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SCHOOL PERFORMANCE
AND
REFERENCE GROUP ORIENTATION
TO ACHIEVEMENT

- A Pilot Study -

A Thesis presented in partial fulfilment
of the requirements for the degree of
Master of Arts in Education at
Massey University

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1976

ABSTRACT

The main purpose of the study was to test the thesis that a relationship exists between a pupil's performance at school and the orientation towards achievement obtaining from his 'reference group'. This concept was understood principally in terms of social psychology, although conceptual strands from sociology were woven into the theoretical considerations.

The study examined the interrelationships of the main variables with socioeconomic status, ethnic origin, class stream, pupil teacher affect and ses of proposed occupation. An (untestable) causal logic was implicit in the design, namely that a reference group orientation to achievement served as a mediator between the independent variables of (1) SES, Ethnic Origin, IQ, Class Stream and previous grades and (2) the dependent variables of Teacher-pupil affect, Pupil-teacher affect, SES of proposed occupation and present grades.

The report contains a justification of the thesis, an account of the pilot study conducted with eighty four fourth form pupils from three streamed classes of a co-educational secondary school, the findings and a discussion of the implications of the study.

The empirical phase called for the gathering of data by interview, questionnaire and a search of school records. As well it entailed the development of an index to measure reference group orientation to achievement. The subsequent statistical analysis relied principally on cross tabulation and step-wise multiple regression analysis.

The results revealed that reference group orientation to achievement did not appear to mediate between independent and dependent variables but rather that it acted independently

intervening to yield a higher correlation with present grades and SES of proposed occupation than any of the variables tested. Further, Reference Group Orientation to achievement emerged as a partial function of SES and ethnic origin, also correlating positively with a simple measure of pupil definition of the school situation and with pupil sociometric rejection.

ACKNOWLEDGEMENTS

I should like to express my deep gratitude to those who have assisted and guided this study. In particular I would thank the following:

Professor C.G.N. Hill for his encouragement.

The headmaster, teachers and pupils whose co-operation and time made the study possible.

Professor R.S. Adams for his patience and guidance.

Mr G.C. Arnold and Mr R.K. Harker for their valued advice.

My sisters, Susan and Judith for their assistance with coding.

Miss Helen McDonald and Mrs Margaret na Nagara who under severe constraints of pressure and time typed the final script

D.J. Moxon

Palmerston North
9 September 1976

TABLE OF CONTENTS

	<u>Page</u>
Abstract	i
Acknowledgements	iii
List of Tables	vi
List of Figures	viii
Introduction	ix
CHAPTER I RELATED RESEARCH TRENDS	1
Introduction	1
Conceptual Issues and Trends	1
Patterns in Home Environment	4
Patterns in Motivation and Achievement Orientation	9
Patterns in Cognitive Ability and Language Development	14
Patterns in the School	18
Conclusion	26
CHAPTER II THE THEORETICAL BASE	29
Introduction	29
A Conceptualisation from Symbolic Interactionist Theory	30
A Conceptualisation from Reference Group Theory	36
A Case Study	43
A Synthesis in Education	49
Application in an Educational Setting	55
The Theoretical Model	56
CHAPTER III HYPOTHESIS STRUCTURE, DATA COLLECTION AND TREATMENT	
Introduction	59
Hypothesis Structure	59
Research and Operationalisation Design	68
i Data Collection Methods	68
ii The Population	69
iii The Research Instruments	69
iv Treatment and Analysis of Data	70

		<u>Page</u>
CHAPTER IV	RESULTS	76
	Introduction	76
	Variable Frequency Distribution	77
	Hypothesis Results	82
	Section A: Reference Group Orientation and the Independent Variables	82
	Section B: Reference Group Orientation and the Dependent Variables	89
	Section C: Reference Group Orientation to Achievement and its cumulative Interrelationship with the Independent Variables as they impinge upon the Dependent Variables	93
	Summary	106
CHAPTER V	CONCLUSIONS AND DISCUSSION	
	Introduction	108
	The Model	108
	Theoretical Conclusions and Discussion	110
	Implications for Future Research	119
	Educational Implications	121
APPENDIX A	Related Research: Aspects of the Definition of the Situation as in Manis and Meltzer (1968)	122
APPENDIX B	The Research Instruments	124
APPENDIX C	Direct Independent Variable- Dependent Variable Cross- Tabulations	127
APPENDIX D	The Sociometry of Reference Group Orientation to Achievement	133
APPENDIX E	The Raw Data	
BIBLIOGRAPHY		141

