	20	4	7	17	5	19	11	13	5	19
9. Jewish male pupils	23	22	22*	3*	36	9	12*	13*	19	26	17*	8*	10*	15*
10. Jewish female pupils	17	11	11*	5*	23	5	8*	8*	13	15	14*	2*	7*	9*
11. Gentile or Jewish (?) male arts students	1	1	2	0	1	1	1	1	1	1	1	1	1	1
12. Gentile or Jewish (?) male science students	0	2	1	1	0	2	0	2	0	2	0	2	0	2
13. Gentile or Jewish (?) female arts students	7	11	10	8	11	7	6	12	5	13	7	11	5	13
14. Afrikaans-speaking male arts students	45	14	48	11	43	16	38	21	33	26	36	23	30	29
15. Afrikaans-speaking male science students	24	12	25	11	25	11	19	17	20	16	17	19	22	14
16. Afrikaans-speaking female arts students	43	31	65	9	53	21	39	35	33	41	48	26	33	41
17. Afrikaans-speaking female science students	2	4	6	0	5	1	2	4	2	4	5	1	2	4
18. Afrikaans-speaking male pupils	28	7	27	8	26	9	24	11	20	15	19	16	17	18
19. Afrikaans-speaking female pupils	20	17	30	7	19	18	18	19	13	24	16	21	11	26

* some Herzlia subjects were not given card 2 "Farm Scene"

The average total score of all three cards yielded the maximal separation of groups. For this reason it was decided to use this combination in all further calculations. Apart from the good separation achieved, it was obviously preferable to use the maximum number of cards available, because, through their greater variety in subject matter, they would tend to tap more achievement fantasy in any one subject than a lesser number of cards.

2.6 Average total score of all three cards: decision to alter the cut-off point for dichotomization

Once the decision had been made to use the average total achievement fantasy score of all three cards combined, it was deemed advisable to shift the cut-off point for the "highs" as against the "lows" on achievement fantasy nearer to the median of the total group. Inspection of graph 2.k shows that the percentage of positive scores ranged from 53.4% for the Afrikaans-speaking group to 81.4% for the English-speaking Gentile subjects. This range is clearly situated too near to the top of the scale. A more satisfactory dichotomization was obtained when achievement fantasy scores up to, and including +1.00 were included with the "low" scores.

Table 2.n Changes in percentages of positive achievement fantasy scores by altering the cut-off point for dichotomization

SUBGROUPS	% of "highs"	
	>0.00	>1.00
a) all students	66.3%	52.5%
b) all pupils	66.4%	50.5%
c) all males	62.0%	46.2%
d) all females	70.8%	55.4%
e) all arts faculty students	67.8%	53.5%
f) all science faculty students	61.0%	49.4%
g) all English-speaking gentile subjects	81.4%	66.8%
h) all English-speaking Jewish subjects	66.7%	53.3%
i) all Afrikaans-speaking subjects	53.4%	38.5%

CHAPTER XII

Calculation of the significance of differences between various combinations of groups

CHAPTER III

Calculation of the significance of differences between various combinations of groups

All the groups which constitute the total sample were paired off in meaningful combinations. Their frequencies of positive and negative achievement fantasy scores were contrasted by means of the X^2-test and the significance of the differences was established.

The following group comparisons were made:-

3.1 all students (n=335) with all pupils (n=240),
3.2 all males with all females (n= 296 and 279, resp.),
3.3 all arts faculty students with all science faculty students (n = 195 and 64, resp.),
3.4 all English-speaking Gentile subjects with all Afrikaans-speaking subjects (n = 199 and 247, resp.),
3.5 all English-speaking Gentile subjects with all English-speaking Jewish subjects (n = 109 and 107, resp.),
3.6 all English-speaking Jewish subjects with all Afrikaans-speaking subjects (n = 107 and 247, resp.),
3.7 all English-speaking subjects (Gentile and Jewish) with all Afrikaans-speaking subjects (n = 323 and 247, resp.),
3.8 all Gentile subjects (English- and Afrikaans-speaking) with all Jewish subjects (n = 446 and 107, resp.).

Although it had been established that the most accurate X^2-comparisons would be those where the average total score of all three cards had been dichotomised so that achievement fantasy scores of +1.00 still fell into the "low" category, it was thought expedient not only to carry out the X^2-tests for this particular dichotomisation and combination of cards, but for all other cards, singly and in combination as well. This was done to check that any significant differences found between groups were due to real differences in achievement fantasy between them, and less due to the specific cue value of different cards.

The results/...

The results of these findings for all cards, singly and in combination, which had been dichotomized into "highs" and "lows" at the mean achievement fantasy score are presented in Table 3.b. A more detailed table for the average total score of all three cards with the "high-low" cut-off point at the score of +1.00 (henceforth called "finalized dichotomization") is given below.

Table 3.a Average total scores of all three cards with "finalized" dichotomization

	<1.0	>1.0	%>1	X^2	p
1. all students	159	176	52%	<2	N.S.
2. all pupils	103	105	51%		
3. all males	143	133	48%	3.3	<.10
4. all females	119	148	55%		
5. all arts faculty students	120	138	54%	< 2	N.S.
6. all science faculty students	39	38	49%		
7. all English-sp. Gentile subjects	66	133	67%	34.4	<.001
8. all Afrikaans-sp. subjects	152	95	39%		
9. all English-sp. Gentile subjects	66	133	67%	3.7	<.10
10. all English-speaking Jewish subjects	35	40	53%		
11. all English-speaking Jewish subjects	35	40	53%	4.7	<.05
12. all Afrikaans-speaking subjects	152	95	39%		
13. all Engl.-sp. subjects (Gentile & J.)	110	186	63%	18.9	<.001
14. all Afrikaans-speaking subjects	152	95	39%		
15. all Gentile Ss. (Engl.& Afrik.-sp.)	218	228	51%		
16. all Jewish subjects	35	40	53%	< 2	N.S.

In order to show any consistency in the presence of significant differences between the various card combinations, the following graphs were drawn for each one of the different group comparisons:

Table 3.b/...

Table 3.b

[redacted] Significance of the differences between various groups for all card combinations (nAch for dichotomization at zero

		all students (a) vs. all pupils (b)	all males (a) vs. all females (b)	all Engl.-sp. (Gent.& Jew.) (a) vs. all Afrikaans-sp.(b)	all Jewish Ss. (a) vs. all Gentile E.-sp. Ss. (b)	all Jewish Ss. (a) vs. all Afrikaans-sp. Ss. (b)	all arts studs. (a) vs. all science studs. (b)	all Gentile Engl. speak.(g)Ss. vs. all Afrikaans-sp. Ss. (b)	all Gentiles (E.& Afr.)(a) vs. all Jewish Ss. (b)
Card 1 "2 Workers"	% nAch$^+$a	51.3%	41.9%	57.9%	50.5%	50.5%	43.8%	61.3%	46.4%
	% nAch$^+$b	42.9%	54.1%	34.4%	61.3%	34.4%	46.7%	34.4%	50.5%
	X^2	3.98	8.61	31.22	3.35	8.07	2	32.05	2
	p	.05	.01	.001	.10	.01	N.S.	.001	N.S.
Card 2 "Farm Scene"	% nAch$^+$(a)	26.3%	26.5%	31.4%	28.0%	28.0%	24.6%	31.7%	24.4%
	% nAch$^+$(b)	24.5%	24.7%	18.6%	31.7%	18.6%	30.7%	18.6%	28.0%
	X^2	2	2	11.57	2	3.07	2	10.14	2
	p	N.S.	N.S.	.001	N.S.	.10	N.S.	.01	N.S.
Card 3 "Boy and Book"	%nAch$^+$(a)	30.2%	29.7%	29.9%	18.7%	18.7%	29.5%	32.2%	32.2%
	%nAch$^+$(b)	30.4%	30.8%	30.8%	34.17%	30.8%	32.5%	30.8%	18.7%
	X^2	2	2	2	8.14	5.51	2	2	7.65
	p	N.S.	N.S.	N.S.	.01	.02	N.S.	N.S.	.01
Average of cards 1 and 2	%nAch$^+$(a)	60.0%	51.8%	68.6%	60.0%	60.0%	60.5%	71.9%	56.1%
	%nAch$^+$(b)	52.4%	62.6%	43.3%	71.9%	43.3%	58.4%	43.3%	60.0%
	X^2	3.02	6.38	35.07	3.56	6.42	2	36.45	2
	p	.10	.02	.001	.10	.02	N.S.	.001	N.S.
Average of cards 1 and 3	%nAch$^+$(a)	61%	58%	70%	60%	60%	65%	74%	61%
	%nAch$^+$(b)	58%	66%	51%	74%	51%	60%	51%	60%
	X^2	2	2	21.09	7.46	2.33	2	26.54	2
	p	N.S.	N.S.	.001	.01	N.S.	N.S.	.001	N.S.
Average of cards 2 and 3	%nAch$^+$(a)	46.9%	47.5%	49.7%	36.0%	36.0%	45.0%	53.3%	47.5%
	%nAch$^+$(b)	46.2%	45.7%	42.9%	53.3%	42.9%	53.2%	42.9%	36.0%
	X^2	2	2	2.46	6.50	2	2	4.74	3.44
	p	N.S.	N.S.	N.S.	.02	N.S.	N.S.	.05	.10
Average of card 1 + 2 + 3	%nAch$^+$(a)	66.3%	62.0%	77.0%	66.7%	66.7%	67.8%	81.4%	65.9%
	%nAch$^+$(b)	66.4%	70.8%	53.4%	81.4%	53.4%	61.0%	53.4%	66.7%
	X^2	2	4.74	33.52	6.76	4.09	2	38.37	2
	p	N.S.	.05	.001	.01	.05	N.S.	.001	N.S.

3.1 Comparison between all students and all pupils

(Hypothesis B.2)

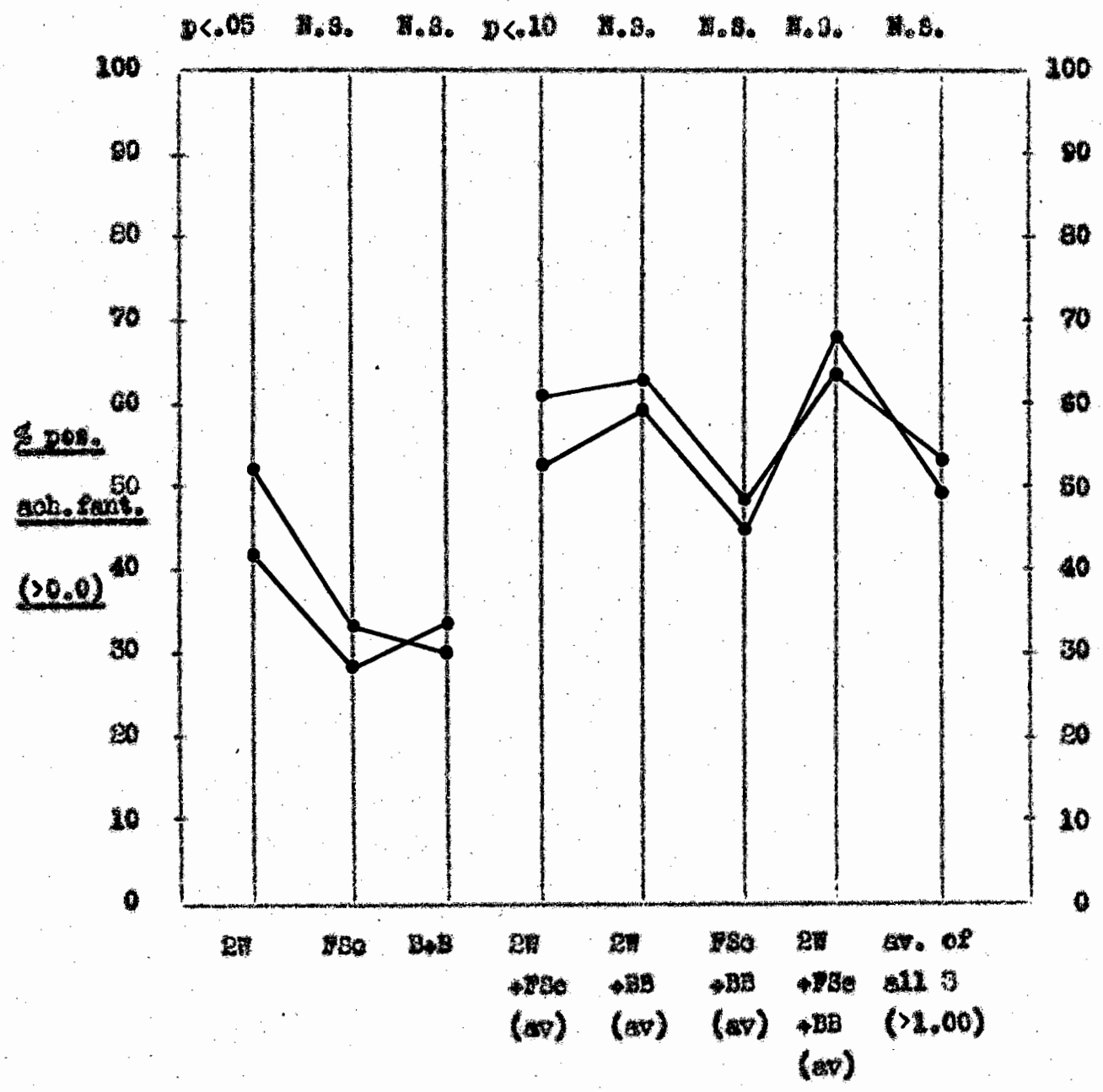
Inspection of graph 3.c overleaf shows that there is little difference between the scores of students and pupils, except for the card "2 Workers". Here the students achieve a significantly higher score ($p < .05$), but this does not hold for the average total scores when all three cards are combined.

No differentiation need therefore be made between students and pupils when contrasting the different cultural groups.

Graph 3.c/...

Graph 3.c

Comparison of all students with all pupils



cards

2W = card "2 Workers"
FSc = card "Farm Scene"
B+B = card "Boy & Book"

students: ————

pupils: ————

3.2 Comparison of all male subjects with all female subjects
(Hypothesis B.3)

When looking at graph 3.d overleaf, a slight but significant difference between these two groups is noticeable when the average scores of all three cards are taken. The obtained value ($p < .05$), however, becomes $< .10$ when the "finalized" dichotomisation is used. This significant difference is entirely due to the fact that the females score significantly higher ($p < .01$) on card 1 "2 Workers".

A detailed study of every group's "high" and "low" achievement fantasy scores on card 1, reveals that this is entirely due to the Afrikaans-speaking subjects, both pupils and students. There are no significant differences between the scores of the males and the females of any other cultural group, although a certain trend in the same direction as that of the Afrikaans-speaking group does exist.

For these reasons a separate graph for Afrikaans-speaking males and females only was drawn, as here the males (n=130) obtained 25.4% of the positive achievement fantasy scores while the females (n=117) obtained as much as 44.4% on card 1. This difference is significant at the 1% - level of confidence.

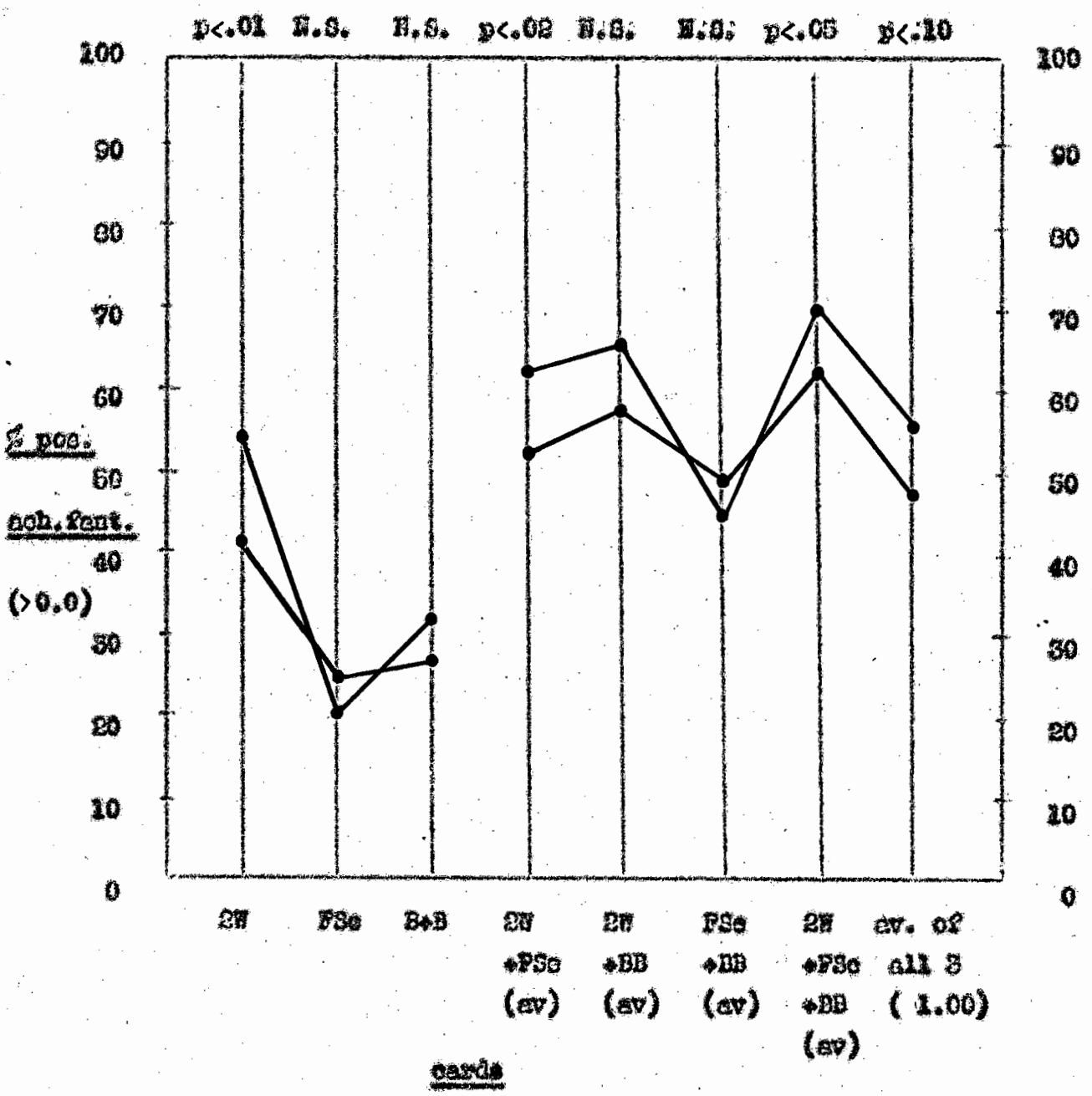
Graph 3.e shows that the trend for Afrikaans-speaking females to score significantly higher on card 1 is reversed on card 2, "Farm Scene". In the end result, the females in the Afrikaans-speaking group are, however, still significantly ahead before the "finalised dichotomisation" is introduced; when this happens, the difference is no longer statistically significant.

On the whole the male-female differences are small enough as compared to the other group differences, so that they can be combined for future calculations, as long as further analysis of the various sub-groups takes place whenever a significant difference is found.

Graph 3.d/...

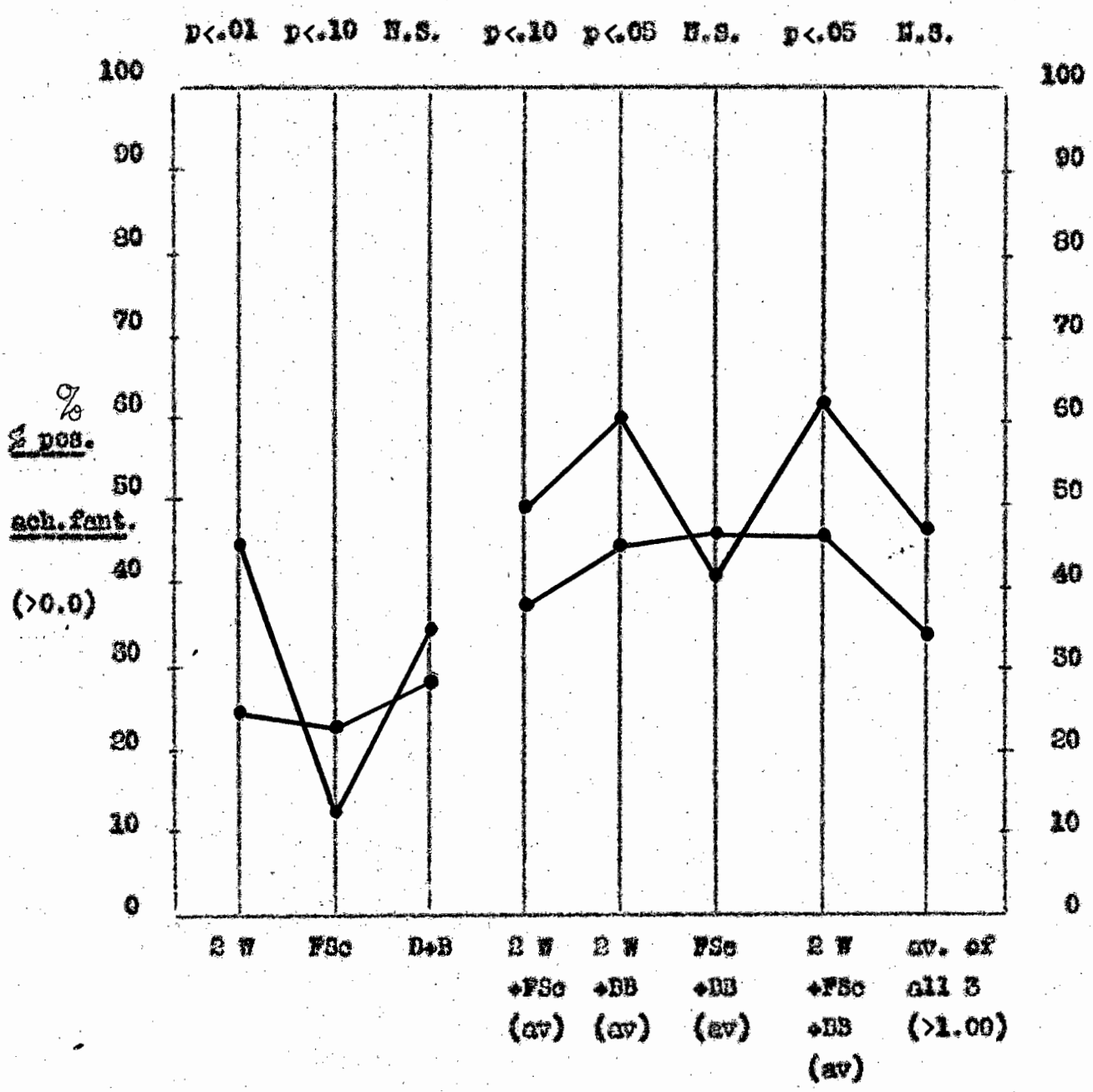
Graph 3.d

Comparison of all male subjects with all female subjects



Graph 3.c

Afrikaans-speaking males compared with Afrikaans-speaking females



3.3 Comparison of all arts faculty students with all science faculty students (Hypothesis B.4)

No significant differences occur anymore between the two student groups in question and they can therefore be used in combination for the further study of differences between various groups; (see graph 3.f overleaf.)

3.4 - 3.6 In the foregoing investigations it has been established that the differences in achievement fantasy scores between students and pupils, between males and females, as well as between arts faculty and science faculty students were insignificant or very small. It was therefore now possible to tackle the main question: Are there any significant differences in achievement fantasy between these three different cultural groups tested?

Three distinct groups had been tested:

1. An English-speaking Gentile group composed of subjects from the University of Cape Town and from Westerford High School as well as a few from Stellenbosch University.

2. An English-speaking Jewish group, also from the University of Cape Town, from Herzlia High School, and a few from Westerford High School.

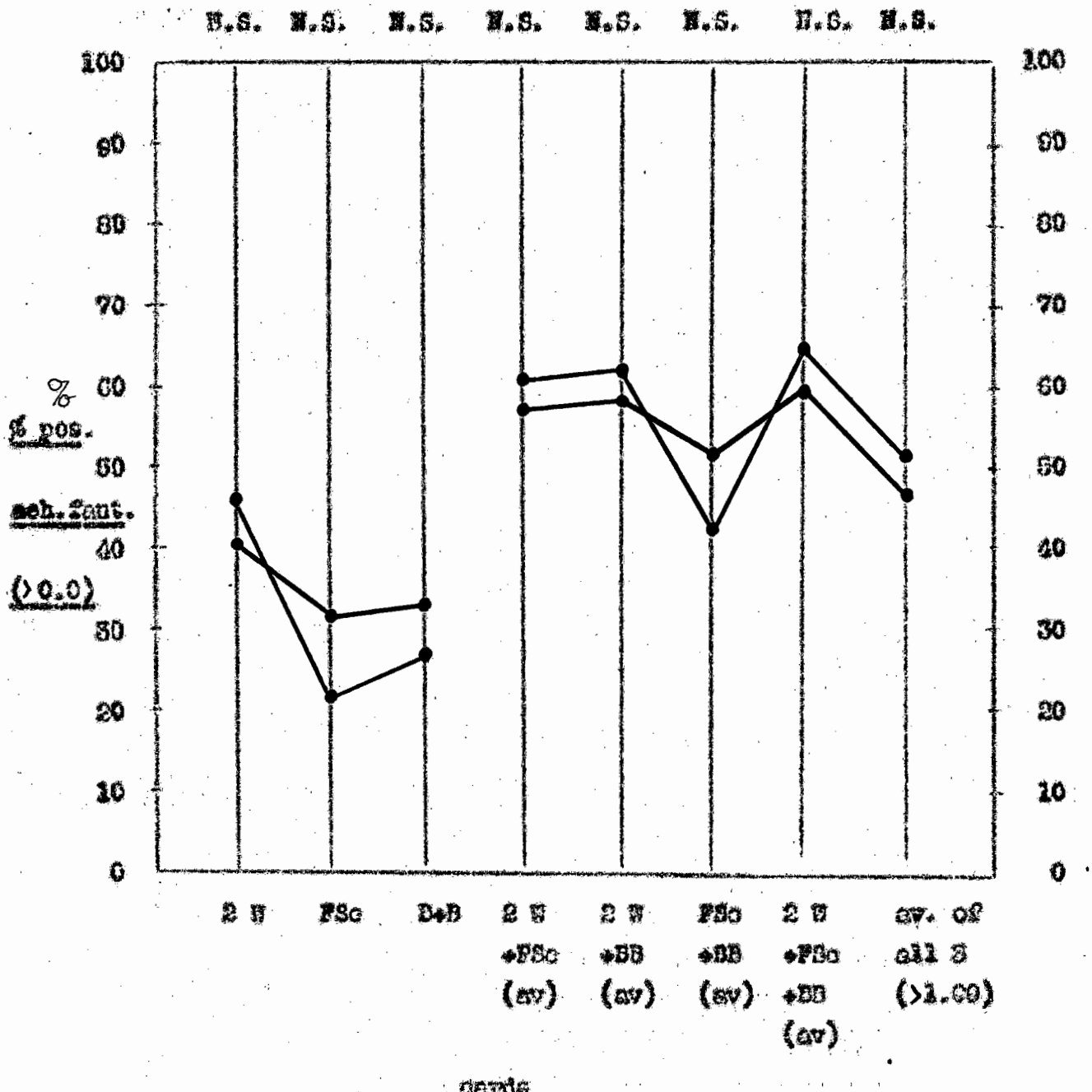
3. An Afrikaans-speaking group from the University of Stellenbosch and from Bellville High School.

On the following pages these three groups were contrasted, singly and in logical combinations, with one another as regards their achievement fantasy scores.

Graph 3.f/ ....

Graph 3.f

Comparison of all arts faculty students with all science faculty students



2 W = card "2 Workers"
FSc = card "Farm Scene"
B+B = card "Boy & Book"

all arts faculty students: ————————

all science faculty students: ————————

3.4 Comparison of all English-speaking Gentile subjects with all Afrikaans-speaking subjects

Inspection of graph 3.g overleaf clearly shows that the English-speaking Gentile subjects score very significantly higher than the Afrikaans-speaking group ($p<.001$, $\chi^2 = 34.6$).

This end result is, however, only due to the first two cards; scores on card 3 "Boy and Book" do not differentiate significantly between the two groups. Further analysis of the individual contributions made by the various subgroups to card 3 show that no significant differences appear anywhere, although the general trend is analogous to the findings and trends of the first two cards. There is only one exception: English-speaking Gentile female pupils averaged 31.7% in positive achievement fantasy scores on card 3, whereas the Afrikaans-speaking female pupils attained 48.6%. But this difference is not statistically significant.

There is a highly significant tendency for the English-speaking Gentile sample to obtain higher achievement fantasy scores on cards 1 and 2 ($p_1<.001$ and $p_2<.01$). A combination of these two cards raises the χ^2 - value to 36.65. When the less-discriminating card 3 "Boy and Book" is added to the first card, the χ^2 - value still attains a value of 26.30.

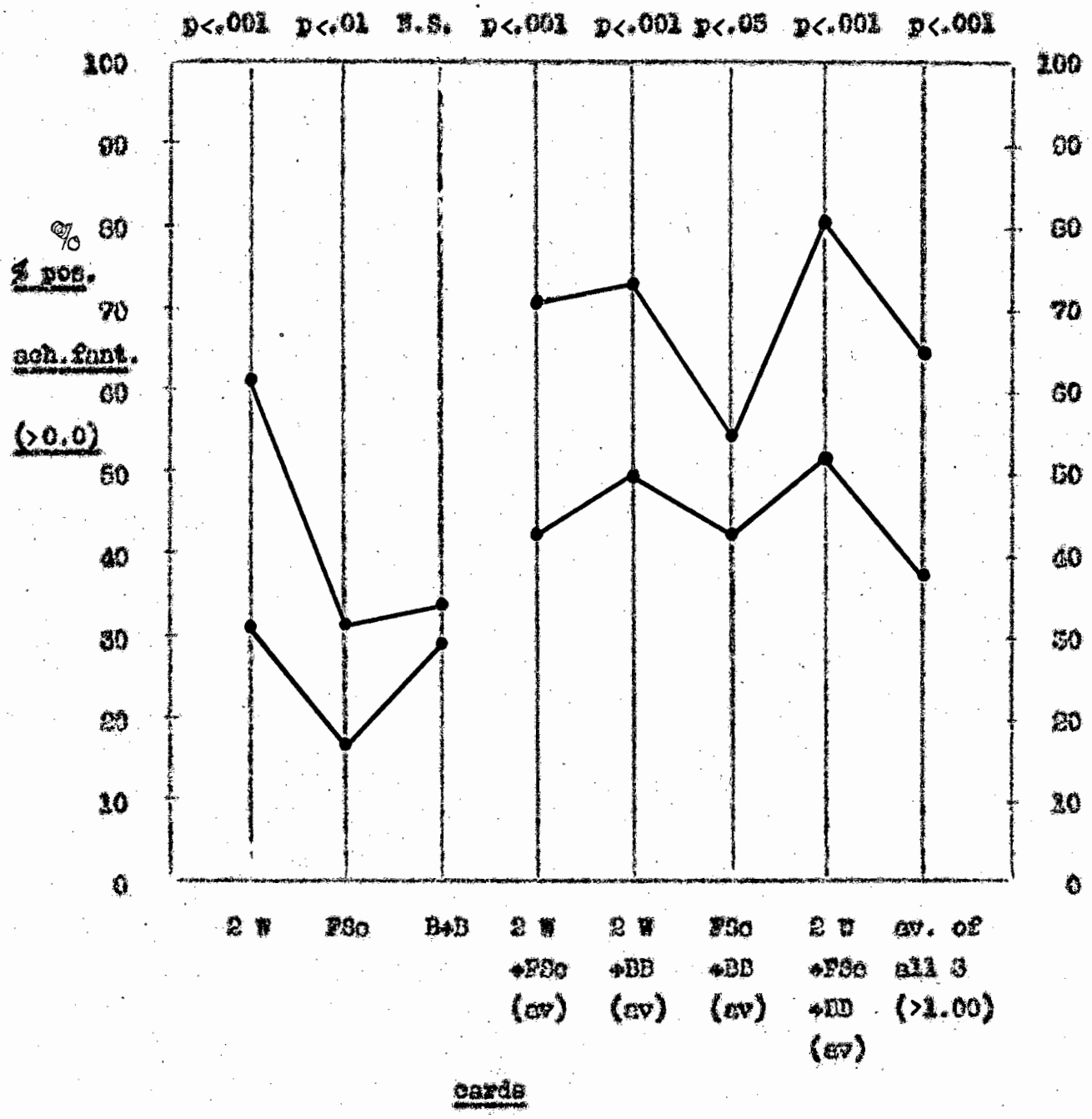
The drop in the χ^2 - value to the amount of 4.74 ($p<.05$) was to be expected when combining cards 2 and 3, but the previous high value is exceeded when all three cards are combined; ($\chi^2 = 38.37$, $p<.001$). Finalised dichotomisation (at the achievement fantasy score of +1.00) causes the χ^2 - value to decrease slightly to 34.38, which is, however, still very high.

It can therefore be concluded that the English-speaking Gentile group obtained consistently and very significantly higher achievement fantasy scores than the Afrikaans-speaking subjects.

Graph 3.g/ ....

Graph 3.g

All English-speaking Gentile Subjects versus all Afrikaans-speaking Subjects



2 W = card "2 Workers"
FSc = card "Farm Scene"
B+B = card "Boy & Book"

Gentile English-sp. Ss.: ————

Afrikaans-sp. Ss.: ————

3.6 Comparison of all English-speaking Gentile subjects with all English-speaking Jewish subjects (Hypothesis B.5)

Inspection of graph 6.h shows that the curves are similar except for the fact that the Jewish group's curve always occupies a lower original position, and, with only one exception, always significantly so, (including the 10%-level of confidence). For a more detailed analysis the different subgroups were contrasted with one another, yielding the following results:

There is only one subgroup comparison where the difference becomes statistically significant, taking card 1 "2 Workers" singly. This is the comparison of all Gentile females with all Jewish females. But even here the X^2 obtained only amounts to 2.80 ($p<.10$), which is very low.

Scores of the other subgroups, however, also show this tendency to a lesser degree, with the result that when all subgroups are combined, a low, but significant, difference does emerge; ($X^2 = 3.35$, $p<.10$).

It has already been commented on the decrease of positive achievement fantasy scores in the Jewish sample between card 2 and card 3.

There is a significant difference, ($X^2 = 6.14$, $p<.01$), between the low scores of the Jewish sample on card 3 "Day and Book" and the corresponding scores of the English-speaking Gentile group. Further breakdown shows that this significant difference is caused by males and females, by students and pupils alike, although the X^2 - value of 4.37 ($p<.05$) is never exceeded by any one subgroup taken singly.

Further/ ...

Further comparisons between the two groups showed changing p - values as different card combinations were investigated. As one might expect, any combination using card 3 gave a higher X^2 - value and therefore more significant differences between the two groups.

It was interesting to see how the p - value changed for the average total score of all three cards when the point of dichotomization was shifted from a score of 0.00 to that of 1.00. The X^2 - value now decreased from 6.76 ($p<.01$) to 3.71 ($p<.10$).

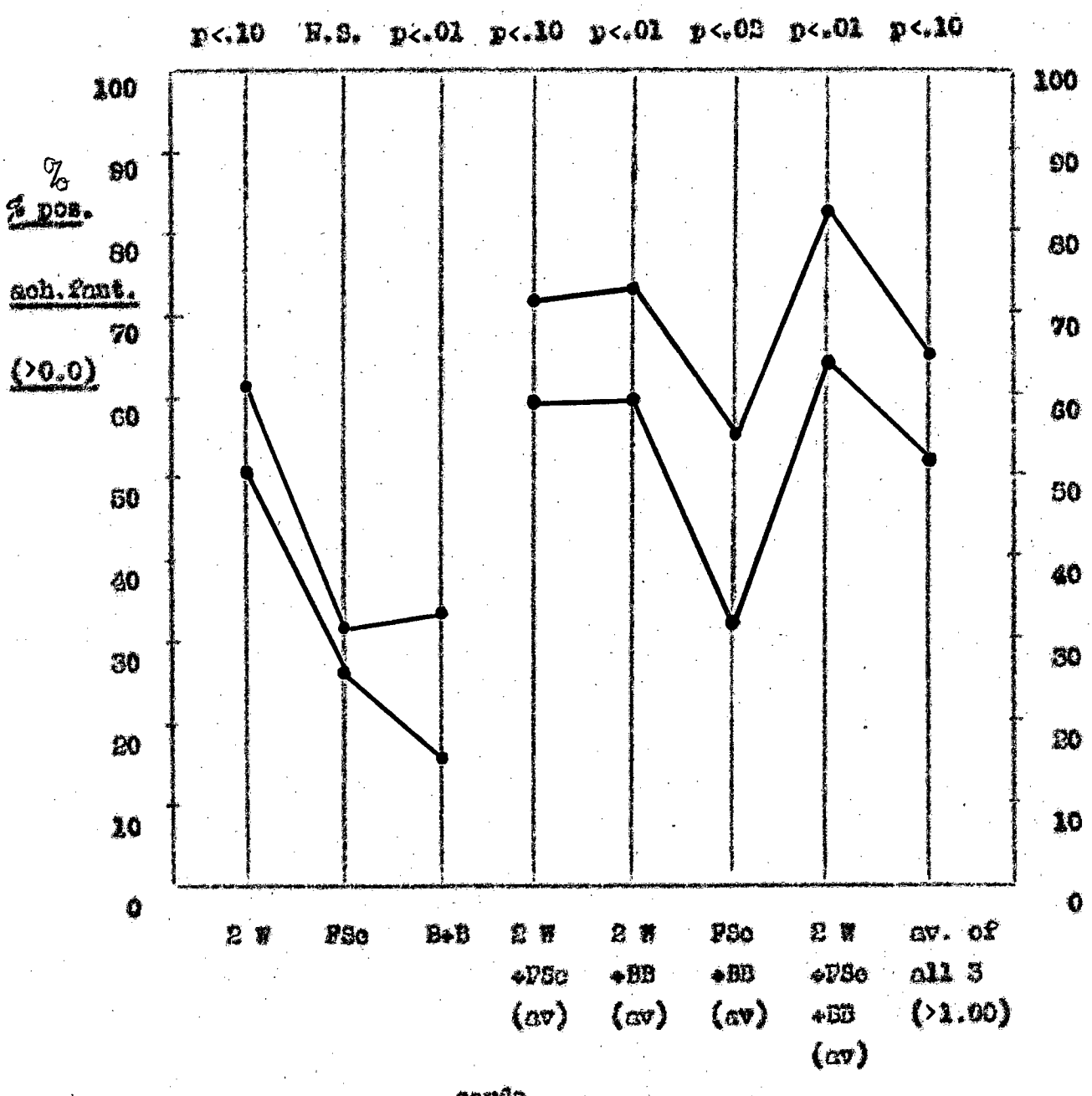
This drop is evident in all other comparisons between the different cultural groups as well. It results from the diminution of extreme values in the 2 x 2 contingency tables, caused by dichotomization nearer the median. Although the obtained X^2 - values is thus decreased, a more accurate measure of the significance of the differences between the various was hereby obtained; (see McNemar, 1949, p. 358).

It can thus be concluded that the English-speaking Jewish sample is far nearer to the Gentile English-speaking subjects than to the Afrikaans group, as regards achievement fantasy scores. Although significant differences do exist between the two English-speaking groups, they tend to be small, and, in the final calculation ("finalized dichotomization") they were not significant on the 5% - level anymore.

Graph 5.b/ ....

Graph 3.h

All English-speaking Gentile Subjects versus
all English-speaking Jewish Subjects



2 W = card "2 Workers"
FSo = card "Farm Scene"
B+B = card "Boy & Book"

English-sp. Gentile Ss.: ————
English-sp. Jewish Ss.: ————

3.6 Comparison of all English-speaking Jewish subjects with all Afrikaans-speaking subjects

When looking at graph 3.4 overleaf, it is clear that card 1 elicits significantly more achievement fantasy responses ($p < .01$) from the Jewish group; and this trend is also evident (but much reduced) when viewing the results for card 2. Further analysis shows that all subgroups contributed equally to the highly significant difference obtained for card 1, whereas it is entirely due to the females that a small but significant difference is found between the two groups for card 2. Here the Jewish females attain an achievement fantasy score of 37.5% as opposed to the 13.7% of the Afrikaans-speaking females. With the males this trend is reversed (17.1% against 25.1%, respectively), but not significantly so.

Graph 3.4 also shows that card 3 is superior to card 2 in eliciting achievement fantasy responses for the Afrikaans-speaking group and inferior as regards the Jewish group. This reversal of the trend set by the first two cards, is again due to the female subgroups only.

Whereas the Jewish females score 17.3% positive achievement fantasy scores on this card, the Afrikaans-speaking females attain 34.2%; ($X^2 = 4.19$, $p < .05$). This trend is evident among the males also, but is not statistically significant. A X^2 - value of 5.51 is obtained when all sexes are combined; ($p < .02$).

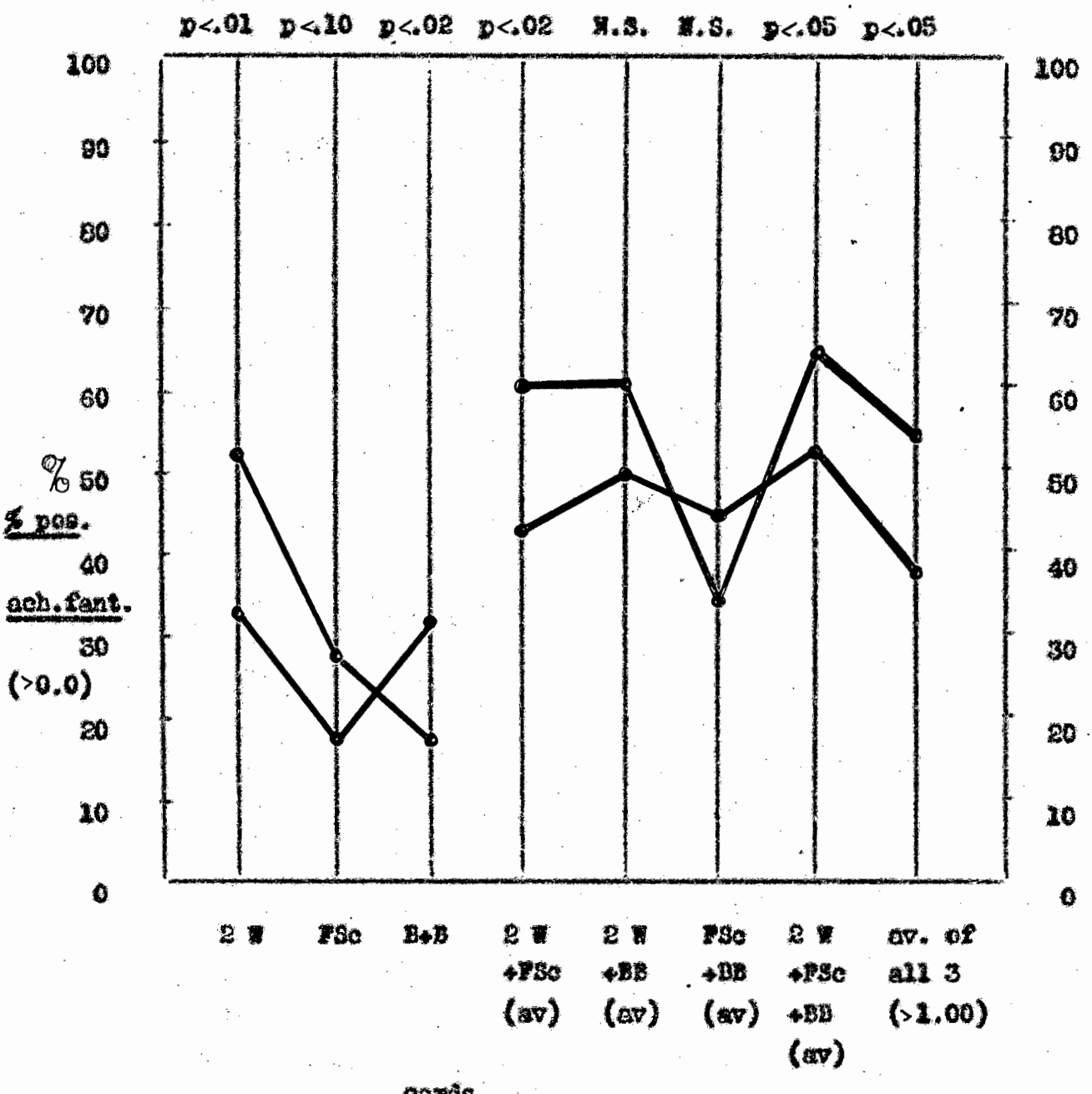
When the cards are views in combination it becomes evident that the trend for the Jewish group to attain higher achievement fantasy scores, predominates in spite of the reversal for card 3.

In the "finalized dichotomisation", the Jewish group maintains its lead ($X^2 = 4.63$, $p < .05$). This result is mainly due to the students; the Jewish pupils do not differ significantly from the Afrikaans-speaking pupils.

Graph 3.4/ ...

Graph 3.1

All English-speaking Jewish Subjects versus all Afrikaans-speaking Subjects



English-sp. Jewish Ss.: _____

Afrikaans-sp. Ss.: _____

3.7 Comparison of all English-speaking subjects (Gentile and Jewish) with all Afrikaans-speaking subjects (Hypothesis B.6)

The English-speaking Gentile and Jewish groups are much alike in the form of their respective graphs, as evidenced in graph 3.h, except that Jews tend to obtain lower ordinal positions throughout. A graph obtained by averaging the scores of both groups will therefore resemble the two curves, and tend to lie midway between them as regards the position on the ordinate.

It can therefore be expected that the differences between these two groups combined and the Afrikaans-speaking subjects will be somewhat smaller than for the Gentile English-speaking subjects alone, and, conversely, larger than in a comparison with Jews only. This is indeed the case, as evidenced in graph 3.j overleaf.