LIST OF TABLES

<u>Table</u>	<u>Page</u>
3.1 A Reference Group Hierarchy	73
3.2 Teacher Affect and Pupil Affect Indices	74
4.1 Frequencies for SES of Pupil Home	77
4.2 Frequencies for Ethnic Origin	77
4.3 Frequencies for IQ Scores	78
4.4 Frequencies for Third Form Grades by Subject	78
4.5 Frequencies for Teacher-Pupil Affect by Subject	79
4.6 Frequencies for Pupil-Teacher Affect by Subject	80
4.7 Frequencies for Fourth Form Grades by Subject	80
4.8 SES of Proposed Occupation	81
4.9 Frequencies for Reference Group Orientation to Achievement Index	81
4.10 Reference Group Orientation to Achievement with Ethnic Origin	82
4.11 Reference Group Orientation to Achievement with SES of Pupil Home	83
4.12 Reference Group Orientation to Achievement with IQ Scores	84
4.13 Stream A: Reference Group Orientation to Achievement and SES of Pupil Home	85
4.14 Stream A: Reference Group Orientation to Achievement with Ethnic Origin	86
4.15 Stream B: Reference Group Orientation to Achievement with SES of Pupil Home	86
4.16 Stream B: Reference Group Orientation to Achievement with Ethnic Origin	87
4.17 Stream C: Reference Group Orientation to Achievement with SES of Pupil Home	88
4.18 Stream C: Reference Group Orientation to Achievement with Ethnic Origin	88
4.19 Third Form Grades with Reference Group Orientation to Achievement	89

4.20	Reference Group Orientation to Achievement with Teacher-pupil Affect	90
4.21	Reference Group Orientation to Achievement with Pupil-teacher Affect	91
4.22	Reference Group Orientation to Achievement with SES of Proposed Occupation	91
4.23	Reference Group Orientation to Achievement with Fourth Form Grades	92
4.24	Multiple Regression Statistics and Derived Venn Dimensions	93
4.25	Stream A: Teacher-pupil Affect as a Function of the Independent Variables Combined	95
4.26	Stream B: Pupil-teacher Affect as a Function of the Independent Variables Combined	100
4.27	Stream A: SES of Proposed Occupation as a Function of the Independent Variables	101
4.28	Stream B: SES of Proposed Occupation as a Function of the Independent Variables	102
A.1	Socio-economic Status with Teacher-pupil Affect	127
A.2	Socio-economic Status with Pupil-teacher Affect	127
A.3	IQ with Teacher-pupil Affect	128
A.4	Third Form Grades with Teacher-Pupil Affect	129
A.5	Third Form Grades with SES of Proposed Occupation	129
A.6	Third Form Grades with Fourth Form Grades	130
A.7	IQ with Third Form Grades	130
A.8	SES of Proposed Occupation with Fourth Form Grades	131
A.9	Teacher-pupil affect with SES of Proposed Occupation	131
A.10	Teacher-pupil Affect with Fourth Form Grades	132