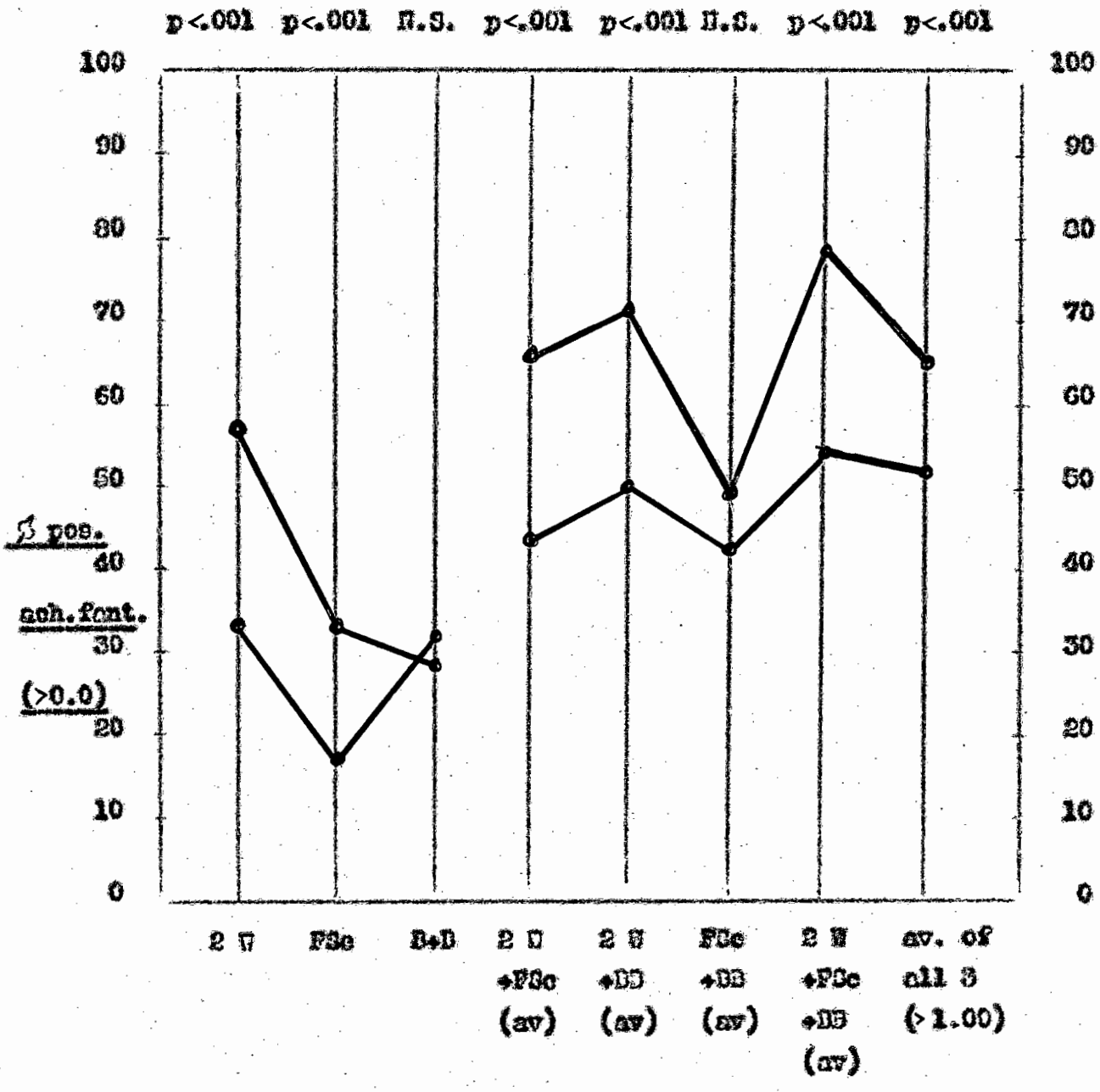
Here, the same pattern as in graphs 3.h and 3.i is evident, with card 3 "Boy and Book" still not differentiating significantly between the English- and the Afrikaans-speaking groups.

The "finalised dichotomisation" again shows a highly significant difference between the two groups ($\chi^2 = 18.85$, $p < .001$), towards which all subgroups contribute fairly equally.

Graph 3.j/...

Graph 3.1

All English-speaking Subjects (Gentile and Jewish) versus all Afrikaans-speaking Subjects



2 W = card " 2 Workers"
F3c = card "Farm Scene"
B+B = card "Boy & Book"

All English-sp. Ss. (Gent. & Jewish): _____

All Afrikaans-sp. Ss.: _____

3.8 <u>All Gentiles (English- and Afrikaans-speaking) compared with all Jewish subjects</u>

There is little difference between the average total achievement fantasy score of the above two groups, as can be seen on graph 3.k overleaf. This is due to the fact that the achievement fantasy scores of the Jewish group tended to lie midway between those of the Afrikaans- and the English-speaking Gentile groups.

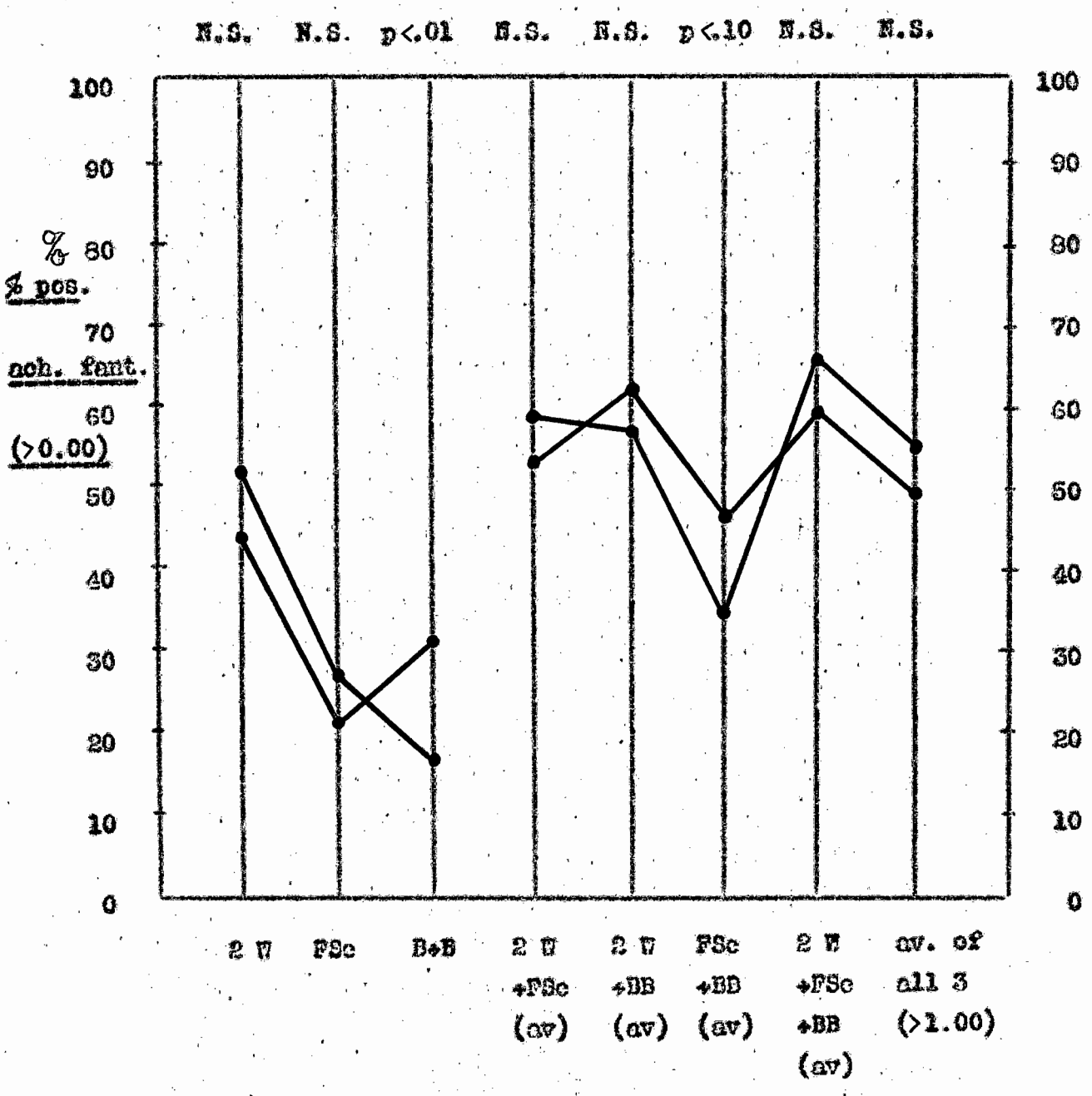
The only significant differences obtained were in respect to the single card 3 "Boy and Book" and the card combination "Farm Scene" plus "Boy and Book". This is due to the fact that the Jewish group shows a large decrease in achievement fantasy responses on card 3 as opposed to the other two cards, a fact which has been mentioned previously.

The difference between the two groups with regards to the average of all three cards with "finalized dichotomization", is not significant, as the percentages of positive achievement fantasy are very close together (51.1% for the Gentiles and 53.3% for the Jewish sample).

Graph 3.k/...

Graph 3.h

All Gentiles (Afrikaans- and English-speaking) versus all Jewish Subjects



2 W = card "2 Workers"
FSc = card "Form Scene"
B+B = card "Boy & Book"

all Gentiles (English-sp. & Afrikaans-sp.): ————

all Jewish Ss.: ————

C H A P T E R IV

The relationship between achievement fantasy scores and other tests

CHAPTER IV

The relationship between achievement fantasy scores and other tests

(Hypothesis C.1)

4.1 Achievement fantasy scores and intelligence tests

Previous investigations (as discussed in the survey of literature on p. 75) found no significant correlations between intelligence tests and various tests of achievement, including the n Achievement measure.

These negative findings were confirmed in the present investigation when a sample of 48 males from Stellenbosch was taken. These subjects had completed the achievement fantasy measure as well as the New South African Group Test for intelligence:- no significant correlation was obtained between the two measures.

4.2 Achievement fantasy scores and the F-scale

The F-scale claims to be assessing a subject's attitudes towards authoritarianism, and has been fully described by Adorno et al.(1950).

During the course of the present investigation, three independent samples of subjects who had completed both the F-scale and the achievement fantasy measure were obtained. The correlations between the two tests were all non-significant in these groups, viz:-

Afrikaans-speaking males from Stellenbosch and Bellville,
English-speaking males from the University of Cape Town,
Afrikaans-speaking females from Stellenbosch and Bellville.

4.3 Achievement fantasy scores and the Self-Rationalization Index

The Self-Rationalization Index was developed by Danziger (1963) by an analysis of future autobiographies. The scores range from zero (virtually no self-rationalization) to +25 (extremely high self-rationalization).

The concept of self-rationalization has been explained in the survey of literature in Part A, Chapter VIII.

Comparisons with achievement fantasy scores yielded no significant correlations. The following groups were investigated:-

a) Stellenbosch fem., arts faculty	(n=45)	r = +.04
b) U.C.T. males, arts faculty	(n=29)	r = -.30
c) U.C.T. females, arts faculty	(n=84)	r = -.17
d) all females	(n=164)	r = -.004
e) all males and all females	(n=219)	r = +.07

CHAPTER V

The assessment of achievement value orientations

C H A P T E R V

The assessment of achievement value orientations

5.1 Introduction

In a discussion, based on a literature survey (see Part A, Chapter IX), it was postulated that the achievement syndrome consisted of three factors, of which achievement value orientations was one. Since these orientations pertain to cognitive aspects of a person's behaviour, it should be possible to assess them by means of a questionnaire.

In spite of adverse comments by Murray (1938), the originator of the achievement value orientation questionnaire (which were cited in Chapter IX), it was decided to use twelve items in an attempt to validate them and the concomitant achievement syndrome factor by means of cross-cultural comparison.

5.2 Questionnaire items administered

The following items on achievement value orientations (which had to be answered either "true" or "false") were investigated:-

126. I am driven to ever greater efforts by an unslaked ambition.

127. I feel that nothing else which life has to offer is a substitute for great achievement.

128. I feel that my future peace and self-respect depend upon my accomplishing some notable piece of work.

129. I set difficult goals for myself which I attempt to reach.

130./...

130. I work with energy at the job that lies before me instead of dreaming about the future.

131. When my own interests are at stake, I become entirely concentrated upon my job and forget my obligations to others.

132. I enjoy relaxation wholeheartedly only when it follows the successful completion of a substantial piece of work.

133. I feel the spirit of competition in most of my activities.

134. I work like a slave at everything I undertake until I am satisfied with the result.

135. I enjoy work as much as play.

136. I like best that which lies beyond my reach.

137. Ambition is the parent of many virtues.

In addition, fifty other items were administered which were concerned with work habits (e.g., "I feel it is necessary to make summaries of lectures for myself"), attitudes towards time (e.g., "Do you feel that you are pressed for time more than most people?"), and attitudes towards dogmatism (e.g., "A person who does not believe in some great cause has not really lived."). The last-mentioned item comes from Rokeach's "Dogmatism Scale" (1960), in which an attempt is made to obtain details about the structure of a person's belief system, and to find the degree of dogmatism a person has.

A complete list of all questionnaire items is presented in the Appendix (pp. 293 - 296), together with the Afrikaans translations (pp. 297 - 300).

The complete/...

The complete list of sixty-two items was administered to Course I Psychology students at the Universities of Cape Town and Stellenbosch. Since lack of testing time necessitated a shortened version for use at schools, a preliminary survey was carried out with the university results to reject twenty-one items which were relatively irrelevant. However, all twelve items on achievement value orientations were retained.

5.3 Differences between groups as regards their achievement value orientations (Hypothesis B.7)

The total sample was grouped in the same way as the achievement fantasy scores (see Part B., Chapter III). For the initial inter-group comparison, a total of 573 questionnaires were investigated. This number exceeds the amount of achievement fantasy protocols, as questionnaires from 1963 Course I Psychology students at the University of Cape Town were also included. The latter had not written imaginative stories.

Table 5.a Number of subjects who answered the questionnaire items

	males	females	total
1. English-speaking Gentile students	78	99	177
2. English-speaking Gentile pupils	57	61	118
3. English-speaking Jewish students	26	69	93
4. English-speaking Jewish pupils	37	24	61
5. Afrikaans-speaking students	35	32	67
6. Afrikaans-speaking pupils	28	34	62
TOTAL	259	319	578

In an attempt to determine whether group differences as regards the total achievement value orientation scores existed, all "true" replies in response to the twelve items were added for every one

of the/...

of the groups. "True" replies could be taken as an indication of pro-achievement responses since the twelve items were all worded in one direction. The total group scores were then contrasted by means of the X^2- technique to ascertain whether significant differences existed between them.

The only statistically significant difference was found when English-speaking Gentiles were contrasted with Afrikaans-speaking subjects ($p < .05$); the Afrikaners obtaining higher total scores.

All other comparisons (e.g., between students and pupils, between males and females, between English-speaking Gentiles and Jews) showed that the differences in total scores did not reach statistical significance.

Taking the twelve questionnaire items individually, a further X^2- analysis was carried out to check whether the groups did not differ significantly as regards the "true" replies.
The results are reproduced in table 5.b, where the significance of the differences between the various groups has been indicated.

From a perusal of this table it becomes evident that the Afrikaans-speaking group gave significantly more "true" replies than either the English-speaking Gentiles or Jews to eight out of twelve items on achievement value orientations (numbers 126, 127, 130, 132, 134, 135, 136 and 137). This finding is in line with the significant difference found between the English-speaking Gentiles and the Afrikaans sample when the <u>total</u> scores were compared.

The English-speaking Gentile group gave significantly more "true" answers than the Jewish group to item no. 127, "I feel that nothing else which life can offer is a substitute for great achievement",

but this/...

but this trend was reversed for items no. 133 and 137, which does not allow any clear deductions to be made.

5.3.1 Conclusions

The Afrikaans-speaking group gave significantly more positive responses to questionnaire items on achievement value orientations than the two English-speaking groups in the total score as well as in the majority of individual items. These findings lend weight to the hypothesis that Afrikaners, due to their predominantly Calvinistic ideology, will tend to harbour stronger positive achievement value orientations than their English-speaking counterparts. The absence of significant differences between all other groups, such as males and females, students and pupils, as well as the inconclusive results obtained through a comparison of English-speaking Gentiles and Jews, causes the English-Afrikaans difference to stand out even more prominently.

When interpreting any results obtained through the use of Murray's questionnaire it must, however, be borne in mind that all items have been worded in a single (pro-achievement) direction. The possible existence of an 'acquiescent response set' must therefore be investigated. The group differences obtained above will only hold true if the tendency towards 'acquiescent response set' in the majority of subjects is not significant.

Table 5.b/...

Table 5.b Significant differences between groups on achievement value orientation questionnaire items obtained through X^2 - analysis

No.	E vs J	E vs A	J vs A	(E&J)vs A	m vs f	S vs P	Contents
126		A 1%	A 1%	A 1%		P 5%	unslaked ambition
127	E 1%		A 5%		m 1%		no substitute for achievement
128							personal peace by notable work
129							set difficult goals
130		A 1%	A 1%	A 1%		P 2%	work at job, no daydreaming
131							in fix, do job & forgot obligations
132	J 10%			A 10%			enjoy relaxing after work only
133					m 1%		competition in most activities
134	J 1%	A 1%		A 1%			work like slave until satisfied
135		A 5%		A 10%		S 2%	enjoy work as much as play
136		A 5%	A 10%	A 5%			like best that beyond reach
137		A 1%	A 1%	A 1%	m 5%		ambition parent of many virtues
TOTAL		A 5%					—

Initials of the group showing significantly more "true" answers are indicated, as well as the level of confidence.

ABBREVIATIONS:-

E = all English-speaking Gentile subjects
J = all English-speaking Jewish subjects
A = all Afrikaans-speaking subjects

m = all males
f = all females

S = all students
P = all pupils

5.4 The influence of "acquiescent response set" on achievement value questionnaire answers (Hypothesis A.4)

5.4.1 Introduction

Perusal of the achievement value questionnaire shows that Murray (1938) worded all twelve items in a single, positive direction so that someone professing to hold strong achievement values would tend to agree with all items and a person with low achievement values would tend to disagree.

It was Cronbach (1946, 1950) who was the first to present evidence that total scores on tests which are worded in a single direction will tend to contain a variance which might be due to an "acquiescent response set" in the subject, independent of item content.

According to Guilford,

> "By 'response bias' we mean that response to a test item tends to be altered in such a way that it indicates something other than which we intended it to measure. The biases in which we are particularly interested here are usually determined by mental sets on the part of the examinee that are other than optimal for ensuring valid measurement by means of the item."
>
> (Guilford, 1954, p.451)

Cronbach (1946, 1950) found that, among others, such response sets were likely to appear in questionnaires whose items had to be answered either "True" or "False" and where only "True" was scored. It is particularly in these tests that one tends to find the acquiescent "yes-man" - a person who agrees with most items irrespective of content.

Guilford/ ....

Guilford stated that the "acquiescent response set"

> "... is to favor affirmative responses over negative responses. There may be a few negativistic persons who are inclined in the opposite direction. The point is here that each person has some general disposition on this continuum, positive or negative. It is found, however, that more individuals give an excess number of "true" responses in the true-false tests, regardless of the actual composition of the test ... The number of "Yes" responses may be excessive on some papers. This may represent the actual situation with respect to this person's status in the traits that are scored, but it may also represent distortions due to the acquiescence set."
>
> (Guilford, 1954, p.452)

Research on "acquiescent response set" has mainly been based on empirical investigations of the "F-scale" as developed by Adorno, Frenkel-Brunswik, Levinson and Sanford (1950) and quoted at length in their book, "The Authoritarian Personality". The F-scale (F for Fascism) was constructed to measure ways of feeling and thinking to endorse an anti-democratic ideology. On this scale all items are unilaterally worded in such a way that agreement with them is scored as indicating potential fascism, disagreement as indicating non-fascism.

Empirical research utilising the F-scale and other "true-false" questionnaires led various authors to hypothesize that "acquiescent response set" could be due to one or more of the following situations:-

a) Whenever the subjects had a general tendency to answer items on social matters in a dogmatic and stereotyped way, in accordance with perceived or expected majority opinion (Bass, 1956; Gage, Leavitt and Stone, 1957;)

b/ ....

b) whenever subjects were unsure of their judgment and would therefore tend to fall into a category half-way between "true" and "false" (Christie, Havel and Seidenberg, 1958);

c) whenever questionnaire items were ambivalent or difficult to answer (Gage, Leavitt and Stone, 1957; also Guilford, 1954.)

The method most commonly employed to detect "acquiescent response set" in a questionnaire is to reverse some or all of the items and to observe whether the answers to the 'reversed' items tend to be given as "false" significantly less often than the 'straight' items are answered "true". By administering 'straight' items to some subjects and 'reversed' items to others in any homogeneous group it can now be established whether there is a statistically significant difference between the "true" answers to 'straight' items and "false" answers to 'reversed' ones.

This method has also been followed in the present investigation which will now be described in detail.

5.4.2 Empirical investigation of the achievement value questionnaire

Research into the possible presence of "acquiescent response set" in the achievement value questionnaire was undertaken by administering the 'straight' and 'reversed' forms in equal proportion to three independent samples.

The following groups were tested:-

	males	females
English-speaking pupils at Westerford High School	65	54
English-speaking students at Rhodes University	55	66
Afrikaans-speaking pupils at Bellville High School	32	35
Total:	152	175

Items reversed were the following:-

Item 3: I do not feel that my future peace and self-respect depend upon my accomplishing a notable piece of work.

Item 6: When my interests are at stake, I do not become entirely concentrated upon my job and do not forget my obligations to others.

Item 7: I always enjoy relaxation wholeheartedly, not only when it follows the successful completion of a substantial piece of work.

Item 8: I do not feel the spirit of competition in most of my activities.

Item 10: I do not enjoy work as much as play.

Item 12: Ambition is not the parent of many virtues.

(The original twelve items have already been presented in the beginning of this chapter.)

In the Afrikaans translation the reversed items were worded as follows:

Item 3: Ek voel nie dat my toekomstige vrede en selfrespek afhanklik is daarvan dat ek een of ander belangrike stuk werk uitvoer nie.

Item 6: As my belange op die spel is, konsentreer ek nogtans nie uitsluitlik op my werk nie, maar onthou nog altyd vir my verpligtinge teenoor andere.

Item 7: Die nie uitsluitlik nadat ek 'n groot stuk werk suksesvol voltooi het nie dat ek ontspanning hoelhartiglik geniet, maar altyd.

Item 8: By meeste van my aktiwiteite ervaar ek nie 'n gees van kompetisie nie.

Item 10/ ....

Item 10: Ek geniet werk nie soveel as plesier nie.

Item 12: Ambisie is nie die oorsprong van vele deugde nie.

In addition, Item 11 was reversed in the Afrikaans translation, which now read:-

Item 11: Ek hou meeste van daardie dinge wat binne my bereik is.

(The original twelve items are cited in Part V of the Appendix).

In every questionnaire an item was scored only when it had been answered in the pro-achievement direction, so that 'reversed' items were scored whenever the subject in question circled the answer "false".

The results are presented in the table s.c.

Table/ ....

Table 5.c

Comparison of the frequency of pro-achievement answers (given as percentages) for "straight" and "reversed" achievement value questionnaire items in various groups and the corresponding X^2- and p-values

Item No.	English-speaking male students				English-speaking male pupils				Afrikaans-speaking male pupils			
	"S" (%) (n=27)	"R" (%) (n=28)	X^2	p	"S" (%) (n=31)	"R" (%) (n=34)	X^2	p	"S" (%) (n=17)	"R" (%) (n=15)	X^2	p
1	56	57	< 3	NS.	39	35	< 3	NS.	71	93	< 3	NS.
2	33	29	< 3	NS.	42	35	< 3	NS.	53	60	< 3	NS.
3	59	57	< 3	NS.	71	53	< 3	NS.	59	60	< 3	NS.
4	67	71	< 3	NS.	55	68	< 3	NS.	82	80	< 3	NS.
5	52	54	< 3	NS.	45	44	< 3	NS.	59	87	< 3	NS.
6	30	25	< 3	NS.	37	24	< 3	NS.	24	27	< 3	NS.
7	70	39	4.75	≤05	58	44	< 3	NS.	65	47	< 3	NS.
8	78	61	< 3	NS.	71	62	< 3	NS.	76	67	< 3	NS.
9	19	18	< 3	NS.	32	12	< 3	NS.	41	73	< 3	NS.
10	37	43	< 3	NS.	32	35	< 3	NS.	71	40	< 3	NS.
11	56	39	< 3	NS.	39	38	< 3	NS.	53	60	< 3	NS.
12	63	50	< 3	NS.	77	50	4.11	≤05	82	53	< 3	NS.

Item No.	English-speaking female students				English-speaking female pupils				Afrikaans-speaking female pupils			
	"S" (%) (n=41)	"R" (%) (n=45)	X^2	p	"S" (%) (n=29)	"R" (%) (n=25)	X^2	p	"S" (%) (n=18)	"R" (%) (n=17)	X^2	p
1	49	27	3.59	NS.	45	48	< 3	NS.	94	76	< 3	NS.
2	27	20	< 3	NS.	38	40	< 3	NS.	28	18	< 3	NS.
3	49	51	< 3	NS.	62	52	< 3	NS.	56	47	< 3	NS.
4	68	76	< 3	NS.	72	72	< 3	NS.	83	53	< 3	NS.
5	51	49	< 3	NS.	45	40	< 3	NS.	78	88	< 3	NS.
6	17	29	< 3	NS.	24	44	< 3	NS.	33	12	< 3	NS.
7	41	31	< 3	NS.	66	36	3.58	NS.	50	29	< 3	NS.
8	68	69	< 3	NS.	69	56	< 3	NS.	61	71	< 3	NS.
9	15	16	< 3	NS.	17	20	< 3	NS.	39	71	< 3	NS.
10	63	38	4.66	≤05	28	48	< 3	NS.	67	47	< 3	NS.
11	51	47	< 3	NS.	41	56	< 3	NS.	72	59	< 3	NS.
12	51	47	< 3	NS.	69	56	< 3	NS.	78	65	< 3	N.S.

"S" = "straight" questionnaire
"R" = questionnaire with some items reversed (coloured rod)

From the table on the previous page it becomes evident that few questionnaire items tended to elicit significantly less pro-achievement responses when reversed.

They were:-

Item 7, which showed a significant difference at the 5%-level in the English-speaking male student group;

Item 10, which showed a significant difference at the 5%-level in the English-speaking female student group;

Item 12, which showed a significant difference at the 5%-level in the English-speaking male pupil group.

It is of interest to note that no questionnaire item obtained a significant difference in response by more than one group at a time when reversed and that the Afrikaans-speaking group, consisting of male and female pupils, did not show any significantly different reaction to a reversal of questionnaire items at all.

Perusal of the percentages in the table overleaf will, however, indicate that in spite of the lack of significant differences there seems to be a fairly general tendency for pro-achievement percentages to be higher in the 'straight' questionnaire items when compared to percentages of pro-achievement answers in the 'reversed' items. It could therefore be possible that a summation of scores from all reversible items in every group would show a significant difference to exist between the total scores of the 'straight' and the 'reversed' questionnaires after all.

χ^2 -tests/ ....

X^2-tests were therefore carried out by contrasting the total scores, for every group separately, of the two types of questionnaires obtained as indicated.

Table 5.6 The significance of differences obtained when contrasting the TOTAL scores of "straight" items with TOTAL scores of "reversed" items

Group	X^2	p
English-speaking male students	3.13	N.S.
English-speaking male pupils	6.47	<.05
Afrikaans-speaking male pupils	2.25	N.S.
English-speaking female students	0.79	N.S.
English-speaking female pupils	3.57	N.S.
Afrikaans-speaking female pupils	3.44	N.S.

From the above results it is clear that the tendency for more pro-achievement answers to be given in the "straight" questionnaire items, when added, is statistically significant only in one group out of six.

5.6.3 Discussion

When the results of the present investigation are compared with the opinions voiced on "acquiescent response set" in the relevant literature (as discussed in the introduction) the following emerges:-

1. According to Bass (1955), Gage, Leavitt and Stone (1957), as well as Chapman and Campbell (1957), the tendency to acquiesce reflects authoritarian personality tendencies.

Should/...

Should a tendency exist for the positively-worded achievement value questionnaire to elicit a strong "acquiescent response set" it would follow in most subjects that one ought to expect a positive correlation between this questionnaire and the F-scale, as both would tend to test a common factor.

Furthermore, Chapman and Campbell stated that

> "... it does imply that the correlations with tests similarly constructed will be higher than they would be were the response-set bias controlled as by having items worded in both directions."
>
> (Chapman and Campbell, 1957, p.131)

According to the opinions voiced above there will thus be no significant "acquiescent response set" in the achievement value questionnaire, as

(a) the correlation between 'straight' achievement value questionnaire score and F-scale total score is not significant:-

$r = .04$ for males ($n=21$) and $r = .09$ for females ($n=31$) in a sample of Psychology I students at Rhodes University who had been given both tests;

(b) the correlations between the positively-worded F-scale scores and the 'straight' achievement value questionnaire total scores on the one hand, and between the same F-scale score total and the 'reversed' questionnaire item scores on the other hand do not differ appreciably:-

$r = .04$ and .10, respectively, for Rhodes University males ($n=21$),

and $r = .09$ and .03, respectively for Rhodes University females, numbering 31.

2)/ ....

2. The arguments presented in the previous section do not, however, explain why the Afrikaans sample reacts equally strongly in a pro-achievement way to both 'straight' and 'reversed' questionnaire items whereas the English-speaking subjects do show significantly differences in this respect as regards some reversible items, as well as showing evidence of a significant difference in the total of 'straight' item scores as opposed to the total of the 'reversed' item scores in one group, viz. the English-speaking male pupils.

One could possibly assume some greater tendency towards "acquiescent response set" in the English-speaking sample. It may perhaps be explained by the finding that the English-speaking subjects, on the whole, obtain significantly lower scores on the 'straight' achievement value questionnaire, as already discussed in the first part of this chapter.

This could mean that, in contrast to the Afrikaans groups tested, the English-speaking subjects are not as overtly conscious of and concerned with the importance of positive value orientations. On the other hand, drastically low scores would point in the direction of an expressly negative attitude towards achievement values.

As the English-speaking subjects, on the whole, tend to follow a middle road in this respect, one could possibly conclude, in accordance with Christie, Havel and Seidenberg (1958), that they belong to those groups which hold moderate views rather than extreme attitudes. For this reason they may be more likely to show "acquiescent response sets", as they tend to view the "true-false" items on the achievement value questionnaire as relatively ambiguous and difficult. One could expect them to direct their attention more easily than Afrikaners to the precise wording and meaning of every item.

It is/ ....

It is understandably fairly difficult to word any sentence negatively in such a way that it will have exactly the opposite meaning of the original. There is no doubt that finer points tend to get lost or changed in meaning during such a procedure. This difficulty has already been pointed out by Chapman and Campbell (1957) as well as Christie, Havel and Seidenberg (1958). The latter in particular emphasise the difficulties of reversing items not only logically, but also psychologically, correct.

In the case of the Afrikaners one may hypothesise that they tend to be relatively less influenced by such small changes in meaning through reversal so that they will answer these questionnaire items in a pro-achievement way, no matter how relatively bluntly the questions are phrased. The appearance of significant differences between some 'straight' and 'reversed'items may therefore be due to different interpretations given to them by the English-sp. subjects.

The observation that English-speaking subjects, while being tested, tended to ask questions about the precise meaning of some questionnaire items far more often that their Afrikaans-speaking counterparts, especially in item 12, "Ambition is (not) the parent of many virtues", seems to bear out this point.

5.4.4 Conclusion

In conclusion it can be said that little proof has been found for the existence of a strong "acquiescent response set" in both language groups tested. A light tendency may, however, be present in the English-speaking group due to their more questioning attitude towards the items, while, on the other hand, the views of the Afrikaans-speaking subjects seem to be more dogmatic (possibly due to their stronger Calvinistic orientation which places greater stress on positive achievement value orientations). Afrikaners may therefore tend to give more attention to the general direction of the question - either pro- or anti-achievement - and not so much to its precise wording.

5.5/...

5.5 The homogeneity of the questionnaire on achievement value orientations

The degree of homogeneity a test possesses is indicated by an assessment of its internal consistency reliability (Guilford, 1956).

For an assessment of the questionnaire's internal consistency it was decided to use Kuder-Richardson's 'formula 20' as cited by Guilford (1954 & 1956). This formula pays more attention to the homogeneity of a test than do the split-half procedures.

Table 5.6 Coefficients of internal consistency for the questionnaire on achievement value orientations

	males r_{tt}	females r_{tt}
Afrikaans-speaking pupils	0.61	0.56
Afrikaans-speaking students	0.75	0.80
English-speaking Gentile pupils	0.61	0.73
English-speaking Gentile students	0.65	0.65
English-speaking Jewish pupils	0.62	0.82
English-speaking Jewish students	0.73	0.69

Additional computations, using all subjects of every language group, showed that the Jewish group obtained the highest internal consistency score with a r_{tt} of 0.77. The English-speaking Gentiles (r_{tt} = 0.69) and the Afrikaans-speaking group (r_{tt} = 0.68) were ~~almost~~ similar, and both slightly lower than the Jewish group.

Since most coefficients are situated between an r_{tt} of 0.60 and 0.80, it can be concluded that the questionnaire possesses a fair degree of functional homogeneity.

5.6/...

5.6 A comparison between pre-achievement replies to the questionnaire on achievement value orientations and scores on the achievement fantasy measure (Hypothesis C.2)

After having established that the tendency for 'acquiescent response set' in the questionnaire on achievement value orientations was not significant, it was possible to use this measure in an investigation of the hypothesized independence of achievement syndrome factors (as discussed in the literature survey, Chapter IX).

Empirical proof for such an assumption of independence can be advanced by contrasting the different measures of the achievement syndrome factors with one another.

In the case of a X^2- comparison between achievement value orientation questionnaire answers and achievement fantasy scores, it was obviously not permissible to utilise the median of the total achievement fantasy score distribution (all groups combined) as a point for dichotomization of the respective questionnaires into "highs" and "lows", as results have shown that English-speaking subjects tended to obtain significantly higher achievement fantasy scores than the rest. A dichotomization along these lines would have caused a relative predominance of the English-speaking subjects among the "highs" and of the Afrikaans-speaking subjects among the "lows". This could lead to spurious results.

As a consequence, the median of every single group's achievement fantasy score distribution was taken separately. This resulted in equal representation of every group among the "highs" and the "lows" as regards achievement fantasy score.

Table 5.f/...

Table 5.f Percentage change in "high" achievement fantasy scores when each group's individual achievement fantasy score median is used as cut-off point (B), instead of the median of the TOTAL sample (A)

Group	% "high" ach. fant. score	
	A	B
1. all English-speaking Gentile subjects	67%	51%
2. all English-speaking Jewish subjects	51%	50%
3. all Afrikaans-speaking subjects	42%	50%

After the achievement fantasy score of every subject had been assigned to either the "high" or to the "low" category, his or her questionnaire sheets were marked accordingly.

Taking the total score on each questionnaire (obtained by adding the "true" replies), all groups were also dichotomized at their respective medians into "highs" and "lows" with respect to their achievement value orientations.

By means of 2 x 2 tables and a X^2 - analysis it was now possible to establish whether the two measures were independent of one another or not.

The following groups were investigated in this way:-

1. all English-speaking Gentile subjects
2. all English-speaking Jewish subjects
3. all Afrikaans-speaking subjects

4. all males
5. all females
6. all students
7. all pupils

5.6.1 Results obtained when comparing the achievement fantasy level with the TOTAL questionnaire score

It was found that "highs" on achievement fantasy were not significantly different from "lows" in any one of the groups mentioned on the previous page as regards their replies to the questionnaire on achievement value orientations. This indicates that there is no significant relationship between the two tests in the samples investigated.

A further analysis was nevertheless undertaken, this time contrasting "high" and "low" scores on the achievement fantasy measure as regards their replies to individual questionnaire items.

5.6.2 Results obtained when comparing the achievement fantasy level with individual questionnaire items

Perusal of table 5.f (overleaf) shows that there was only one item which was answered differently on a statistically significant level by "high", as opposed to "low", fantasy scorers.

This was item no. 132, "I enjoy relaxation wholeheartedly only when it follows the successful completion of a substantial piece of work". Persons agreeing with this statement had significantly lower achievement fantasy scores. This tendency was evident in the following groups:-

all English-speaking Gentile subjects	($p < .01$)
all males	($p < .01$)
all pupils	($p < .01$)
Grand total	($p < .01$)

Although the same trend was evident in the Jewish sample, it did not reach statistical significance.

The results obtained substantiate the hypothesis that the two measures tend to be independent of one another in every one of the diverse samples investigated.

Table 5.g/...

Table 5.g

Significant differences in responses to questionnaire items on achievement value orientation between subjects with "high" and subjects with "low" n Achievement scores in various groups

(X^2- analysis)

No.	Engl.	Jewish	Afrik.	male	female	Stud$	Pupils	Grand Total	Contents
126									unslaked ambition
127									no substitute for achievement
128									personal peace by notable work
129									set difficult goals
130									work at job, no daydreaming
131									in fix, do job & forget obligations
132	L 1%			L 1%			L 1%	L 1%	enjoy relaxing after work only
133									competition in most activities
134									work like slave till satisfied
135									enjoy work as much as play
136									like best that beyond reach
137									ambition parent of many virtues

Abbreviations: Engl. = all English-speaking Gentile subjects
Jewish = all English-speaking Jewish subjects
Afrik. = all Afrikaans-speaking subjects
male = all male subjects
female = all female subjects
Stud$ = all students
Pupils = all pupils

L = Subjects with "low" n Achievement scores giving significantly more "True" answers to the item in question

H = Subjects with "high" n Achievement scores giving significantly more "True" answers to the item in Question

5.7 The relationship between achievement value orientation scores and other tests (Hypothesis C.1)

5.7.1 Achievement value orientation scores and intelligence tests

When total scores on the achievement value orientation questionnaire were correlated with intelligence test scores (from the New South African Group Test) it was found that no significant relationship existed in the three samples tested, viz. Afrikaans-speaking male students, English-speaking male pupils, and English-sp. female pupils.

5.7.2 Achievement value orientation scores and the F-scale

The non-significant relationship between F-scale scores and achievement value orientation scores, found in four different samples consisting of English-speaking students, has already been mentioned in the section on 'acquiescent response set' (see p. 228). These findings were substantiated by an additional investigation of two Afrikaans-speaking samples (male and female Afrikaans-speaking pupils). Again, no significant relationship was found to exist.

5.7.3 Achievement value orientation scores and the Self Rationalization Index

The Self Rationalization Index (Dansigor, 1963), which has been described on pp. 120 - 121, was found not to be significantly related to questionnaire scores in four different samples, viz.:

a) female Afrikaans-speaking students
b) male English-speaking students
c) female English-speaking students
d) male Afrikaans-speaking pupils.

5.7.4 Achievement value orientation scores and the questionnaire items on attitudes towards work habits, time, and domination

The scores on the twelve items dealing with achievement value orientations were added on the answer sheet of every subject and dichotomized into "highs" and "lows" at the median of every one of the samples cited in table 5.h. The "highs" and "lows" of each group were then contrasted with every one of the fifty questionnaire items

concerning/...

concerning work habits, attitudes towards time, and attitudes towards dogmatism (items 101 - 125 and 138 - 162, as listed in the Appendix, pp. 293 - 296).

No significant relationships were found between subjects with low scores on the achievement value orientation questionnaire and "true" replies to any of the fifty items. On the other hand, subjects with high scores on the achievement value orientation questionnaire answered "true" significantly more often than low scorers in the case of five items, as shown on table 5.h.

The significant differences obtained show a consistent picture. Subjects asserting more frequently that they have high achievement value orientations can be considered willing to "put up with a lot of unhappiness in the present" in order to gain future happiness (item 122). In the sphere of work and education they more often assert that "the role of the school is to prepare children for their careers" (item 116), and that it is felt necessary to make summaries of lectures for oneself (item 143). When questioned about attitudes towards time, subjects with high achievement value orientations were found to state significantly more often that they were irritated "to have a watch or clock which is off by several minutes every day or so" (item 156), and that they felt uneasy when not certain of the time (item 157).

One may conclude that there seems to be some indication that subjects with high achievement value orientations may tend towards a higher valuation of self-control.

5.7.4.1 Achievement fantasy scores and the questionnaire items on attitudes towards work habits, time, and dogmatism

In conjunction with the comparisons cited in the previous section, the relationship between the achievement fantasy measure and the fifty questionnaire items was also investigated. The significant differences obtained have also been listed in table 5.h.

From a/...

From a perusal of this table it becomes evident that only a few significant differences were found when high and low achievement fantasy scores of individual groups were contrasted with the various items.

In reply to items concerning attitudes on work habits, subjects high on achievement fantasy stated significantly more often that they felt their study periods to be interrupted too often (item 140), and that they felt the need for making summaries of their lectures (item 143). Subjects with high achievement fantasy scores also stated significantly less often that they frequently had to wait for the "mood to strike them" or for an "inspiration" before starting a task (item 138). They furthermore maintained less often that they found it hard to force themselves to finish work by a certain time, under pressure (item 141). These findings present a fairly consistent picture and give some indication of differences in the work habits between "highs" and "lows" on the achievement fantasy measure.

Subjects which obtained high achievement fantasy scores also stated significantly more often that they believed the lot of the average man to be getting worse and not better (item 104). This item expresses a pessimistic attitude towards the future. In a study of several countries, McClelland (1961) established that 'optimism scores' (derived from similar questionnaire items) were either non-significantly, or negatively, related to achievement fantasy scores. The present findings confirm the results obtained by McClelland. The latter could give no reasons why this tendency should exist.

5.7.5 Conclusions

The questionnaire for achievement value orientations was found to be independent of various measures, such as an intelligence test or the F-scale. This result, together with the finding that not more than five out of fifty questionnaire items showed some significant relationship to achievement value orientation questionnaire scores on the one hand, and achievement fantasy scores on the other, are further evidence in support of Hypothesis C.1 which states that tests of achievement syndrome factors will tend to be independent of other personality variables.

Table 5.1

Significant differences between various questionnaire items and their scores on the achievement value orientation questionnaire (A1) as well as the achievement fantasy measure (A2)

(Abbreviations:- see following page)

No.	A1	A2	Anx.	Ach	Level of	Fam. Dis	Trust Belief	Statement
1.1								Live for today. Don't to tomorrow
1.2								consider one happiness only
1.3								will be in great st...
1.4			A2 0				A2 0	lot of events can possibly worse
1.5								planning makes happy
1.6								no permanent ...ship exists
1.7								on birth, success already on cards
1.8								no such thing as good luck
1.9								influenced of ...e remarkable
1.10								...ing of "Heter-dity" not known
1.11								practical matters, not ideals, count
1.12								...ational factors in ...e selection
1.13								children should not ...ercom
1.14								those who stand & wait also serve
1.15								most people may be inconsiderate
1.16		A2 1					A2 0	school's role is career preparation
1.17								school curriculum too academic
1.18								stay in same country as parents
1.19								secret of happiness is contentment.
1.20								egotistic person ...ompatible
1.21								...ple "overthinking" ...ems in life
1.22	A1 1				A1 1	A1 1		A1 1 happiness through ...ependent hardwork
1.23								youth is confident ...ut future
1.24								...on on his own ...ical ideas
1.25								...ecial life ...rough devotion

(Items 1.1 - 1.25 on following page)

Table 5.h (continued)

No.	Engl.	Jewish	Afrik.	male	female	stud.[S]	pupils	grand total	contents
138	AF (L) 1%							AF (L) 2%	wait for "inspiration" before start
139									study periods too short to "warm up"
140				AF 1%					study periods too often interrupted
141		AF (L) 1%		AF (L) 2%			AF (L) 2%	AF (L) 2%	hard to finish work for deadline
142									plan exam question before writing it
143	AF 1%		AQ 1%		AQ 1%	AQ 1%		AQ 1% AF 1%	make summaries of lectures
144									book read with equal thoroughness
145									work on essay only if deadline exists
146									easy to stick to work schedule
147									knowledge of own plans next summer
148									spend too much time on some thing
149									save allowance for "just in case"
150									pressed for time more than others
151									poor memory for past life events
152									difficult to remember dates
153									enough time to do planned things
154									childhood events seem very close
155									clocks shouldn't have been invented
156		AQ 1%			AQ 1%	AQ 1%		AQ 1%	inaccurate watch is irritating
157		AQ 1%			AQ 1%	AQ 1%		AQ 1%	uneasy when uncertain of the time
158									usually accurate idea of time
159									childhood days seem unreal
160									impatient when waiting five mins.
161									tend to waste time & spend uselessly
162									feel guilty if sleeping late

Abbreviations:- AQ = Subjects with "high" achievement value orientation scores giving significantly more "true" answers to the item in question

AF = Subjects with "high" achievement fantasy scores giving significantly more "true" answers to the item in question

AF (L) = Subjects with "low" achievement fantasy scores giving significantly more "true" answers to the item in question

Other abbreviations: as in table 5.g, page 235.

CHAPTER VI

The measurement of affiliation fantasy

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The measurement of affiliation fantasy

6.1 Introduction

The detailed instructions given in the "Scoring Manual for the Affiliation Motive", as described by Heyns, Veroff and Atkinson (1958), were closely followed.

According to their definition,

> "Affiliation imagery is scored when the story contains some evidence of concern in one or more of the characters over establishing, maintaining, or restoring a positive affective relationship with another person...
>
> Affective concern is ... readily inferred from some statement of how one person <u>feels</u> about another or their relationship."
>
> (Heyns et. al., 1958, p.206-6)

Stories are scored for presence or absence of affiliation fantasy. Unrelated imagery and doubtful imagery stories are scored nil. Once the presence of affiliation fantasy has been established, the stories are examined for the presence of the following sub-categories:

<u>Stated need for affiliation (N)</u>

This is scored when someone in the story desires to affiliate with some other person or a group of persons.

<u>Instrumental activity (I^+, $I^?$, I^-)</u>

This category refers to overt acts or thoughts of a problem-solving nature directed towards establishing, maintaining, or restoring an interpersonal relationship. They are scored +, ?, or - according to the outcome of the activity.

anticipatory/ ...

6.3 Sampling procedure

As this survey of affiliation fantasy happened to be only a side issue which could not be catered for properly during the testing period, it was decided to score thirty protocols of each subgroup only. Furthermore, no differentiation was made between English-speaking Gentiles and Jews.

The achievement fantasy results had already been entered on their respective scoring sheets, mostly in alphabetical order. The first thirty names on each list were thus used for the affiliation fantasy investigation, except where a group numbered less.

A total of 341 TAT-type protocols were scored for affiliation fantasy, as detailed in Table 6.a. Table 6.b (overleaf) shows the frequency distribution of the three different language groups.

Table 6.a/...

Table 6.a Number of imaginative stories investigated for the assessment of affiliation fantasy

Group	males	females	total
1. English-speaking arts students	30	30	60
2. English-speaking science students	35	-	35
3. English-speaking pupils	30	30	60
4. Afrikaans-speaking arts students	30	30	60
5. Afrikaans-speaking science students	30	6	36
6. Afrikaans-speaking pupils	30	30	60
7. German-speaking pupils	30	-	30
TOTAL:	215	126	341

Table 6.b Language group analysis of the sample investigated for affiliation fantasy

Group	males	females	total
1. all English-speaking subjects	95	60	155
2. all Afrikaans-speaking subjects	90	66	156
3. all German-speaking subjects	30	-	30
TOTAL:	215	126	341

6.4 Distribution of affiliation fantasy scores

The scoring system for affiliation fantasy is basically similar to that of achievement fantasy. It was therefore not surprising that the score distribution of the former measure tended to approximate a J-type curve much more than a normal curve. As evidenced in table 6.c, more than 50% of the subjects in every group obtained no affiliation fantasy scores at all.