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1.1	Cohen, 1970, p.125	10
2.1	Characteristics, Functions and Sanctions of Reference Groups	46
2.2	The Theoretical Model: School Achievement: Societal, Institutional and Interpersonal Influences	57
3.1	Sociological Influences on Reference Group Orientation to Achievement	60
3.2	Educational Influences on Reference Group Orientation to Achievement	61
3.3	Reference Group Orientation to Achievement and School Behaviour	63
3.4	Sociological, Educational and Reference Group Influences on Teacher-Pupil Affect	65
3.5	Sociological, Education and Reference Group Influences on Pupil-Teacher Affect	66
3.6	Sociological, Educational and Reference Group Influences on SES of Proposed Occupation	66
3.7	Sociological, Educational and Reference Group Influences on Fourth Form Grades	67
3.8	Data Origin	
4.1	Teacher-pupil Affect as a Function of the Significant Independent Variables Combined	94
4.2	Stream B: Teacher-pupil Affect as a Function of the Independent Variables Combined	96
4.3	Pupil-teacher Affect as a Function of the Significant Independent Variables Combined	98
4.4	Stream A: Pupil-teacher Affect as a Function of the Independent Variables Combined	99
4.5	SES of Proposed Occupation as a Function of Significant Independent Variables Combined	101
4.6	Fourth Form Grades as a Function of the Independent Variables Combined	103
4.7	Stream A: Fourth Form Grades as a Function of the Significant Independent Variables	104
4.8	Stream B: Fourth Form Grades as a Function of the Significant Independent Variables	104
5.1	The Revised Model	109

INTRODUCTION

This thesis concerns itself with two educational problems, one deriving from theory and the other from practice. At the theoretical level the thesis seeks to: (i) synthesize selected Symbolic Interactionist conceptualisations with conceptualisations from Reference Group Theory; (ii) to operationalise these concepts; and (iii) test them for applicability and predictability in an educational setting. At the practical level, the thesis seeks to study the relative power and interrelationship of selected predictors of achievement at the fourth form secondary school level. Both problems relate to each other in that operationalised concepts from the theories are used as indices for predicting achievement. The research can be justified on two counts - its potential for the development of educational theory and its relevance for educational practice.

The study is set within the Sociology of Education and the Social Psychology of Education. It is Sociological in that it traces and tests for patterns of relationship among a selection of societal variables as they impinge upon achievement in the secondary school. It is Social Psychological in that certain patterns of interpersonal referents and definitions are described and analysed as they mediate or intervene to affect school behaviours and achievement.

x.

In terms of practical relevance, if the operationalisation of the theory can yield evidence that achievement is influenced by circumstances not usually encompassed by conceptual explanations (eg: SES, IQ, etc), then the possibility of more effective educational intervention may emerge.

For the operationalisation, eighty-four fourth formers in a large co-educational city secondary school, were used. The sample represented one full class from each of the three streams in the school together with core subject teachers. With data obtained from this sample, the study intends to isolate social psychological referents and 'definitions of reality' pertinent to the actors involved and to study their relationship with (i) socio-economic status, (ii) ethnic origin, (iii) IQ scores, (iv) class stream, (v) previous grades, and (vi) behavioural categories of Teacher-pupil affect, Pupil-teacher affect, SES of intended occupation and present grades.

The testing of variable interrelationship and predictive power is complemented by a descriptive analysis of the definition of the situation obtained from pupils in the research sample.

To this end the first chapter of the thesis deals with research that has relevance for the argument (thesis) that is mounted. Chapter II discusses the theoretical bases of the thesis, indicating the foundation on which it rests. Chapter II also develops a model describing the relationships between the variables involved. In Chapter III the hypothesis deriving from the model appear together with their operationalisation in research design and methodology. The results are presented in Chapter IV and their implications in theory and practice presented in Chapter V.

Given the small sample size and the social psychological detail derived from pupil interviews, the thesis is necessarily a pilot study. Further, it seeks to test a method as well as a set of hypotheses, and therefore can be seen as a methodological Case Study also. The conclusions then relate only to the sample and are not generalisable. However, it is hoped that by providing data from a particular case, the study may contribute to a more refined understanding of school achievement and its relationship to interpersonal and societal variables.

CHAPTER I

Related Research Trends

Introduction

This chapter sets out to present some research findings related to the relative power of selected correlates and possible predictors of educational achievement that are germane to the thrust of the thesis. The chapter begins with a discussion of conceptual issues and trends that undergird much of the research presented. The review is divided into particular domains of interest that fall under the broad categories of socioeconomic status, ethnic origin and school achievement as they relate to home environment, motivation, cognitive ability, New Zealand education and school environment. For reasons that are obvious the review borrows heavily on overseas research, mainly in the United States and the United Kingdom. However, no deliberate attempt has been made to use country of origin as a basis for differentiation, principally because the variables under consideration* are gross and are in general taken to be cross culturally consistent (at least in Western cultures).

Conceptual Issues and Trends

It is now commonplace to associate the pre-school experiences of children as strong determinants of success at school, a consequence of the continuing debate over the relative importance of environment and heredity in determining school performance. The difficulty of providing direct rather than

* Sex, as a sociological and social psychological variable was not considered axiomatic to the argument of the thesis and is not presented. This was due to the assumedly secondary nature of its impingement as a variable in Reference Group Orientation to achievement; being related more immediately to pupil self-concept rather than directly to the particular referents isolated in this study. Its inclusion as a reference influence might usefully be employed in subsequent work.

inferential evidence has meant that the genetic argument has subsided to some extent. Consequently, there has been an increased tendency to emphasize the environmental determinants. For example, it is commonly accepted that subsequent educational performance is to a considerable degree a function of preschool experience (Bloom 1964). In a similar vein Brophy and Good (1974) argue that educational achievement is also socially determined in that clothing and appearance and other factors related to socioeconomic status and family background, significantly influence teacher-pupil behaviour and subsequent pupil performance. In the present climate of opinion, mental abilities are now recognized as variable endowments. The interaction of the environment with these is seen as a significant influence impinging upon and shaping the process of cognitive maturation.

The twin variables, socioeconomic status and social 'class', have often been put forward as useful and telling indices of many environmental conditions which have differential effects on school achievement. However, it seems reasonable to suggest that socioeconomic status is in effect a summary of many variables whose components may, in fact, vary from place to place and time to time (Swift, 1968). Neither SES or class has much authority as a causal explanation, their usefulness is rather in providing gross labels which encompass a number of potential explanations.

A further issue for research of the above nature is that described by Sanborn and Wasson (1966) relating to factor identification and causality. They argue that:

"when two variables or conditions are known to be related there is a tendency to regard their interdependence as transitive in nature and to identify one agent as the cause and the other as the effect ... we have no ready way to talk

about conditions of interdependence in which each agent is to some extent a cause and to some extent an effect".

The writers suggest that some kind of notion of interdependence as a theoretical and operational mode may more closely approximate the nature of social and psychological phenomena.

Socioeconomic status, ethnic origin and school achievement as broad categories for analysis especially reflect the problem posed by the need for interdependence. Many lists of SES predictors of school behaviours have been combined: Charters (1963) has listed the following as reliable predictors: grades, achievement and intelligence test scores, retention at grade level, course failures, truency, suspensions from school, high-school dropouts, plans for college attendance and amount of formal schooling. Charters, however, warned of viewing one variable alone as a sufficient and necessary condition for a given social result. Recognising this, Boocock (1966) listed a number of variables that might be regarded as intervening between SES and educational performance. They were: values, child rearing practices, family size and relations with teachers. Variations on such variable selection and role abound. The present review seeks both so-called 'independent', 'dependent' and intervening variables, recognising their possible interdependence and partial variation with each other. The review then seeks patterns and relations that suggest some kind of rapproachment in interdependence.

Patterns in Home Environment

It has been said (Banks, 1968) that one of the main features of modern industrial society is the extent to which the educational system is a means by which individuals are not merely trained for, but often allocated to, their occupational roles. This is seen as a direct consequence of the demands made by an advanced industrial economy for highly trained manpower. Demands emerge for new and continually evolving expertise based in large part on a formal educational training. Status, then, is increasingly achieved, rather than ascribed, and achieved moreover by means of the educational process. The school, to be more specific, has become the major socialising agency, at least during the legal requirement of attendance (Musgrave, 1965). The home, as a socialising agency, has thus lost or is losing its power during this period. Such a conceptualisation from Macrosociology might be qualified however with the more social psychological insight that this period of the Education system's dominance, is only a structured possibility in practice - powerful and pervasive though it may be. It is conceivable that for some 'deviants', the school impact is not a major socialisation factor in their lives and may in fact have a negative effect, with opposing norms being reinforced (Backman and Secord (1968). The prior and continuing power of the home as a socialising agency may then intervene and influence whatever effect the school may have (in Musgrave, 1965).