X^2-tests for goodness of fit (McNemar, 1949) were carried out for the main samples, with the following result:-

A) all English-speaking male subjects (n=95) X^2= 49.22, $p<.001$
B) all English-speaking female subjects (n=60) X^2= 29.42, $p<.001$
C) all Afrikaans-speaking male subjects (n=90) X^2= 46.07, $p<.001$
D) all Afrikaans-speaking fem. subjects (n=66) X^2= 18.46, $p<.001$

Due to this very significant non-normal distribution tendency, a X^2-analysis was the best choice. This method, however, does not take individual differences in scores into account, and therefore the intricate scoring system became unnecessary. It was sufficient to establish whether or not the criteria for scoring affiliation fantasy had been met in a particular story.

6.5 A comparison between groups as regards affiliation fantasy scores

As only 122 out of the total 341 protocols showed any affiliation fantasy at all, dichotomisation had to be made at the zero point. The average score for all three TAT-type cards was always used. The dichotomination of scores is presented in table 6.c overleaf.

Table 6.c/...

Table 6.c Dichotomization of affiliation fantasy scores

	m		f		total	
	0	> 0	0	> 0	0	> 0
1. English-speaking arts faculty stud.[8]	17	13	16	14	33	27
2. English-speaking science faculty stud.[6]	14	11	-	-	14	11
3. Afrikaans-sp. arts faculty students	18	12	18	12	36	24
4. Afrikaans-speak. science fac. stud.[3]	21	9	3	3	24	12
5. English-speaking students, Stellenbosch	7	3	-	-	7	3
6. English-speaking pupils	21	9	18	12	39	21
7. Afrikaans-speaking pupils	22	8	21	9	43	17
8. German-speaking pupils	23	7	-	-	23	7
TOTAL:-	143	72	76	50	219	122

The Median (H^2) test for more than two groups (Hellemar, 1969, p. 358) was carried out to see whether there was a significant difference between the thirteen subgroups listed above. A X^2-total of 6.85 was obtained. This is far below the value of 21.03, needed to show a significant difference at the 5%-level, with d.f.= 12. A further detailed analysis of various groupings identical to those mentioned in Part B, Chapter III (for achievement fantasy) was carried out, but no significant differences were found between any two groups investigated. Although no significant differences between groups were found, some consistent trends did become apparent, which may aid future investigations:-

Taking the average affiliation fantasy score into account,

students scored higher than pupils, (av. 0.69 vs. 0.43)
females scored higher than males, (av. 0.66 vs. 0.51)
English-sp. science stud.[8] scored higher than the overall total sample, (av. 0.94 vs. 0.59)

The last-named/...

The last-mentioned difference might have reached statistical significance if the science student sample (n = 25) had been larger. This high score may, however, be due to the different testing conditions, since these students were being paid for doing the tests, and they were also the only ones being tested in small groups of 6 - 8 persons, which might have caused their readiness to give affiliation responses to be different.

The extremely low score of the German pupils (mean = 0.32) may, on the other hand, be due to their extreme lack of co-operation. This has already been commented on as regards their achievement fantasy scores (see Part B, Chapter I, 1.2.4).

6.6 <u>The relationship between affiliation fantasy and the two achievement syndrome measures</u> (Hypothesis C.1)

The assumption that tests of achievement syndrome factors would not be significantly related to affiliation fantasy scores was confirmed by testing four different samples.

No significant relationships were found to exist between affiliation fantasy scores and achievement fantasy scores on the one hand, and between affiliation fantasy scores and achievement value orientation questionnaire scores on the other.
The following groups were investigated:-

a) male English-speaking students
b) female English-speaking students
c) male Afrikaans subjects (students and pupils)
d) female Afrikaans subjects (students and pupils).

The lack of significance may, of course, also be due to the fact that the three TAT-type cards were not specially selected to elicit affiliation fantasy responses.

Chapter VII/...

CHAPTER VII

The measurement of achievement behaviour and its relation to achievement fantasy and achievement value orientations

The measurement of achievement behaviour and its relation to achievement fantasy and achievement value orientations

(Hypothesis C.3)

7.1 The measurement of achievement behaviour

The measurement of the third achievement syndrome factor - achievement behaviour - proved to be a difficult undertaking.

One possible way would be to interview the subjects personally with the object of assessing their achievement behaviour. A good many arguments, however, speak against this method, of which a few are enumerated below:-

a) A subject could easily withhold or falsify information about his or her real achievement behaviour in such a short interview. This could be at a conscious or at an unconscious level. Lack of insight on the part of the subject could also play a part.

b) The interviewer, not being acquainted with the subjects, could easily tend to misinterpret information given.

c) The results of such an interview could be influenced by the other achievement syndrome tests if the latter had been administered shortly beforehand. This could especially be the case with the questionnaire on achievement value orientations, which is a self-judgement also. Conversely, such an interview could possibly influence the replies given to achievement value questionnaire items when the latter were administered at a later date.

Another /...

Another possible assessment of achievement behaviour could conceivably be obtained by looking at academic success. But such an approach has to be rejected because of the possible influence which many other factors, such as intelligence, outside distractions, or difficulty of the course, could have on the final result, to mention only a few. Even if all other contributing factors were known, it would be difficult to control them.

The third possible approach consisted of obtaining the judgement of experts on the achievement behaviour of every subject. This was difficult, if not impossible, in the case of first year students at university, since they were not yet individually known to lecturers. There only remained the judgement of pupils by their teachers. The latter could be presumed to know their pupils well enough to be able to comment on their achievement behaviour. Here again, personal opinions could influence the results. It was possible to exclude the distorting factor to a large extent by checking through the cumulative record cards in which comments on individual pupils had been made by several teachers over a number of years (Standards VI - IX). The reliability of the modal judgements promised to be fairly high. The fact that the comments had been made over a period of almost four years could indicate whether the achievement behaviour (if present) showed some degree of stability in the individual subjects.

Unfortunately, no language group comparison could be undertaken, since this information was obtainable from Westerford High School (English-speaking pupils) only.

The cumulative record cards showed each pupil's quarterly examination marks as well as short comments by the class teacher. These comments were classed as "positive", when all, or almost all, of the remarks over the years were to the effect that the pupil

in question/...

in question was diligent, hard-working, attentive, and that the work done was most satisfactory.

Remarks were listed as "negative" when it was consistently stated that the pupil in question was apathetic, inattentive, lazy, a failure, or that he or she was unable to improve.

Sometimes the records showed an inconsistent trend over the years. These pupils were not taken into account for the subsequent calculations.

Out of a number of 60 male pupils, 25 were judged to be relatively high in achievement behaviour, and were thus classed as "positive"; 29 were classed as having low achievement behaviour. The rest fell into the "doubtful" category. With the females, 25 out of 46 were taken to possess high achievement behaviour, and 19 were classed as "negative".

7.2 Differences between achievement behaviour and achievement fantasy scores

The "positive" and "negative" judgements of achievement behaviour were, for each pupil, contrasted with the "high" or "low" achievement fantasy scores by means of the X^2 - method. (Both measures had been dichotomized at their respective medians).

It was found that no significant trend was evident for the female group. The males showed a very slight, but statistically non-significant, trend, for subjects with high achievement fantasy scores to be rated as having high achievement behaviour. This trend disappeared when both sexes were combined.

7.3/...

7.3 Differences between achievement behaviour and questionnaire items on achievement value orientations

The total of each pupil's "true" answers in response to the twelve questionnaire items (see Part B, Chapter V, p. 214-5) was obtained and dichotomized into "highs" and "lows" at the median.

A X^2- analysis showed that these questionnaire items, taken either singly or together, could not differentiate significantly between ratings of high and of low achievement behaviour.

7.4 The relationship between achievement behaviour and other tests

Ratings of high and of low achievement behaviour were contrasted with:-

a) scores on the F-scale
b) Self Rationalization Index scores
c) the fifty items concerning attitudes towards work habits, time, and dogmatism (see Appendix, pp. 293 - 296).

No significant relationships were found to exist between achievement behaviour assessments and any one of these measures, taking the male and female English-speaking pupils separately, or together.

7.5 Conclusions

Due to a variety of difficulties experienced, it was possible to make a fairly reliable assessment of the achievement behaviour factor in the case of one group only. As a result, only a limited inference can be made about the relationship between achievement behaviour and the two other achievement syndrome factors.

In the sample studied, achievement behaviour seems to be independent of achievement fantasy. It also seems to be independent of achievement value orientations. Lastly, no significant relationship was found to exist between achievement behaviour and other personality variables, such as intelligence and self rationalization.
Taken together with the empirical findings mentioned earlier (lack of relationship between achievement fantasy and achievement value orientations), the results lend support to the hypothesis that the three achievement syndrome factors tend to be independent of one another, and also independent of other personality variables.

CHAPTER VIII

Implications of the findings in the experimental investigation and the relevant literature

Implications of the findings in the experimental investigation and the relevant literature

8.1 Introduction

The current investigation was concerned with the measurement of the achievement syndrome and its applicability in various cultural groups.

As mentioned previously, a syndrome in the psychological sphere has been defined as

> "... loosely, a cluster of characteristics, a set of behaviors believed to have a common cause or basis."
>
> (English and English, 1958, p. 540)

The "achievement syndrome" concept thus has the advantage that, in its exploration, it is possible to adhere to observable facts, being, in the present case, the performance of subjects on measures of different achievement syndrome factors.

The postulation of the existence of an achievement syndrome was due to the difficulties experienced with McClelland's claim that his "n Achievement measure" really measures achievement motivation. It seemed safer just to state that this test measured achievement fantasy and to treat this achievement fantasy as one factor of the achievement syndrome.

Other achievement syndrome factors were taken to be achievement value orientations, which could be tested by means of a questionnaire, and achievement behaviour, which could be assessed by outside observers who had a thorough knowledge of each subject.

It was/...

It was assumed that every one of the three achievement syndrome factors would tend to vary in two or more sociologically distinct criterion groups. Hypotheses (in the sphere of achievement) based on empirical knowledge of different cultures to which these groups belonged could then be contrasted with results obtained from the tests designed to measure aspects of the achievement syndrome. This procedure would permit some assessment of the above tests to be made, and vice versa, it could possibly contribute empirically to our existing knowledge of the groups investigated.

In the current inquiry emphasis was placed on an investigation of the two tests utilized, viz. McClelland's n Achievement measure and Murray's questionnaire on achievement value orientations. Here again, the main accent fell on the n Achievement measure because this test is the most widely used and discussed in the sphere of research on achievement. The many differing conclusions drawn from its application by various authors indicated a thorough study of it in a cross-cultural, non-American context. Achievement behaviour, on the other hand, being difficult to assess empirically, was discussed mainly in connection with its relation to each one of the two tests.

In the following sections the findings on each of the three achievement syndrome measures are dealt with separately, before their degree of interrelationship is discussed. It has been finally attempted to give an answer to the question whether the achievement syndrome's validity can be inferred from empirical findings in the cross-cultural sphere.

D.2/...

8.2 Conclusions concerning some characteristics of the achievement fantasy measure

8.2.1 Attitudes of subjects towards being tested

A negative attitude of subjects towards being tested concerns the specific evaluation of a test in the case where this antagonism is evident towards the particular test only, and not towards any other measures given at the same time. Should this be the case, it would have a limiting effect on the general applicability and validity of such a test.

During the course of the present investigation it was found that the German group showed a marked aversion to being tested. This attitude was, however, directed against all tests administered in the course of one session, and not against a specific one only.

As a result, the imaginative stories were so meagre that achievement fantasy scores derived from them were of no value. Had the latter been used in a 'blind' analysis, a totally false picture of the German group might have been obtained. The co-operation of all South African groups tested was, on the other hand, most satisfactory and all further calculations and comparisons were thus based on their test results only.

As regards achievement fantasy it can therefore be said that it will be reflected in the stories of subjects only if the latter are positively inclined towards the test. The assumption that subjects tested will hold a positive view towards this measure must therefore be qualified, although no mention has been made of such a possibility in the relevant literature. Further investigations should beware of making cross-cultural comparisons without taking this factor into consideration.

8.2.2/...

8.2.2 Scoring reliability

The scoring reliability is an important aspect of every projective test because the inherent vagueness of the various cues permits individual differences of interpretation, thereby influencing the objectivity. Furthermore, the degree of objectivity indicates the extent to which it is possible to learn the scoring system of a test.

This aspect is of importance in the present context because the author could acquire a knowledge of the relatively intricate scoring system of the achievement fantasy measure by means of written instructions only. Nevertheless, it was found that the scoring reliability happened to be satisfactory, as shown by the fact that the scores obtained by an independent observer correlated highly with those arrived at by the author for the same sample.

This result corroborates the positive findings on the scoring reliability of this measure as cited in the relevant literature.

It can be concluded that the scoring system, as laid down in writing, can be learned with a satisfactory degree of objectivity and that it is unlikely for the results to have been negatively influenced by any deficiencies in this sphere.

8.2.3/...

8.2.3 The cue value of cards

Another important aspect of projective tests is the cue value of the stimulus material. In the case of measuring achievement fantasy the interest is centered around the question to what extent the cards used will tend to elicit achievement fantasy responses.

All samples were tested with three TAT-type cards. The final score of each subject was calculated by adding the achievement fantasy scores of these cards and dividing the total by three. It was therefore likely that differences in cue values could lead to unequal representation of cards in the final score.

In the present investigation it was found that card 1 ("2 Workers") was definitely superior to card 2 ("Farm Scene"). The same trend was found when card 1 was contrasted with card 3 ("Boy and Book"). On the whole it seems that card 1 possesses the highest cue value as regards eliciting achievement fantasy. However, this tendency, as evidenced in the total sample, was in certain cases due to some groups only.

The significant drop between card 1 and card 3 was solely due to the English-speaking Gentile and Jewish groups. In the Afrikaans-speaking group these cards were equally good at eliciting achievement fantasy responses.

Again, the significant drop from card 3 to card 2, when taking the total sample, was due only to the Afrikaans-speaking female students and pupils. The Afrikaans males showed the same trend, but it did not reach statistical significance.

A possible/...

A possible explanation for the fact that all groups investigated gave significantly less achievement fantasy in response to card 2 as opposed to card 1, may be the influence of the so-called 'associative refractory phase', mentioned in the literature review.

This argument may, however, not be valid for the following reasons:-

a) The Jewish samples showed a further drop in achievement fantasy scores from card 2 to card 3, so that the expected rise after the second card did not occur.

b) No significant difference was found to exist in the height of scores between cards 2 and 3 when looking at the English-speaking samples only.

It is only in the Afrikaans-speaking samples that such a 'refractory phase' is possible because here the "Farm Scene" obtained consistently lower achievement fantasy scores than the other two pictures. On the other hand, this result may be due to the differing attitude of the Afrikaners towards scenes depicting rural life, resulting in stories concerned with other themes than that of achievement.

It can be said in conclusion that the TAT-type cards administered each possess a disparate cue value as regards achievement fantasy. Provided that cards have been selected which seem to be reasonably suited to elicit achievement fantasy responses, this state of affairs may actually be preferable, for the following reasons:-

a) Widely differing contents (and, thus, cue values) of cards will force the subjects to give different imaginative stories in response to every card. Stereotyped fantasy will be avoided. It is, after all, generally assumed that achievement fantasy will be stimulated not only by a few isolated cues, but can occur in response to many diverse situations. And the situations depicted in the three cards utilized are vastly different:

two men/...

two men busy in a workshop; a girl with books in rural surroundings and a farming couple in the background; and, lastly, a boy sitting at a school desk, looking out of the picture.

b) Differing cue values of cards might allow more accurate distinctions to be made between various cultural groups. It is theoretically possible that one particular group may have such a large amount of achievement fantasy that its members will obtain fantasy scores on every card, regardless of its cue value. Another group may obtain positive scores on cards with high cue value only, and a third may have so little achievement fantasy that its members will rarely, if ever, obtain scores, this time no matter how high the cue value of the cards may be. One would not expect group differences in scores to be so distinctly different when the cue values of all cards were much alike.

8.2.4 The distribution of achievement fantasy scores

The assumption that achievement fantasy scores were normally distributed in the population was found to be undisputed in the literature, where parametric methods had been generally used.

It was, however, found in the course of the present study that this postulation could not be made as regards every one of the groups tested in South Africa. Three different statistical methods of investigating achievement fantasy scores proved conclusively that the score distributions of every single group did not approximate the normal probability curve within acceptable limits.

Two possible reasons can be advanced for this finding after a study of the relevant literature and the empirical results which were obtained:-

There/...

There seems to be an inherent weakness of the scoring system. Many stories cannot be scored for the presence of achievement fantasy whenever certain well-defined requirements are not fulfilled. This will tend to cause a positive skewness of the distribution curve. The added bimodality in the distribution curve of each sample is due to the fact that the curve will always tend to have two distinct peaks: one at zero, and the other one half-way between the score of +1 (minimum score when achievement fantasy is present), and +11 (maximum score for any one story). The distribution will thus always tend to show a distinct drop in the curve around the score of +1.

It is, furthermore, conceivable that the distribution of the curve can approach normality whenever there are extremely few stories without any scorable achievement imagery. This result can be expected in populations where achievement fantasy is very strong, as it may be the case in many U.S.- American groups. Since most investigations concerned with achievement fantasy have been carried out in the United States, it is not improbable that the score distribution peak around zero may be far less pronounced than seems to be the case in the South African samples. This, in turn, could cause the drop between the scores of zero and plus one to be of less importance. In that case the achievement fantasy scores could conceivably form a distribution approximating the normal curve.

The empirical findings in the present study tend to confirm the above explanations. The English-speaking samples which obtained the highest achievement fantasy scores also tended to obtain the frequency distribution which is closer to the normal curve than that of the Afrikaans-speaking samples. The question now arises whether the distribution of scores could conceivably be normal in the total population in spite of the fact that samples taken from it indicate the opposite. Two answers present themselves:-

a) All/...

a) All samples investigated were found to show this highly significant deviation from normality with great consistency in spite of the fact that they were taken from various cultural groups. One could thus reasonably expect that the same tendency would hold true for the populations from which the samples were drawn, in this case the white, urbanized, middle-class English- and Afrikaans-speaking population in South Africa.

b) It is not impossible that achievement fantasy may be normally distributed in some populations. It seems, however, that a population with relatively low achievement level (e.g., each one of the South African populations from which samples had been drawn) will not show a normal distribution when tested with the achievement fantasy measure. To test this assumption it would become necessary to drastically alter the whole scoring system so that it will be able to differentiate more strongly in the region of low achievement fantasy.

In all groups which are not very high in achievement fantasy the present scoring system will always tend towards a non-normal distribution. Since a radical alteration of the scoring system could possibly cause a profound change in many other aspects of the test, it was thought advisable to apply non-parametric statistical methods instead. These methods do not require the frequency distribution to approximate the normal curve.
A concomitant loss in the sensitivity of the measuring instrument can, unfortunately, not be avoided.

8.3/...

8.3 Conclusions concerning the questionnaire on achievement value orientations

In the course of his research on various 'needs', Murray (1938) remarked about his own questionnaires (of which the achievement value orientation questionnaire is one), that they had contributed little to his understanding of the problems investigated. Murray gave a number of reasons (reproduced in the literature survey) why this was likely to be the case.

In spite of Murray's reservations it was decided to use his questionnaire to measure achievement value orientations because it was the one most commonly employed and discussed in the literature.

This test has been investigated as regards a number of aspects:-

a) the possible occurrence of an 'acquiescent response set'
b) the degree of internal consistency
c) its relationship with a variety of other measures.

a)'Acquiescent response set' has been defined as a tendency to agree with positively-worded questionnaire items regardless of their content. This tendency, if present, could conceivably exert a strong influence on the scores of the achievement value orientation questionnaire, since all items are worded in a single, pro-achievement, direction.

In the present investigation, however, a positive finding is the fact that the test's validity is not appreciably influenced by 'acquiescent response set'. In spite of unilateral wording of items, 'acquiescent response set' appeared in only three out of seven reversible items. Furthermore, in the six groups investigated (differentiated according to language, sex, and educational level) none of the items showing 'acquiescent response set' appeared in more than one group each.

In fact/...

In fact, Afrikaans-speaking pupils of both sexes did not show any significant 'acquiescent response set' at all, even when the total scores of all reversible items were compared. In the English-speaking sample a similar addition of scores caused the difference to be significant in one out of four groups only.

As several authors had maintained that a tendency towards acquiescence would reflect authoritarian personality tendencies, additional evidence for the low influence of 'acquiescent response set' may lie in the absence of a significant correlation between the total scores of positively-worded items on the questionnaire and total scores on the F-scale, since the latter is assumed to measure authoritarianism.

b) The internal consistency of the questionnaire was investigated by making use of the Kuder-Richardson formula in order to obtain an index of the functional homogeneity of this test. Results obtained from an investigation of twelve different samples indicate that the internal consistency of the achievement value orientation questionnaire is fairly high.

c) The finding that achievement value orientation scores did not seem to be related to various personality traits (e.g., intelligence, authoritarianism, self rationalisation, and, on the whole, attitudes towards work habits, time, and dogmatism), seems to indicate that the achievement value orientation factor is relatively independent.

An indication that the questionnaire also possesses a satisfactory logical validity can be inferred from the finding that the majority of items on achievement value orientations managed to differentiate consistently and significantly between different cultural groups (Afrikaans- and English-speaking samples) in the expected direction.

8.4 Conclusions concerning the assessment of achievement behaviour

An attempt was made to judge the achievement behaviour of pupils by classifying the relevant comments of their teachers into different groups. In order to avoid individual bias, or errors of judges, the ratings of more than one teacher were taken. Subjects with contradictory statements as regards their achievement behaviour were excluded from the sample. The ratings had been made over a period of several years and were available on cumulative record cards. The consistency of ratings gave an indication whether the trait in question (achievement behaviour) could be taken to possess a satisfactory degree of constancy in the individual subjects.

It was attempted to assess achievement behaviour not so much in terms of academic success (since this was likely to be influenced by various uncontrollable factors), but rather by means of statements on the degree of over- or underachievement in any one subject.

The method used seemed to ensure that strong achievement behaviour in a subject was taken to exist only when it was found to be stable over time, as judged by several observers.

Since teachers are not trained psychologists, and, furthermore, as they had never been specifically asked to comment on this personality variable in their reports, the accuracy of the ratings could not be checked. On the whole, the accurate estimation of achievement behaviour in subjects will tend to be faced with difficulties which are hard to overcome.

8.5/...

8.5 Conclusions concerning the existence of the achievement syndrome

In the previous sections of this chapter it was shown that attempts at measuring the achievement syndrome factors met with various degrees of success. It was found that the two tests investigated in the present study produced results which were generally in accordance with findings cited in the relevant literature. Some restrictions were, however, found to be necessary in the case of the achievement fantasy measure: the attitude of subjects towards being tested had to be taken into account as well as the non-normal score distributions obtained in all samples tested.

On the whole, the investigation into the construction of the two tests proved to be a fruitful one, permitting an appraisal to be made of the achievement syndrome factors.

The question which now becomes relevant, concerns itself with experimental proof of the independence of these factors, as hypothesized prior to the empirical investigation. This question had been raised only once in the relevant literature (cf. Rosen, 1956), but, in addition to his findings, sufficient evidence in the literature was obtained that most correlations between any two measures of the achievement syndrome factors tended to be non-significant. Since most of these results had been obtained in the United States, the above question could be re-phrased as follows:-

Are there three independent achievement syndrome factors in the U.S.-American population only, or can this occur in other Western cultures, too ?