Even before subjective or directly behavioural variables are taken into account, geographical and material circumstances

may be seen to impinge upon educational performance.

"In south-west Hertfordshire where everyone enjoys a basic adequate income and good housing, the material environment of the home was of less importance in differentiating between the successful and unsuccessful child than differences in the size of the family and in the education, attitudes and ambitions of the parents. In Middlesbrough, on the other hand, where incomes were lower and housing conditions less favourable, the successful children at each level were distinguished by the relative prosperity of their homes".

(Underlining mine)

(Floud, Halsey and Martin 1956
in Banks 1968)

The issue may be qualified, however, by noting specific indices that derive, not directly from poverty and housing but from school absence through illness, neglected homework and the inability to pay fees or take up a scholarship (Banks, 1968). Though financial and physical disadvantage may act against the fulfillment of intellectual potential in school, it seems reasonable to suggest that school achievement should be seen in the light of the family as a whole, including the particular values and attitudes that pertain. The Plowden report further emphasised this by calling for a wider definition of home circumstances:

"More of the variation in the childrens school achievement is specifically accounted for by the variation in parental attitudes than by either the variation in the material circumstances of parents or by the variation in the schools. Secondly, the relative importance of parental attitudes increases as children grow older".

(Underlining mine)

(Plowden Report 1967)

The argument for the social psychological mode of the home as a powerful determinant of school performance is

found in work by Deutsch (1963) and Maas (1951). Distinctive features include the notion of a 'hidden curriculum' in middle class homes, comprising intellectual readiness, language cues, concept formation and a milieu of interpersonal relations that mesh with the classroom setting. Lower class homes contain social psychological modes that may often represent a discontinuity with the school environment, in that no such hidden curriculum is present. Such homes have been described as noisier, more crowded, more disorganized and more assertive than middle class homes, lacking many of the accoutrements often associated with school readiness such as books, art work, a variety of toys and self instructional equipment. Adult models are seen as incongruous with the demands of the school or the broader community and the parents are seen as unsupportive of their children's educational pursuits. Physical and concrete experiences were seen as the overriding norm in communications and discipline; lower class homes being much less verbally oriented than higher class homes. 'Closed' and 'rigid' relations between lower class parents and their children was reported and this was concurrent with a high dependence of children on siblings and peers, a condition not so prevalent in middle class families. Given the middle class operants in many schools, the modes of communication, discipline and relationship pertinent to the reported 'lower class child' might tend to be inappropriate. These findings mesh with others from Hess (1966)* which concerned the role of the parents and significant others in the home environment:

* The work of Hess and Shipman develops much of Bernstein's (1961) research.

"The early years are important in part because they occur before formal schooling begins and necessarily impede or facilitate the transition to academic success. In our view many of the differences in mental ability and cognitive styles that appear among different cultural and socioeconomic groups can best be understood in terms of the transmission of information processing strategies from parents to children ... The child's early orientation to authority and cognitive activity facilitates or retards his ability to adopt the role of the pupil when he encounters formal learning situations in the schools".

The impact, then, of preschool experiences and interaction with significant others in the environment appears to shape to a certain extent the modes of adaptation, definitions of the situation and general perspective of the child that may neutralise, to some extent, the impact on the school.

Such findings may be seen to relate to more specific behavioural findings reported by Leshan (1952), Kohn (1959), and Kohn and Carroll (1960). Working class families were described as training their children with immediate punishment and reward, whereas high class families stressed the future consequences and the delay of gratification. Middle class parents appeared to treat a child's misbehaviour in terms of their appreciation of the child's intent. Again, such child rearing modes may be seen as more functional in adaptation in the school setting.

The dysfunctional nature of such patterns for lower socioeconomic status childrens' school performance may be contrasted with Reissman's (1963) findings, which indicate some positive factors in disadvantaged* environments. He lists co-operativeness, mutual aid of extended families, lack of strain from competition, individualism, egalitarianism,

* The term 'disadvantaged' here is associated with SES in that disadvantage characteristics tend to be predominantly lower class operants.

lessened sibling rivalry and the security of a large family. It may be noted, however, that apart from their inherent merit, such patterns may still be dysfunctional for adaptation to the school. Lack of competition, less sibling rivalry and less of the so called 'achievement syndrome' (Winterbottom, 1958) may detract from successful adaptation and performance. Despite such a qualification, however, parents with low levels of occupational and educational skills can still provide a very stimulating home environment for their children (Dave, 1963). It appears, therefore, that parental behaviour rather than parental status per se may be the central social psychological issue with regard to their relative impact on subsequent academic performance.