The comparisons between achievement fantasy scores and scores on the questionnaire for achievement value orientations showed that

no significant/...

no significant relationship existed between them as regards the total scores of both tests in all groups. This result was investigated in detail when each single questionnaire item was contrasted with the achievement fantasy score of the same subject. Here it was found that only one out of twelve questionnaire items showed any significant relationship, but that even this occurred in less than half the number of groups investigated. The general finding is therefore that these two achievement syndrome factors do not seem to be significantly related. In addition, the measures of these two achievement syndrome factors were, on the whole, not found to be related to the vast majority of other tests investigated. This can be taken as a further indication that the two factors in question seem to be independent.

The same absence of significant relationships was obtained between achievement fantasy scores and ratings of achievement behaviour. Neither were scores on the achievement value orientation questionnaire related to achievement behaviour. The latter was found not to be significantly related to other variables investigated (e.g., intelligence). Since this finding on the possible independence of the three achievement syndrome factors has been found to hold true for not only one, but for three different cultural groups (Jews, plus English- and Afrikaans-speaking Gentile Whites in South Africa), there is reason to assume that this independence could also exist in various other groups besides those investigated.

It is furthermore relevant in the present context to ask if the achievement syndrome will tend to manifest itself in the same way as regards every cultural group, or whether it will tend to show changes in the relative predominance of its factors in different groups. Should the latter be the case, it would be of interest to investigate whether such changes could be explained in terms of historical or economic knowledge about the group as gained from various sources, such as literature surveys and personal observations.

S.6/...

8.6 Conclusions concerning the confrontation of the achievement syndrome in different cultural groups (Hypothesis 8.8)

After having obtained empirical proof that the achievement syndrome may be seen as consisting of three independent factors, the question now needs to be raised whether the achievement syndrome tends to manifest itself without internal change in various groups or not. In other words: which additional information has to be obtained on the extent of the various factors to make the concept of the achievement syndrome a useful and valid one in psychological research?

In order to attempt an answer it is imperative to make a cross-cultural comparison between groups which are well-known as regards various psychological, economic, and historical factors, and which also show marked differences in areas which have a possible bearing on the various achievement syndrome factors. It would furthermore seem advisable that samples from any such cultural groups to be compared should be tested under as similar conditions as possible, and that economic, environmental, and educational levels should be equated to avoid spurious results.

It is very likely that any cross-cultural comparisons between groups living in different countries (e.g., between Germans and South Africans) will tend to produce inaccurate results because of the many extraneous factors which are not known or which cannot be equated.

A cross-cultural investigation of the achievement syndrome in various White South African groups did, on the other hand, present the author with an opportunity which had few of the above drawbacks and many advantages. Here the possibility existed of testing various samples under very similar conditions; samples which could, on the whole, be equated as regards geographic location, degree of urbanisation, and educational level.

During/...

During the course of the present investigation, samples of Afrikaans-speaking subjects were compared with samples from the English-speaking group, matched as regards the categories mentioned above.

Inside the English-speaking samples a distinction was made between Gentile and Jewish subjects. These were contrasted as regards the different tests of the achievement syndrome factors before the main comparison - that between English- and Afrikaans-speaking subjects - was embarked upon.

8.6.1 Comparisons between English-speaking Gentiles and Jews

The empirical results showed that Jews tended to obtain lower scores on the achievement fantasy measure, especially on card 3 ("Boy and Book"), where the difference was significant at the 1% - level of confidence. However, when the average scores of all three cards were compared, the difference ceased to be statistically significant. The tendency towards obtaining lower scores in the Jewish sample had not been anticipated. It could possibly be due to the fact that the Jewish sample, on the whole, did not take the writing of imaginative stories very seriously. The author found that many pupils in the Jewish school adopted a distinctly frivolous attitude towards writing the test which is very likely to have had a negative effect on the fantasy score level.

Turning to the aspect of achievement value orientations, it was found that Jewish subjects gave a slightly higher percentage of pro-achievement answers in nine out of twelve questionnaire items. The differences, however, reached statistical significance in one item only. More, Jewish subjects maintained more often that they

"worked/...

"worked like slaves until satisfied with the result". On the other hand, they maintained significantly less often that "there is no substitute for great achievement".

It can be said in conclusion that the achievement syndrome factors tested (achievement fantasy and achievement value orientations) tended to be manifested by the two English-speaking groups in a fairly similar manner. This similarity becomes all the more evident when both of these groups are contrasted with the Afrikaans-speaking subjects:-

8.6.2 Comparisons between English- and Afrikaans-speaking subjects

The expectations that English-speaking Whites would show a significantly larger amount of projectively measured achievement fantasy than their Afrikaans-speaking compatriots was confirmed at the 0.1% - level of confidence when the total scores of all three cards were compared.

On the grounds of this highly significant finding the hypothesis may be advanced that in the Afrikaans-speaking sample, the dynamic orientation to achieve is not as high as in the English-speaking groups. This can, of course, only be true if the achievement fantasy measure possesses a sufficiently high degree of validity. The attempts at validating it in the sense of McClelland's 'relational fertility' is discussed in the last part of this section.

The difference between the groups is, however, so large and so consistent that one may conclude that differences in dynamic achievement do exist, at least between students and middle-class pupils in the Western Cape, among whom the present investigation was conducted.

In the field/...

In the field of achievement value orientations Afrikaners gave higher percentages of pro-achievement answers in all but two questionnaire items, when compared with all English-speaking subjects (Gentile and Jewish). The difference was also significant when the total scores of these groups were compared. In six items these differences were statistically significant (two at the 5%- and four at the 1%-level of confidence) when contrasted with either the English-speaking Gentiles, with the Jews, or with both groups taken jointly.

Afrikaans-speaking subjects maintained significantly more often: -

a) that they were driven by an unslaked ambition
b) that there was no substitute for great achievement
c) that they did not indulge in daydreaming when working on a job
d) that they worked like slaves until they were satisfied
e) that they enjoyed work as much as play
f) that they liked best that which lay beyond their reach
g) that ambition was the parent of many virtues

The major hypotheses about the relationship between English- and Afrikaans-speaking subjects were thus confirmed:-

a) Afrikaans-speaking subjects showed significantly less achievement fantasy (on the achievement fantasy measure) than the English-speaking subjects tested, whether Gentile or Jewish.

b) On the other hand, Afrikaans-speaking subjects consciously asserted far more frequently that they possessed strong achievement value orientations.

It can therefore be stated that the empirically measurable factors of the achievement syndrome (achievement fantasy and achievement value orientations) manifested themselves to a significantly different extent in the two language groups tested.

These differences/...

These differences are all the more important in view of the fact that no significant differences as regards their scores on the achievement fantasy measure were found to exist between:-

a) all students when compared with all pupils

b) all students in the arts faculty when compared with all students in the science faculty

c) all males compared with all females.

Similar negative results were obtained when testing the above groups with the questionnaire on achievement value orientations. In this case it was found that students did not give a significantly different percentage of pro-achievement answers to items as compared with high school pupils. Neither did arts faculty students differ from science faculty students in this respect. Significant differences only emerged in the male-female comparisons: - Males maintained significantly more often that

a) they thought there was no substitute for great achievement
b) they felt the spirit of competition in most of their activities
c) they saw ambition as being the parent of many virtues.

Although these sex differences were to be expected (since Western society is commonly thought of as instilling higher achievement value orientations into males than into females), the results found in the case of all other comparisons serve to highlight the only significant differences which occurred consistently: those between the English-speaking and the Afrikaans-speaking samples.

A survey of literature has shown that Afrikaners have, to date, taken little part as entrepreneurs in the economic activity of South Africa. The reasons for this low involvement can be traced back to the 19th century, when the patriarchal and rural way of life predominated. Historical factors - such as the discovery of

gold/...

gold in the Transvaal and its concomitant influx of "Uitlanders" - may have strengthened this aversion against participation in business still more. The historian Marquard stated,

> "The contribution of English-speaking people to the development of South Africa is very great. The Afrikaner of the nineteenth century opened up the country and settled it, but for many years his main contribution to the material wealth of South Africa was agricultural. English-speaking South Africans were responsible for mining and industrial development, for railway construction, for the establishment of towns and cities, for commerce and banking, for shipping and harbour construction - in fact, for changing South Africa from a backward agricultural community into a semi-industrial modern state. In this process, moreover, the enterprise, hard work, and capital of the Jews played a very considerable part."
>
> (Marquard, 1962, pp. 72-73)

Since McClelland (1953, 1961) has shown that the taking of calculated risks, which is at the basis of entrepreneurial activity, tended to correlate positively and consistently with scores on his n Achievement measure, it was to be expected that Afrikaners would show significantly less achievement fantasy than their English-speaking counterparts, both Gentile and Jewish, since the latter were traditionally more involved in business activity.

The above expectations were clearly and constantly confirmed by the empirical findings in the present investigation.

A literature survey on the differences between Afrikaans- and English-speaking Whites in South Africa furthermore showed that the church affiliation of the latter group was predominantly non-Calvinistic in contrast with the Afrikaans-speaking group which is almost exclusively a strong adherent of the Calvinistic faith.

Since the/...

Since the days of Max Weber (1864-1920) the possible influence of Calvinistic doctrine on the spirit of modern Capitalism has been investigated. In spite of divergent views on this theory it is generally conceded that Calvinism places great emphasis on achievement value orientations in its followers, to a far greater extent than most other religious beliefs.

The lack of interrelationship between Calvinism and entrepreneurship in Afrikaans-speaking South Africans has already been mentioned in the literature survey. It is likely that Calvinism in South Africa is different from European Calvinism in this respect, but in spite of this, the great emphasis placed on the desirability of positive achievement values tends to be a universal aspect of Calvinism.

Keeping in mind the strong influence which the Calvinistic church has in the life of most Afrikaners, together with strong tendencies towards ethnocentrism (as evidenced by significantly higher scores on the F-scale), it is to be expected that Afrikaners will subscribe to pro-achievement answers on the questionnaire to a significantly greater extent than the English-speaking sample tested.

Again, this expectation, formulated from a historical and sociological survey of literature, was confirmed at a highly significant level of confidence in the present investigation.

It can be concluded that, in the South African context, the achievement syndrome can manifest itself in two distinctly different ways:-

a) In the Afrikaans-speaking sample there is a tendency for relatively low achievement fantasy scores to go hand in hand with relatively high achievement value orientations.
b) In the English-speaking sample the opposite trend is clearly shown: a relatively high amount of achievement fantasy coupled with relatively weaker cognitive achievement value orientations.

8.7/...

8.7 Overall conclusions

The empirical results obtained from the testing of achievement syndrome factors (by utilizing sociologically-distinct criterion groups) were found to corroborate previously held assumptions about achievement syndrome measures as well as about certain cultural groups in South Africa.

The measures were generally found to fulfil the requirements of psychological test construction as regards the characteristics investigated, although reservations were necessary in the case of some aspects. Each of the three measures was found suitable for an empirical investigation of its corresponding achievement syndrome factor.

Consistent findings indicated that the three achievement syndrome measures did not correlate with one another. This result had been anticipated. Assuming that all three measures are valid, a case can be made for the mutual independence of the three achievement syndrome factors.

Furthermore, expectations were confirmed that achievement syndrome tests were not significantly related to a variety of other measures (e.g., measures of intelligence and of self rationalization). These consistent results allow the inference to be made that achievement syndrome factors are also independent of other personality variables.

Since all/...

Since all of the above results were found to hold true in diverse groups, it is not impossible that the achievement syndrome, with its three factors, may exist in a variety of cultures.

Cross-cultural comparison showed that statements concerning the mere presence of an achievement syndrome in any one group were, however, not enough. Additional information was required about the relative predominance of its three factors, since this seemed to vary significantly between cultural groups.

It was found that the relative predominance of the constituent achievement syndrome factors in different groups could be inferred not only from information gained through the application of appropriate psychological measures, but also, independently, from relevant data in the sphere of history, sociology and economics.

APPENDIX

1.1 ENGLISH INSTRUCTIONS FOR McCLELLAND TAT

This is a test of your creative imagination. A number of pictures will be projected on the screen before you. You will have twenty seconds to look at the picture and then about four minutes to make up a story about it. Notice that there is one page for each picture. The same four questions are asked. They will guide your thinking and enable you to cover all the elements of a plot in the time allotted. Plan to spend about a minute on each question. I will keep time and tell you when it is about time to go on to the next question for each story. You will have a little time to finish your story before the next picture is shown.

Obviously there are no right or wrong answers, so you may feel free to make up any kind of a story about the pictures that you choose. Try to make them vivid and dramatic, for this is a test of creative imagination. Do not merely describe the picture you see. Tell a story about it. Work as fast as you can in order to finish in time. Make them interesting. Are there any questions? If you need more space for any question, use the reverse side.

1.2 AFRIKAANS TRANSLATION OF INSTRUCTIONS FOR McCLELLAND - TAT

Hierdie is 'n toets van julle skeppende verbeelding. 'n Aantal prente sal voor julle op die doek geprojekteer word. Julle kry twintig sekondes om na die prent te kyk en dan omtrent vier minute om 'n storie daaroor neer te skryf. Let op dat daar een bladsy vir elke prent is. Dieselfde vrae word elke keer gevra. Hulle sal julle gedagtes lei en dit moontlik maak om alle bestanddele van 'n storie in die beskikbare tyd te dek. Spandeer omtrent 'n minuut aan elke vraag. Ek sal vir julle sê wanneer dit tyd is om aan te gaan na die volgende vraag vir elke storie. Julle sal 'n bietjie tyd hê om die storie klaar te maak voordat die volgende prent vertoon word.

Daar is vanselfsprekend geen regte of verkeerde antwoorde nie, dus staan dit julle vry om enige storie oor die prente uit te dink, wat julle ookal verkies. Probeer om die stories so lewendig en dramaties moontlik te maak, want dis 'n toets van skeppende verbeelding. Moenie net die prentjie beskryf wat julle sien nie. Vertel 'n storie daaromtrent. Werk so vinnig as moontlik om betyds klaar te kry. Maak hulle interessant.

Is daar enige vrae? As julle meer plek vir enige vraag benodig, gebruik maar die agterkant van die papier.

1.3 GERMAN TRANSLATION OF INSTRUCTIONS FOR McCLELLAND - TAT

Dies ist ein Test Ihrer schöpferischen Einbildungskraft. Einige Bilder werden vor Ihnen an die Wand projiziert. Sie haben zwanzig Sekunden lang Zeit um jedes Bild anzusehen und dann ungefähr vier Minuten, um eine Geschichte darüber auszudenken. Beachten Sie bitte, dass eine Seite pro Bild vorgesehen ist. Dieselben vier Fragen werden gestellt, die Ihr Denken leiten werden und es Ihnen ermöglichen, alle Elemente einer Geschichte in der zugelassenen Zeit zu decken. Pro Frage soll ungefähr eine Minute gebraucht werden.

Ich werde die Zeit messen und Ihnen sagen, wann Sie zur nächsten Frage übergehen sollen. Bevor das nächste Bild gezeigt wird, haben Sie etwas Zeit, Ihre Geschichte zu beenden.

Selbstverständlich gibt es keine richtigen oder verkehrten Antworten. Es wird Ihnen deshalb vollkommen freigelassen, irgendeine Geschichte nach Ihrer Wahl über jedes der Bilder zu erfinden. Versuchen Sie, diese so lebendig und dramatisch wie möglich zu gestalten, weil dies ein Test Ihrer schöpferischen Einbildungskraft ist. Beschreiben Sie nicht nur das Bild, welches Sie sehen. Erzählen Sie eine Geschichte darüber.

Arbeiten Sie bitte so rasch wie möglich, um zeitig fertig zu sein. Machen Sie die Geschichten interessant.

Gibt es noch Fragen?

Wenn Sie noch mehr Platz für irgendeine Frage brauchen, können Sie die Rückseite benutzen.

1.4 STATEMENT ASKING THE GERMAN TESTEES FOR THEIR CO-OPERATION DURING THE FOLLOWING TESTS

Zweck der Untersuchung:

Sämtliche Ihnen vorgelegte Fragebogen und Tests sollen dazu verwendet werden, mögliche Kulturunterschiede zwischen deutschen und südafrikanischen Schülern und Studenten festzustellen. Vor allem interessiert hier der Unterschied in Bezug auf Ansichten über die Zukunft.

Dieses Forschungsvorhaben der Universität Kapstadt kann nur mit Ihrer bereitwilligen und ehrlichen Unterstützung und Mitarbeit stattfinden. Deshalb werden Sie gebeten, alle Fragen „nach bestem Wissen und Gewissen" zu beantworten.

Nehmen Sie bitte nur vollkommen freiwillig teil, und hören Sie lieber vorzeitig auf, wenn Sie sich ausserstande sehen, alle Fragen offen und ehrlich zu beantworten.

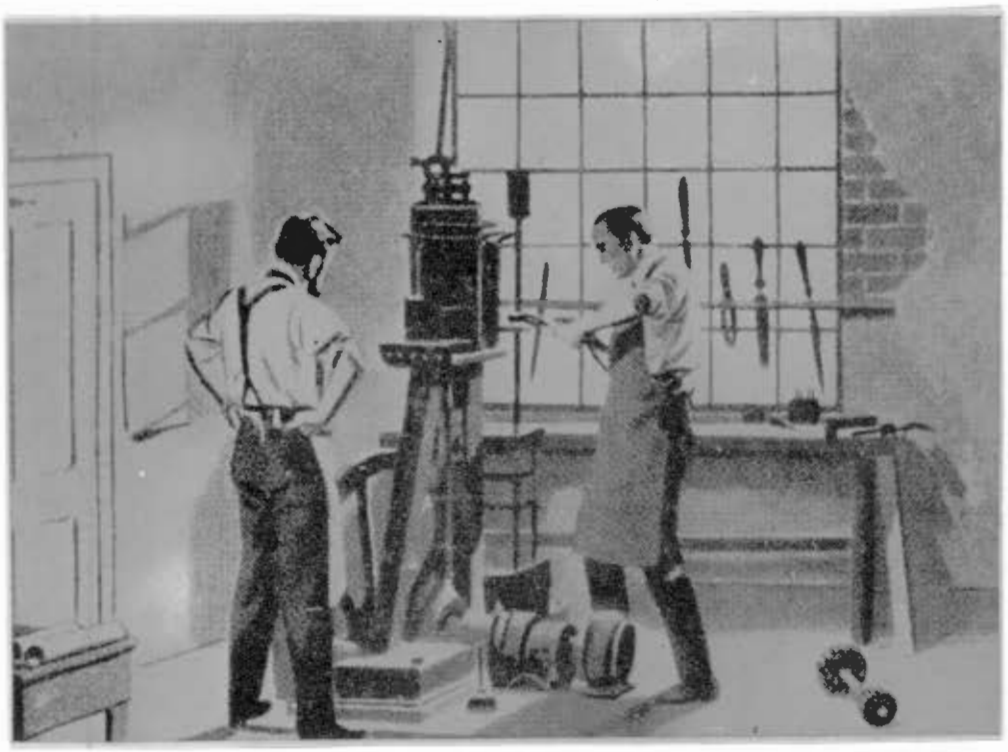
Vielen Dank für Ihre Mitarbeit!

Helmut Korsbach
Psychologisches Institut,
Universität Kapstadt,
Südafrika.

APPENDIX II TAT - TYPE PICTURES USED FOR TESTING

CARD 1

"2 Workers"

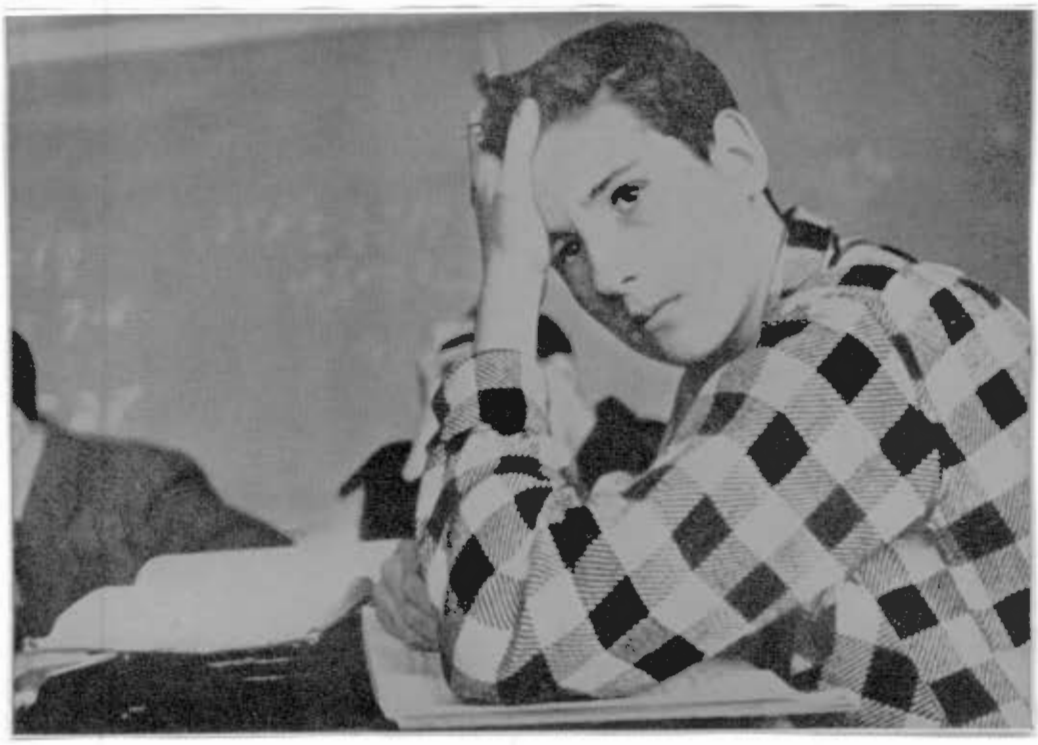


CARD 2

"Farm Scene"

CARD 3

"Boy and Book"



APPENDIX III

Samples of imaginative stories which were evaluated for Achievement and Affiliation fantasy

3.1 English sample

3.2 Afrikaans sample

3.3 German sample

ASK male 38

3.1 **English sample**

Card 1 "2 Workers"

What is happening ? Who are the persons ?

This John is the machine we designed and it'll do its job. John and I are motor racing enthusiasts

What has led up to this situation ? That is, what has happened in the past ?

we've been unable to obtain necessary equipment for maintaining our two engines.

What is being thought ? What is wanted ? By whom ?

This is our last bid to keep down costs - we'll be able to regrind valves etc and if necessary rebore the engine with this new cache.

What will happen ? What will be done ?

And then we'll be back to Monaco, Aintree ? Silverstone Nurburgring, Monza 5th victory in our group.

ASK male 38

Card 2 "Farm Scene"

What is happening ? Who are the persons ?

This is June, and she's standing in the middle of the field with her books, she's run away from school.

What has led up to this situation ? That is, what has happened in the past ?

Frustration, and a message from above have caused her to run - and there she stands - in a background symbolizing of her future.

What is being thought ? What is wanted ? By whom ?

June is off to New Guinea a month or so as assistant to a missionary — soon the sweating back and creating plough will be real.

What will happen ? What will be done ?

She'll soon grow to hate it and back she'll come she learnt a lesson and got malaria

38 | ASK male

Card 3 "Boy and Book"

What is happening ? Who are the persons ?

What is all this leading to? Here I am writing exams yet again.

What has led up to this situation ? That is, what has happened in the past ?

The exams mark the end of my education. I'm not going to Varsity. I've failed everytp till now.

What is being thought ? What is wanted ? By whom ?

As soon as this over I'm ong to have a good meal ack my things and go home by the evening train

What will happen ? What will be done ?

I'm going to go north - to New York - and there I'm ong to ~~become~~ join the ral Baseball team - New York ves - and who knows.

E.S.D. Mathebe

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3.2 Afrikaans sample

Card 1 "2 Workers"

Wat gebeur? Wie is die persone?