The tension between variables which describe parental behaviours and parental status has been briefly described. However, the problem remains as to how the two interact with each other. Many lower SES homes may well reflect 'dysfunctional' parental behaviours with regard to their childrens' adaptation to school. Yet prediction on the basis of SES categories may be too crude an approach since individual differences and differing subcultural mores within the lower SES bracket may not exhibit the same parental behaviours. Research into the somewhat more complicated task of relating parental behaviour to measures of achievement value is less prolific. Two examples of such research, however, were conducted by Stodtbeck (1967) and Katovsky, Grandall and Good (1967). The former study found a relationship between the balance of family power in terms of participation and interaction and the need

for achievement and achievement values. Where the mother's power was high, so were her achievement value scores and those of her son.

"The study inferred that this had implications for school achievement, even though the findings were tentative. The latter study found a relationship between childrens' belief in their own control and responsibility for events, and parental behaviour. Using both interviews and questionnaires they found that where parents were rated as protective, nurturant, approving and non-rejecting, children were more likely to believe that they, rather than something or someone else, were responsible for their intellectual achievement".

Complementing this, Elder (1963) found that:

"The strongest commitment to high-school graduation and to obtaining a college education occurred under reported conditions of frequent explanations and moderate or low parental power".

Such patterns come closer to the mechanisms of social psychological transmission of human behaviour and modes of perception and intellectual functioning. The more gross sociological categories of SES have been modified and analysed for more refined discriminators.

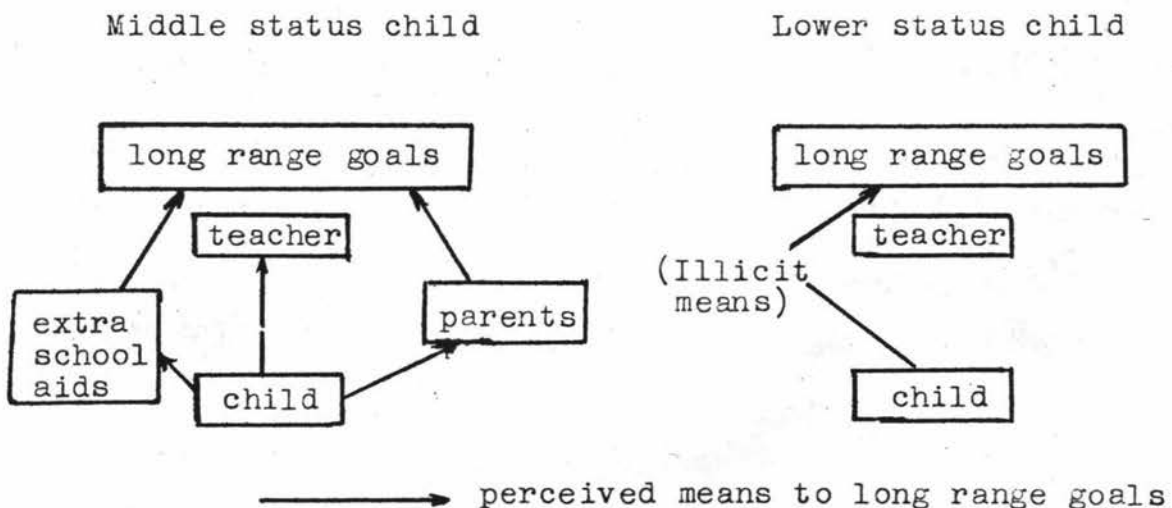
Patterns in Motivation and Achievement Orientation

Low achievement has often been associated with low aspiration and been thought to derive from socially dysfunctional situations, disproportionately found in low SES groups (Gottlieb, 1963). More recently, however, it has been reported that lower SES groups, especially within negro samples have equal aspirations with regard to

school and occupational achievement, but differ in their expectations of realising these aspirations (Rosen (1961)). The minority group pattern in America especially is thought to be tending towards differences in performance not based on aspiration, but rather perhaps on a feeling of powerlessness and lower self-esteem (Ausubel and Ausubel, 1963; Battle and Roger, 1963).

The field is not definitive on these issues, but the suggestion here is that achievement orientation and subsequent motivation to achieve does seem to turn partly on an individual's definition of the situation as hopeless or hopeful. Such definitions are partly thought to be mediated by him by influences and surrounding definitions from neighbourhood, home and peers. Cohen (1970) has crystallised this in diagrammatic form (Fig 1.1). The diagram indicates the ramifications of this attitude in terms of pupil definition of the situation and subsequent behaviour in the classroom. The middle class child sees the teacher as a means to a real and possible end. The low status child cannot believe that working with the teacher will accomplish long range goals.

FIGURE 1.1



As with the patterns revealed in home environment the SES correlation with achievement variables is a feature of much of the research, and social psychological patterns which may effect achievement indices more closely are not so predominant. However some work has been done in the area of self concept and self esteem as it relates to achievement motivation and orientation (Davidson and Lang 1960, Staines 1958, Borislow 1962,

and Fink 1962). All note the conceptual problem that arises here in that, to what extent may self concept be seen as part of the cause and to what extent as part of the effect with regard to achievement orientation. Backman and Secord (1968) have reported that self esteem does not derive from measures of intelligence and is not intimately bound up with such measures despite the cause and effect tension. However the research still consistently reports a correlation between good academic performance and self esteem.

An interesting development from self esteem conceptualisations has emerged in the concept of 'Reflected Self' - an individuals estimation of how persons important to him, would describe him. This 'Reflected Self' emerges from interaction with others as the actor becomes more sensitive to the way others see him. He eventually comes to see himself as he perceives others see him (Davidson and Lang 1960). Brophy and Good (1974) give a more detailed educational context to this finding in their work on expectation effect in teacher pupil interaction and behaviour. The inference here is that self esteem and reflected self derive from the positive or negative expectation of significant others (in this case teachers)

and is to some extent a cause of differential academic achievement. That such expectations may mesh with or clash with parental expectations and beliefs has been investigated by Ashcroft (1972) where a relationship was found between consonant teacher parent beliefs and functional teacher pupil interaction. Whatever the role of self concept, reflected self and their contingencies in the casual pattern leading to differential achievement; once consistent success occurs in school, it tends to breed success. The implication by Backman and Secord (1968) here is that achievement creates the climate for the pupil to view himself as an achiever, and achievement orientation and motivation become operant.

"All the research.....reviewed.....leads to the conclusion that the most important fact in Educational achievement is that the child must repeatedly experience success in his endeavours. This builds appropriate abilities, study habits, attitudes and values and minimises those factors that interfere with performance."

Whether such an orientation is usually prior to school success deriving from preschool experience, whether it is a function of school experience, or a combination of both has not yet been reported accurately.

The traditional trend in research seems to have been to associate lower SES groups with a comparative lack of aspiration, and this tendency allies itself with the fact that such groups often contain a large percentage of ethnic minority groups. However it is contended here that the operants behind low aspiration and achievement orientation do not constitute the universe of lower SES populations. It seems rather that particular social influences, referents and definitions pertain to particular

situations and particular people. Although the sociological trend of class and its concomitant ethnic differences undeniably exists (Hieronymous 1951), subsequent research has concentrated on the social psychology of behaviour transmission with smaller, more intensive studies. Differences between SES and racial groups of children in terms of their expectancies for internal and external control of reinforcement were found to be significant (Battle and Rotter 1963). Lower class negroes were found to be more external than middle class negroes or whites; middle class children were more internal than lower class children. Such a finding has real implications for school performance and behaviour where individual study and competition form a large part of the ethos. Measures of delinquent behaviour, truency and other school offenses were found to be related to downward mobility rather than SES category per se in a study by Pine (1965).