Meganikus en sy baas Hulle is besig om in kwinte-vaartuig te
kan, hoewel nog heel aan die begin stadium.

Wat het aanleiding gegee tot hierdie situasie? D.w.s. wat het in die verlede gebeur?

Die Meganikus het die blink ingewing gekry
waarop gelon word.

Wat word gedink? Wat word verlang? Deur wie?

Hulle kantemfleer om die kukas wat op die vloer lê
mon in die masjien te plaas.

Wat sal gebeur? Wat sal gedoen word?

Die affêre gaan deur die dag skiet,
Hulle verwag ook so iets
Dan val die een by venster uit
- ander met reer op die vloer.

Card 2 "Farm Scene"

Wat gebeur? Wie is die persone?

Man en vrou met klein stuk grand in Italie
Vrou kom self die man om huistoe te kom
sy het in Bybel in hand.
Hy wil net klaar ploeg.

Wat het aanleiding gegee tot hierdie situasie? D.w.s. wat het in die verlede gebeur?

Hulle is maar baie onbangs getrou maar hy het veel hulle skuld nog baie geld en dat daar gewerk moet word.

Wat word gedink? Wat word verlang? Deur wie?

Die Vrou wil meer liefde hê van die man gesprek man wat meer te "konversieer" is.

Wat sal gebeur? Wat sal gedoen word?

Dit gaan te donker word en sy sal die kos nog tuis warm hê dan kom hy moeg is, eet lekker, liefkoos haar in bietjie en gaan slaap, doodmoeg.

Card 3 "Boy and Book"

Wat gebeur? Wie is die persone?

Klaskamer waar Jong seuns moontlik in
tot 9 of 10 sit maar Seun op voorgrond is gedagte
vaal of in vakansie voorruiteis.

Wat het aanleiding gegee tot hierdie situasie? D.w.s. wat het in die
verlede gebeur?
sy vader se mededele dat hy (seun) sal moet
saam werk vir vakansie.

Wat word gedink? Wat word verlang? Deur wie?

ie Seun oorweeg die moontlikheid om werk te
nthuik.

Wat sal gebeur? Wat sal gedoen word?

ie Onderwyser gaan hom nou mon Sukkeng en
- sal hy nog meer ontevrede wees. Daardoor
k.

(1) V.Tu 1811

3.3 German sample
Card 1 "2 Workers"

1. Was geschieht ? Wer sind die Personen ?

2 Männer bei der Arbeit an einem völlig veralteten Dieselmotor.

2. Wie ist es zu dieser Lage gekommen ? d.h. was ist vorher geschehen ?

Um einen Motor reparieren zu können, muß er zunächst einen Fehler haben.

3. Was wird gedacht ? Was wird verlangt ? Von wem ?

Die beiden Männer werden wahrscheinlich Schlosser sein, damit sie genügende Kenntnisse haben.

4. Was wird geschehen ? Was wird getan werden ?

Der Motor wird repariert werden, und wieder funktionsfähig sein.

Card 2 "Farm Scene"

1. Was geschieht ? Wer sind die Personen ?

ein Mädchen, mit der Bibel unter dem Arm, ein Bauer in der Feldarbeit mit seinem Pferd und rechts ein Bild, nicht klar zu erkennen, wahrscheinlich zwei Frauen.

2. Wie ist es zu dieser Lage gekommen ? d.h. was ist vorher geschehen ?

Die Frauen kehren, anscheinend gerade zurück vom Kirchgang.

3. Was wird gedacht ? Was wird verlangt ? Von wem ?

Gedanken des Mädchens an die Predigt des Pastors!

4. Was wird geschehen ? Was wird getan werden ?

Card 3 "Boy and Book"

1. Was geschieht ? Wer sind die Personen ?

Eine Klassenarbeit in einem Klassenraum. Einige Schüler. Der Schüler links im Bild ist die Hauptperson. Er scheint nicht angestrengt mitzuarbeiten, sondern andere Gedanken zu haben.

2. Wie ist es zu dieser Lage gekommen ? d.h. was ist vorher geschehen ?

Vorher wird er Wahrscheinlich nicht genügend arbeiten haben, so daß er jetzt nicht Bescheid weiß.

3. Was wird gedacht ? Was wird verlangt ? Von wem ?

Gedacht wird an alles andere als an das Arbeitsthema. Verlangt wird zuviel von dem Schüler

4. Was wird geschehen ? Was wird getan werden ?

Der Schüler bekommt eine fünf.

APPENDIX IV

Criteria for scoring the various sub-categories of achievement fantasy

McClelland et al. (1953) stipulated that Achievement Imagery could only be scored if one of the three following criteria were met:

"1. Competition with a standard of excellence

(a) One of the characters in the story is engaged in some competetive activity where winning or doing well, or doing better than others is actually stated as the primary concern.

(b) If one of the characters in the story is engaged in some competitive activity, but the desire to win or do as well as or better than others is not implicitly stated, then

(1) affective concern over goal attainment, and

(2) certain types of Instrumental Activity

are considered as indicating that the desire to compete successfully with a standard of excellence is implicit in the story.

(c) Often the standard of excellence involves no competition with others but meeting self-imposed requirements of good performance. In this case, in order to score for Ai what is needed are words to the effect that a good, thorough, workmanlike job, and so forth is desired, or statements showing the affective concern or Instrumental Activity that will allow such an inference.

"2. Unique accomplishment

One of the characters is involved in accomplishing other than a run-of-the-mill daily task which will mark him as a personal success ... There need be no explicit statement of concern over the outcome or direct statement

that/ ....

that a good job is wanted when someone is working on a new invention or is in the process of doing something unique which will be generally accepted as a personal accomplishment.

3. Long-term involvement

One of the characters is involved in attainment of a long-term achievement goal. Being a success in life, becoming a machinist, doctor, lawyer, successful businessman, and so forth, are all examples of career involvement which permit the inference of competition with a standard of excellence unless it is made clear that another goal is primary, e.g., food for the kids, personal security.

The relationship of a specific task to a long-term achievement goal must be clearly stated and not inferred by the scorer when it does not fulfill criterion (1) above.

Only stories which fulfill at least one of the above categories are scored for achievement-related subcategories.

Doubtful Achievement Imagery (TI)

Stories containing some reference to achievement but which fail to meet one of the three criteria for Achievement Imagery are scored Doubtful Achievement Imagery (TI) and are not scored further for achievement-related subcategories. The T chosen as a symbol for this category indicates that most frequently the stories to be classified as doubtful are ones which tell of some character engaged in a commonplace task or solving a routine problem. Whenever there is doubt about whether or not one of the three criteria for Achievement Imagery has been met, and the story is not totally unrelated to achievement, it is classified TI.

Unrelated Imagery (UI)

Stories in which there is no reference to an achievement goal are scored unrelated and not scored further.

Stated Need for Achievement (N)

Someone in the story states the desire to reach an achievement goal. Expressions such as, "He wants to be a doctor," "He wants to finish the painting", "He hopes to succeed" are the clearest examples. Need is only scored once per story, even when it appears more than once. Need is not inferred from Instrumental Activity. It is only scored when there is a definite statement of motivation by one of the characters.

Instrumental Activity with various outcomes (I^+, I?, I^-)

Overt or mental activity by one of the characters in the story indicating that something is being done about attaining the achievement goal is considered Instrumental Activity and is scored I+, I? or I- to indicate whether the outcome of the Instrumental activity is successful, doubtful or unsuccessful. There must be an actual statement of activity WITHIN THE STORY independent of both the original statement of the situation and the final outcome of the story.

Anticipatory Goal States (Ga+, Ga-)

Someone in the story anticipates goal attainment or frustration and failure, (Ga+ and Ga-, respectively). It is scored positive when someone is thinking about the success he will achieve...It is scored negative when someone is worried about failure... Achievement-related anticipations must be related to the achievement goal of the story.

Obstacles/...

Obstacles or Blocks (Bp, Bw)

Stories are scored for obstacles when the progress of goal-directed activity is blocked or hindered in some way... If the obstacle is located within the individual, it is scored Personal Obstacle (Bp). When the block is part of the environment or when there is some doubt about whether it is located in the individual or in the world, Environmental Obstacle (Bw) is scored. Both Bp and Bw may occur and be scored in the same story.

Nurturant Press (Nup)

Forces in the story, personal in source, which aid the character in the story who is engaged in on-going achievement-related activity are scored Nurturant Press (Nup). Someone aids, sympathizes with, or encourages the person striving for achievement.

Affective States (G+, G-)

Affective (emotional) states associated with goal attainment, active mastery, or frustration of the achievement-directed activity are scored G. When someone in the story experiences (1) a positive affective state associated with active mastery or definite accomplishment, (e.g., "He enjoys painting", "He is proud of his accomplishment",) or,

(2) definite objective benefits as a result of successful achievement which allow the inference of positive affect, ("His genius is acknowledged by millions"), G+ is scored.

G+ indicates more than successful Instrumental Activity. G+ is scored only once per story.

When someone in the story experiences
(1) a negative affective state associated with failure to attain an achievement goal, ("He is disturbed over his inability"), or (2) the objective concomitants of complete failure and deprivation which allow the inference of negative affect, ("He became a drunken bum"), G- is scored. It is also only scored once per story. Both positive and negative affect may appear in the same story.

Achievement Thema (Ach Th.)

Achievement Thema is scored when the Achievement Imagery is elaborated in such a manner that it becomes the central plot or thema of the story. The scorer must decide whether or not the whole story is an elaboration of the achievement behaviour sequence. In doubt, Ach Th. is not scored."

(McClelland et al., 1953, pp. 110 - 136)

APPENDIX V

Questionnaire items administered

5.1 QUESTIONNAIRE ITEMS ADMINISTERED TO ENGLISH-SPEAKING GROUPS

Instructions:

The following questionnaire is being investigated for research purposes.

Please indicate, to the best of your ability, which of the following statements you consider to be true and which not. Put a ring around the word TRUE if you feel that, on the whole, the statement is true; put a ring round the word FALSE if you feel that, on the whole, the statement is not true.

101. A person has to live pretty much for to-day and let tomorrow take care of itself.

102. In times like these, a person must consider only his own happiness.

103. A person who does not believe in some great cause has not really lived.

104. In spite of what some people say, the lot of the average man is getting worse and not better.

105. Planning makes a person unhappy because your plans never work out anyway.

106. There is no such thing as a really permanent friendship. Your friends change with circumstances.

107. When a man is born, the success he is going to have is already on the cards, so he might as well accept and not fight against it.

108. There is hardly any such thing as good luck - that is something people have to make for themselves.

109. It is remarkable how prayer influences the way things turn out.

110. People do not really know what they mean when they talk of "eternity".

111. It is all very well to talk of ideals but it is practical matters of fact that count in the end.

112. There is no doubt that love is an important factor in one's choice of a marriage partner, but other, more practical factors are of equal importance.

113. Children should be discouraged from day-dreaming.

114. It is a good philosophy which claims that: "They also serve who only stand and wait".

115. There are some people, like great artists and scientists, who can be forgiven for not being considerate to others, kind to the poor, etc.

116. The role of the school is to prepare children for their careers.

117. The school curriculum is overloaded with academic items and does not have enough subjects that are of practical use in life.

118. One should try to remain in the same country as one's parents.

119. The secret of happiness is not expecting too much out of life and being content with what comes your way.

120. A person who thinks primarily of his own happiness is beneath contempt.

121. If a person is to get anywhere in life it is sometimes necessary to gamble "everything or nothing".

122. To achieve one's happiness in the future it is often necessary to put up with a lot of unhappiness in the present.

123. It is only natural for a young person to be confident about the future.

124. Man on his own is a helpless and miserable creature.

125. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

126. I am driven to ever greater efforts by an unslaked ambition.

127. I feel that nothing else which life can offer is a substitute for great achievement.

128. I feel that my future peace and self-respect depend on my accomplishing some notable piece of work.

129. I set difficult goals for myself which I attempt to reach.

130. I work with energy at the job that lies before me instead of dreaming about the future.

131. When my own interests are at stake, I become entirely concentrated upon my job and forget my obligations to others.

132. I enjoy relaxation wholeheartedly only when it follows the successful completion of a substantial piece of work.

133. I feel the spirit of competition in most of my activities.

134. I work like a slave at everything I undertake until I am satisfied with the result.

135. I enjoy work as much as play.

136. I like best that which lies beyond my reach.

137. Ambition is the parent of many virtues.

138. I often have to wait for "the mood to strike me" or for "an inspiration" before starting a task.

139. My study periods are often too short for me to get "warmed up".

140. My periods of study are too often interrupted by outside interference such as telephone calls, visitors and distracting noises.

141. I find it hard to force myself to finish work by a certain time, under pressure.

142. I plan out the answer to an essay-type examination question before starting to write the answer.

143. I feel it is necessary to make summaries of lectures for myself.

144. When studying a book, I read every part with equal thoroughness.

145. I find that I can work on an essay only when I know that it must be handed in on a certain date.

146. I find it easy to stick to a certain schedule of work once I have started it.

147. I have a pretty definite idea of what I will be doing next summer.

148. I feel that I spend too much time on some things and not enough on others.

149. I like to save a proportion of my allowance "just in case".

150. I feel that I am pressed for time more than most people.

151. I have a poor memory for past events in my life.

152. I have difficulty in remembering the date on which things happen.

153. I have enough time to accomplish the things I most want to do.

154. I have memories of childhood events that seem to have taken place only yesterday.

155. I sometimes feel we should have been better off if clocks had never been invented.

156. It irritates me very much to have a watch or clock which is off by several minutes every day or so.

157. I feel uneasy when I am not certain of the time.

158. I usually have a pretty accurate idea of what time it is.

159. My childhood days seem very unreal to me.

160. I become impatient if I have to wait five minutes for someone.

161. I feel I tend to waste time and spend it uselessly.

I62. I feel guilty if I sleep late in the morning.

AFRIKAANS TRANSLATION OF ATTITUDE QUESTIONNAIRES

Vraelys oor studente se houdings

Dui asseblief tot die beste van u vermoë aan watter van die volgende stellings u as reg of verkeerd beskou. Trek 'n kring om die woord REG as u voel dat die stelling oor die algemeen waar is. Trek 'n kring om die woord VERKEERD as u voel dat die stelling oor die algemeen onwaar is.

101. 'n Mens moet hoofsaaklik vir die hede lewe en jou nie oor more bekommer nie.

102. 'n Mens behoort vandag net jou eie geluk in ag te neem.

103. Iemand wat aan geen groot ideaal glo nie het nie werklik geleef nie.

104. Tenspyte van wat sommige mense sê raak die lot van die gewone mens slegter en nie beter nie.

105. Beplanning maak 'n mens ongelukkig omdat jou planne in elk geval nooit uitwerk nie.

106. Daar is nie soiets soos 'n werklike permanente vriendskap nie. 'n Mens se vriende verander volgens omstandighede.

107. Wanneer 'n mens gebore word, is alle sukses wat jy sal hê reeds bepaal; dus kan hy dit netsowel aanvaar en nie daarteen stry nie.

108. Daar is feitlik nie soiets soos 'n gelukskoot nie - dis iets wat mense vir hulleself moet maak.

109. Dis verbasend hóe gebed die verloop van dinge beinvoed.

110. Mense weet nie regtig wat hulle bedoel as hulle van "ewigheid" praat nie.

111. Dis baie mooi om van ideale te praat, maar dis die praktiese feite wat uiteindelik tel.

112. Daar is geen twyfel dat liefde 'n belangrike faktor by die keuse van 'n huweliksmaat is nie, maar ander, meer praktiese faktore is van swegroot belang.

113. Dagdrome by kinders behoort ontmoedig te word.

114. Dis 'n goeie lewensbeskouing wat beweer : "Diegene wat net staan en wag, dien ook".

115. Daar is sommige mense, soos groot kunstenaars en wetenskaplikes wat vergewe kan word as hulle nie bedagsaam is teenoor andere nie, vriendelik is vir die armes nie, ens.

116. Die rol van die skool is om kinders vir hulle loopbane voor te berei.

117. Die skoolsillabus is oorlaai met akademiese vakke en bevat nie genoeg wat van praktiese waarde in die lewe is nie.

118. 'n Mens behoort in dieselfde land as jou ouers te bly.

119. Die geheim van geluk is om nie te veel van die lewe te verwag nie en om tevrede te wees met die geleenthede wat jy teë kom.

120. 'n Persoon wat in die eerste plek besorgd is oor sy eie geluk, is meer as veragtelik.

121. As 'n mens iets in die lewe wil bereik is dit soms nodig om alles vir baie min te waag.

122. Om 'n mens se geluk in die toekoms te verseker is dit dikwels nodig om baie ongelukkigheid in die hede te verduur.

123. Dis heeltemaal natuurlik dat 'n jongmens optimisties oor die toekoms voel.

124. Die mens heeltemaal op sy eie is 'n hulpelose en ellendige skepsel.

125. Die lewe kry eers betekenis wanneer 'n mens jou toewy aan 'n ideaal of doelstelling.

126. Ek word deur 'n onblusbare ambisie aangedryf tot altyd groter pogings.

127. Ek voel dat niks wat die lewe kan bied 'n plaasvervanger kan wees vir groot prestasies nie.

128. Ek voel dat my toekomstige vrede en selfrespek afhanklik is daarvan dat ek een of ander belangrike stuk werk uitvoer.

129. Ek stel vir myself moeilike mikpunte wat ek probeer bereik.

130. Ek span my in om die werk voor hande te voltooi, in plaas van om oor die toekoms te droom.

131. As my belange op die spel is, konsentreer ek suiwer op my werk en vergeet van my verpligtings teenoor andere.

132. Ek geniet slegs ontspanning heelhartiglik wanneer ek eers 'n groot stuk werk suksesvol votooi het.

133. By meeste van my aktiwiteite ervaar ek 'n gees van kompetisie.

134. Ek werk soos 'n slaaf aan enigiets wat ek onderneem totdat ek met die resultaat tevrede is.

135. Ek geniet werk netsoveel as plesier.

136. Ek hou meeste van daardie dinge wat buite my bereik is.

137. Ambisie is die oorsprong van vele deugde.

138. Ek moet dikwels wag om "in die regte luim" te kom, voordat ek met 'n taak begin.

139. My studietye is dikwels te kort om "aan die gang te kom" en om te konsentreer.

140. My studietye word dikwels onderbreek deur steurings van buite, soos telefoonoproepe, besoekers en steurende geraas.

141. Ek vind dit moeilik om my werk binne 'n bepaalde tydperk klaar te kry as ek onder druk is.

142. Ek beplan die antwoord van 'n opstel-tipe eksamen voordat ek begin om dit neer te skryf.

143. Ek voel dat dit nodig is om opsommings van lesings vir myself te maak.

144. Ek lees elke deel van 'n boek wat ek bestudeer ewe noukeurig deur.

145. Ek vind dat ek net 'n opstel kan skryf as ek weet dat dit op 'n sekere tydstip ingehandig moet word.

146. Ek vind dit maklik om by 'n sekere werkmetode te bly nadat ek eenmaal daarmee begin het.

147. Ek het 'n redelik definitiewe plan wat ek volgende somer sal doen.

148. Ek voel dat ek te veel tyd aan sommige dinge spandeer en nie genoeg aan ander nie.

149. Ek glo daaraan om 'n deel van my toelae te spaar "vir ingeval....".

150. Ek voel dat ek meer onder tydsdruk staan as ander mense.

151. Ek onthou gebeurtenisse uit my verlede swak.

152. Ek onthou datums waarop dinge gebeur het moeilik.

153. Ek het genoeg tyd om die dinge uit te voer wat ek die graagste wil doen.

154. Ek onthou party gebeurtenisse uit my kinderdae asof dit net gister gebeur het.

155. Ek voel somtyds dat dit beter met ons sou gegaan het as horlosies nooit uitgevind was nie.

156. Dit sou my baie irriteer om 'n horlosie te hê wat 'n paar minute per dag of so uit is.

157. Ek voel ongemaklik as ek nie seker is hoe laat dit is nie.

158. Ek het gewoonlik 'n taamlik goeie idee hoe laat dit is.

159. My kinderdae lyk vir my baie onwerklik.

160. Ek raak ongeduldig indien ek vyf minute vir iemand moet wag.

161. Ek voel dat ek daartoe neig om tyd te verspil en dit onnodig te verkwis.

162. Ek voel skuldig as ek laat slaap in die oggend.

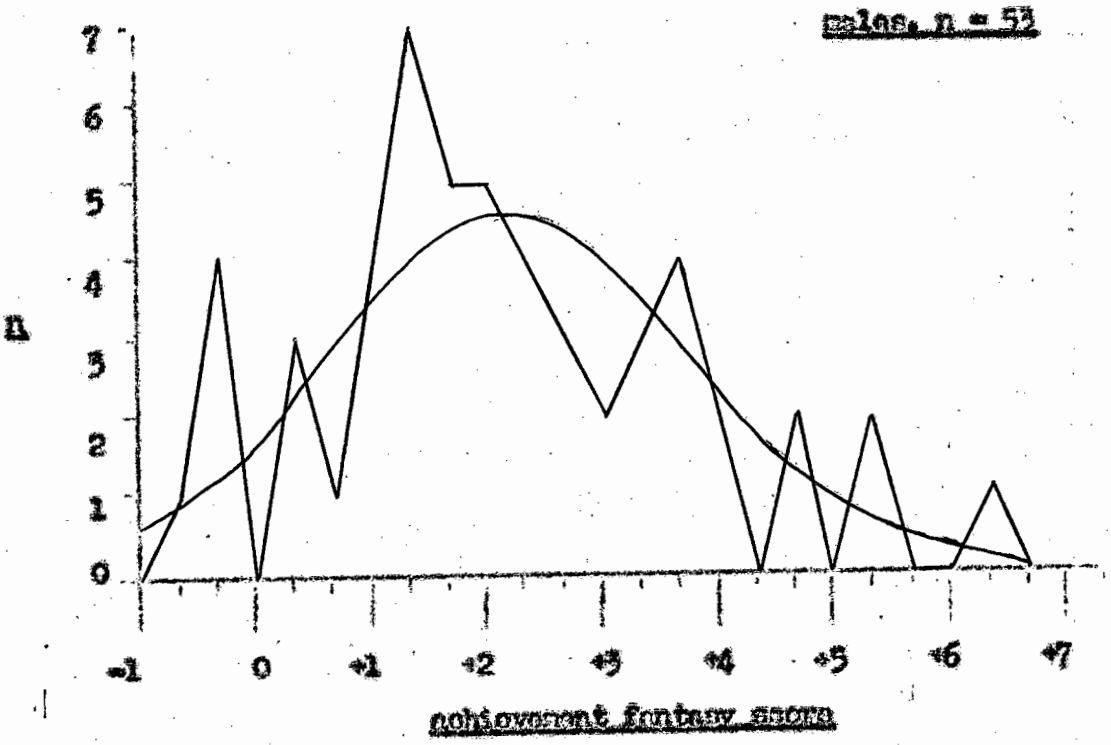
APPENDIX VI

Frequency polygons of achievement fantasy scores and their best-fitting normal curves for various groups

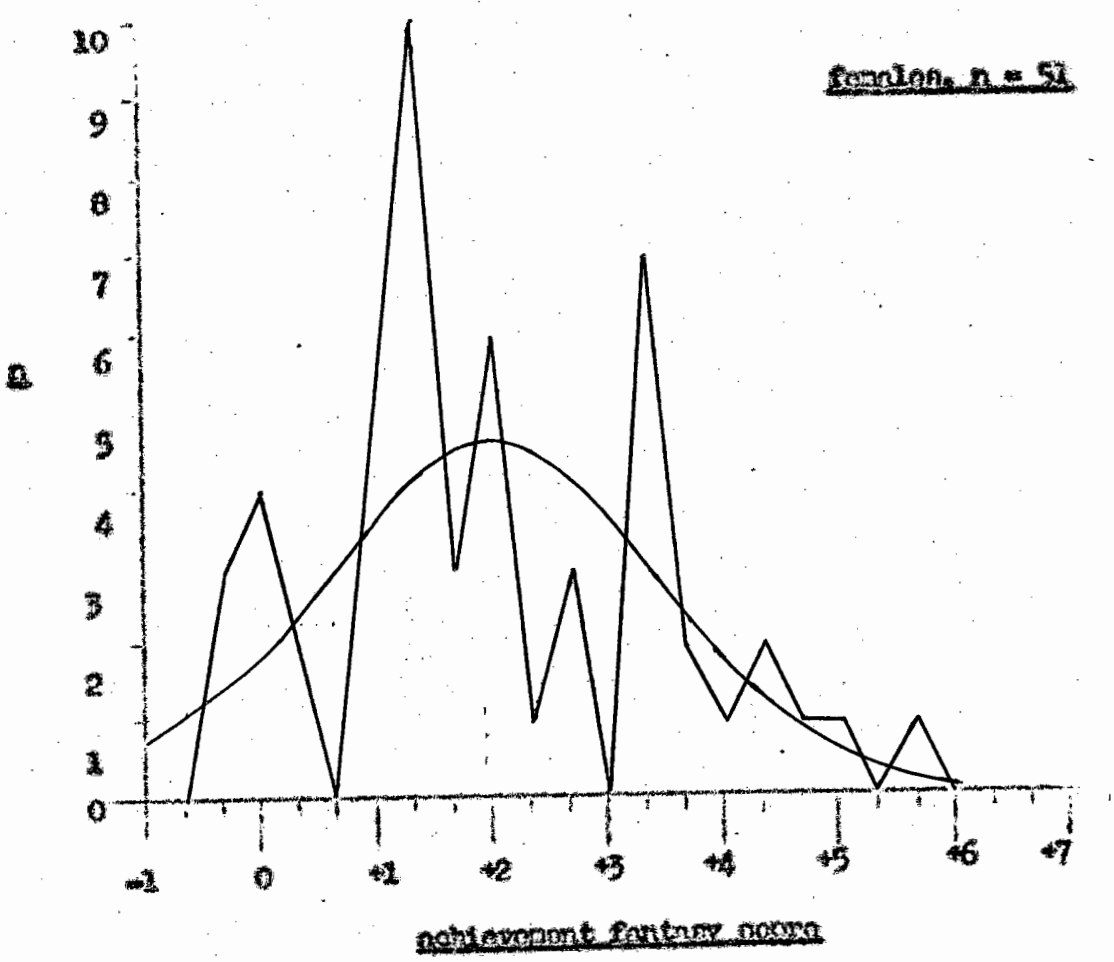
Graph 6.a

Gentile English-speaking students

Frequency polygons of achievement fantasy scores (average score of all three cards) and their best-fitting normal curves (in red)



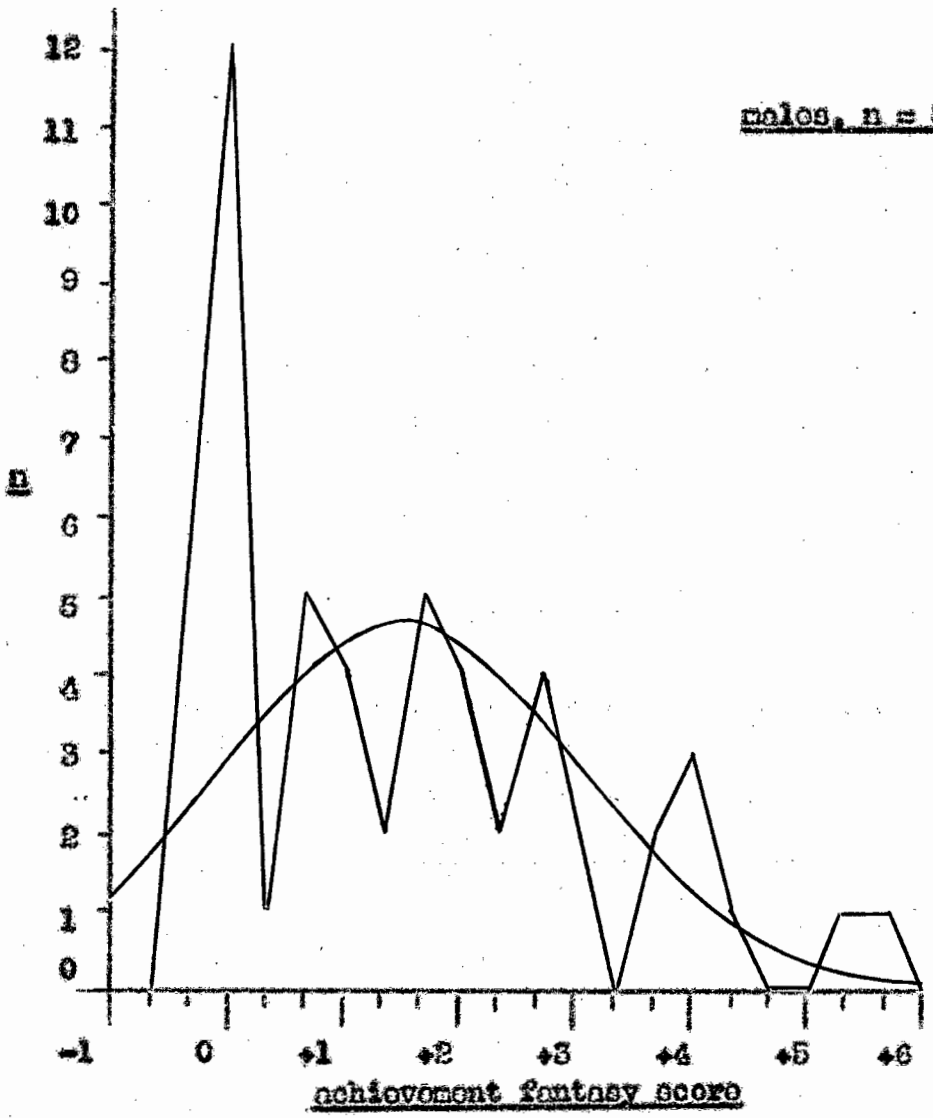
Graph 6.b



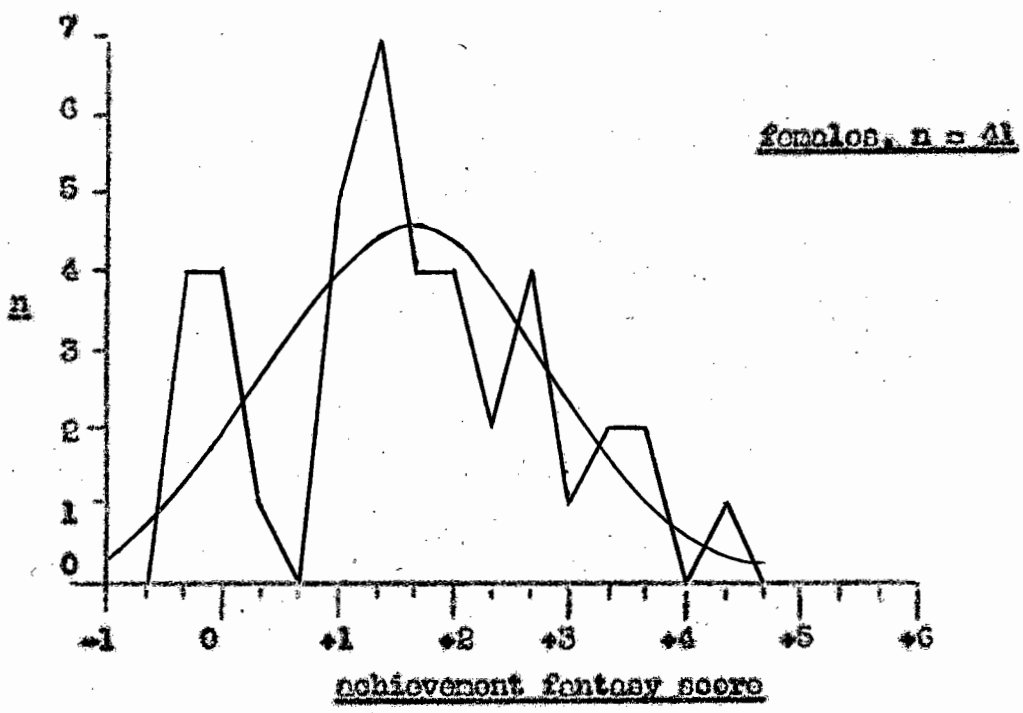
Graph 6.c

Gentile English-speaking pupils

Frequency polygons of achievement fantasy scores (average score of all three cards) and their best-fitting normal curves (in red)



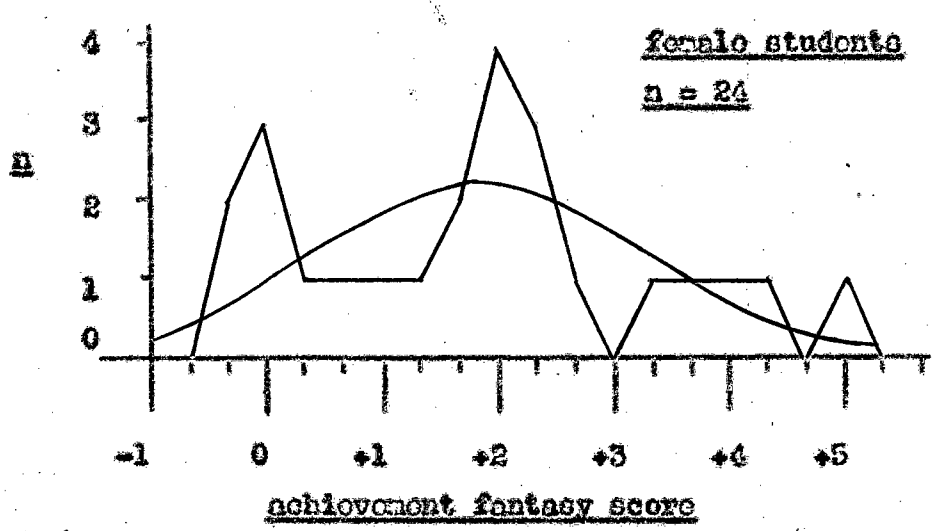
Graph 6.d



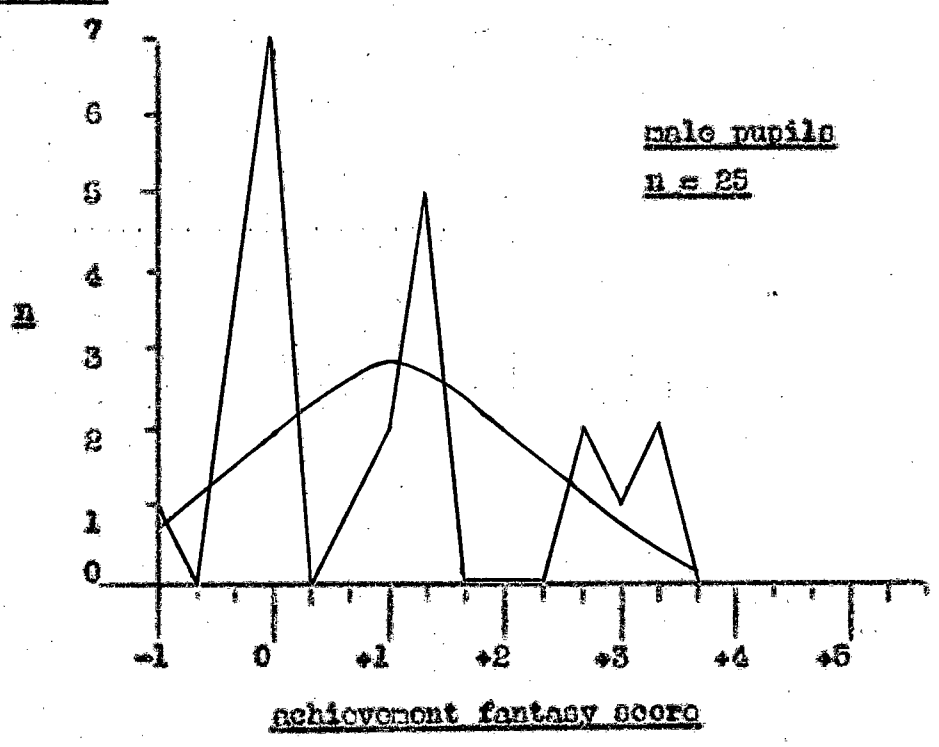
Graph 6.e

Jewish students and pupils

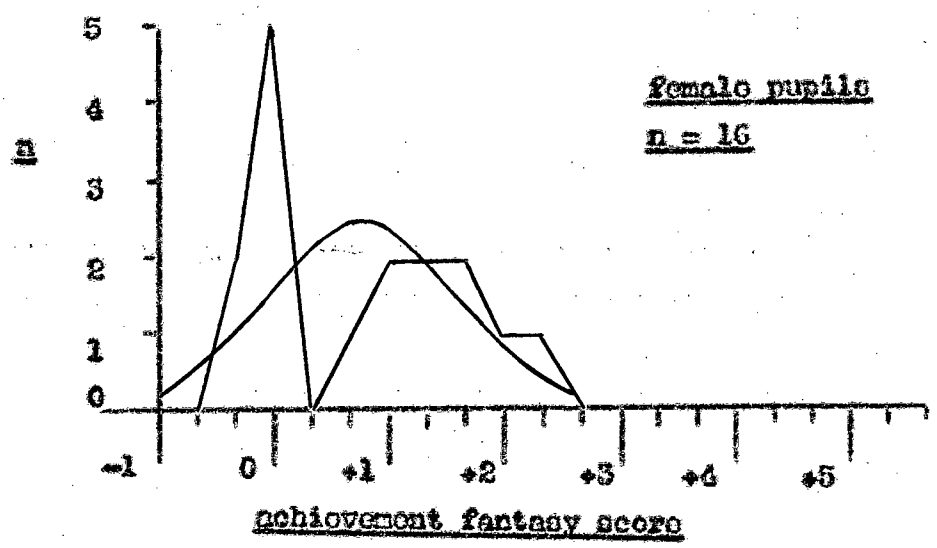
Frequency polygons of achievement fantasy scores (average score of all three cards) and their best-fitting normal curves (in red)



Graph 6.f



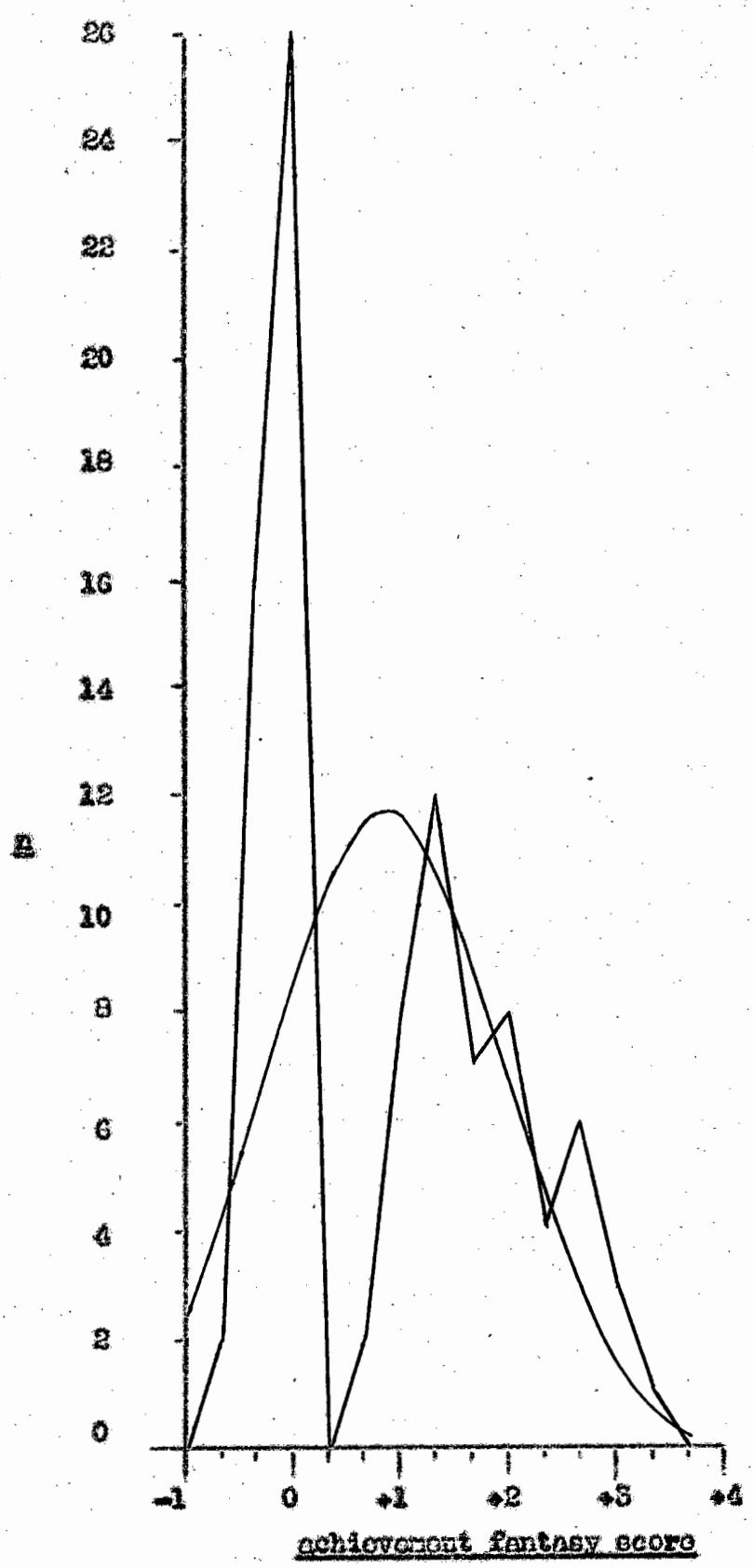
Graph 6.g



Graph 6.h

Afrikaans-speaking male students, n = 95

Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)



Graph 6.i

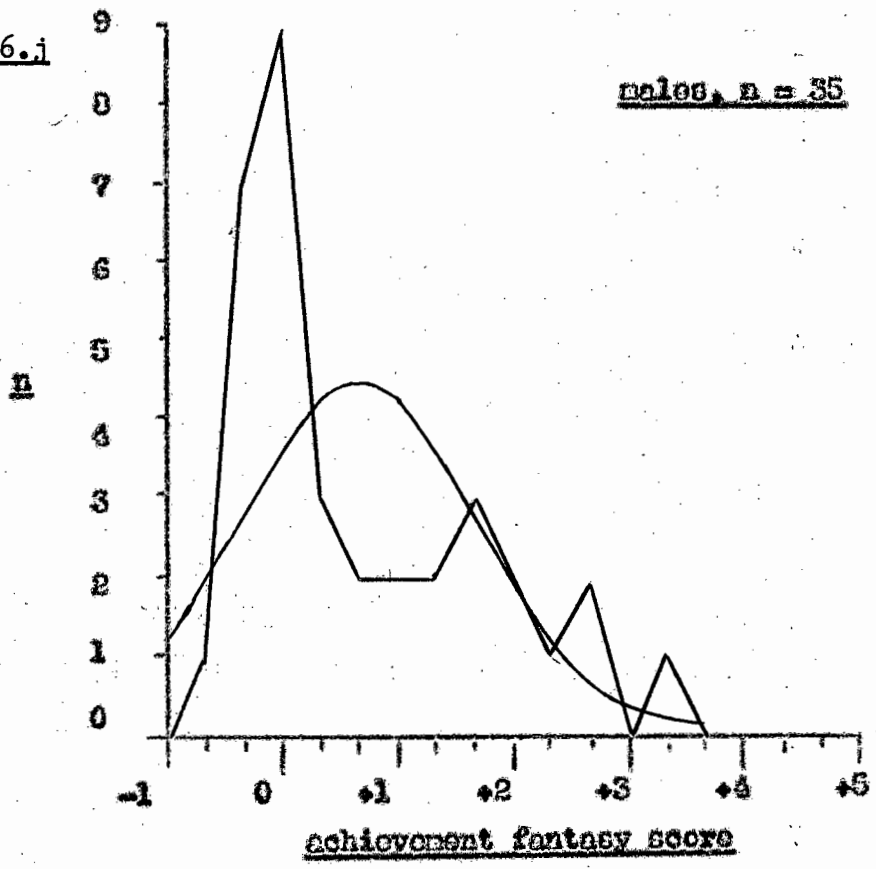
Afrikaans-speaking female students, n = 74

Frequency polygon of achievement fantasy scores (average score of all three cards) and its best-fitting normal curve (in red)

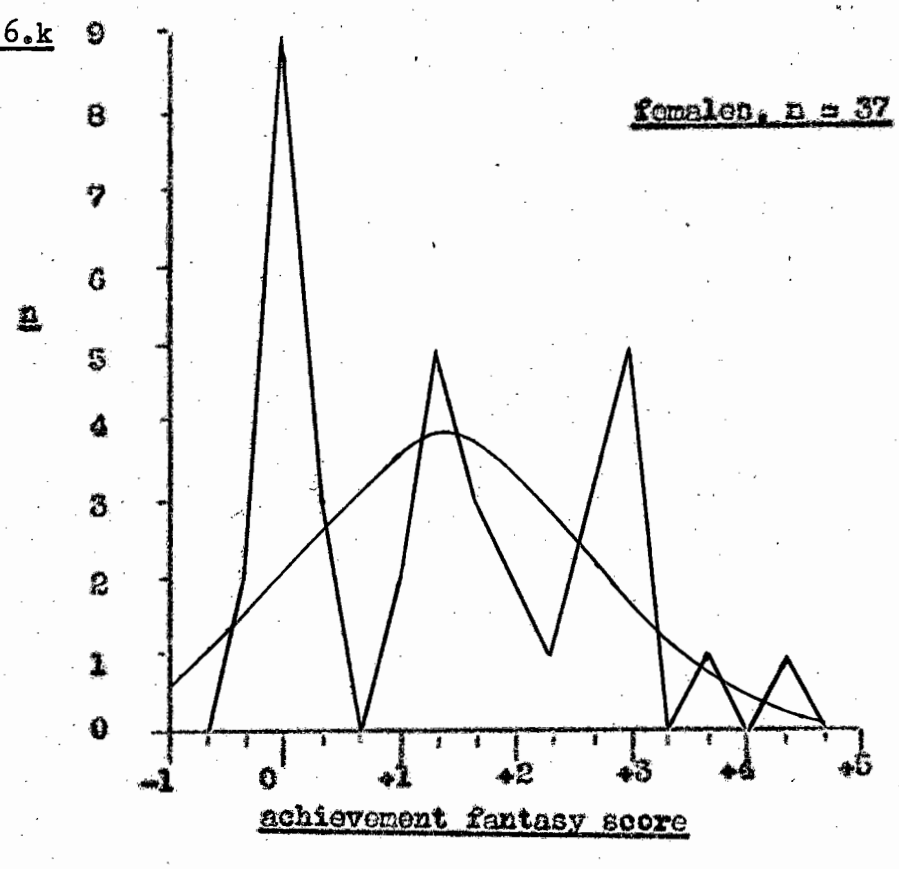
Afrikaans-speaking pupils

Frequency polygons of achievement fantasy scores (average score of all three cards) and their best-fitting normal curves (in red)

Graph 6.j



Graph 6.k



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