Contradicting some of the past research, Gist and Bennet (1963) found a relatively high level of occupational and educational aspiration among negro high school students in a Mid Western State, even though the negro parents were occupationally disadvantaged with respect to parents of a comparison group of caucasian students. In general the negro students appeared to have higher mobility goals than the whites. The authors suggested that the negro mothers involved may exert more intense influence than do the fathers on the vocational goals of their children. They further suggested that this might effect distinctive

areas of vocational interest for young negroes. Chansky (1965) reportedly confirmed this where he found that ninth grade negroes' vocational interest differed systematically from those of a group of white students who were matched with them on the basis of aptitude scores. The white students showed more interest in careers concerned with nature and machines, but negroes seemed to be interested in interpersonal, verbal, computational and long term training programmes. Chansky posited the existence of 'differential realities' perceived by negroes, deriving from their early socialisation in the form of cognitive and affective 'loadings' by parents and peers.

The inference from more recent research is that sociology eventually becomes manifested through the social psychology of particular situations; the socialisation referents and individual definitions that may well mediate SES and ethnic differences, resulting in differential school achievement but which may also intervene such summary categories and provide their own casual impetus.

Patterns in Cognitive Ability

It has often been demonstrated that measures of cultural deprivation and lower SES are associated with low intelligence test scores and school performance. The high correlation of IQ scores and achievement alone has often been demonstrated and it has been argued that they map similar if not sometimes identical domains. Presently however, concern seems to be directed more to the dynamics of the related process of underachievement, rather than the continuance of research to establish the point.

A complication of the issue is that no ability test

yet exists that could be validly and reliably used to differentiate ability in a latent sense from ability manifest in a culturally specific test. There seems to be no way yet of accurately distinguishing latent ability from early social and psychological dysfunctions. The problem finally centres in the question, 'what is the nature of mental ability itself, what is intelligence?' The operational answer in much research has been 'Intelligence is what the intelligence tests measure', which becomes circular in its logic. If the IQ tests are not culture free, a difficulty arises as to how much mental ability is seen as a function of the environment in prenatal conditions and early socialisation and how much it is seen as innate or 'inherited'. Studies by Fowler (1962), Jensen (1963), and Hunt (1964) imply that the environmental determinants are significant enough to be analysed and modified. They report the existence of successful remedial work at the primary school level in terms of cognitive development, perceptual and language skills. The inference here then is that whatever the nature of the genetic potential in mental ability, it is not so exclusive a determinant as to be the totally binding or the prerogative of the lower class or any ethnic minority group.

Given the above proviso however the difference in performance remains for lower SES pupils.

"Lower class children were (found to be) relatively poorer in auditory discrimination, in manipulation of syntactical aspects of language and in recognition of perceptual similarities."

(Deutsch 1965)

Again a number of investigators have noted perceptual

styles and habits among lower SES children which are inadequate or irrelevant to academic efficiency. Leshan (1952), Deutsch and Brown (1964), Reissman (1963) concluded that:

"Probably of greatest significance is the absence of any high degree of dependence on verbal and written language for cognitive cues. Many of these children have not adopted perceptive and expressive modes traditional to and necessary for success in school."

Given a disadvantage in perceptual and cognitive skills the lower SES pupil has less wherewithall and consequently less motivation to succeed. Deutsch (1963) found that lower SES children tended to ignore difficult problems with a 'so what' attitude and that this ultimately affected their learning. Resultant inadequacy from such experiences was detected by Goff (1954) among lower SES children. This has been related to low self esteem (as indicated before), impaired patterns of personal-social organisation, high incidence of behavioural disturbance and distorted interpersonal relationships - (Ausubel & Ausubel 1963, Battle and Rotter 1963, Goff 1954 and Keller 1963).

Given the plethora of data accumulated over the last twenty years (and only briefly sampled here) the qualification made at the outset of this section remains and it is important to get behind what the test and ability test scores of different social groups mean. Klineberg (1963) has stressed the need to control for cultural and social psychological effects. The theme discerned for home environment and for achievement orientation returns; that mediators and interventions from the situation and its history impinge. Hewer (1965) has even argued that predictions for mental ability and achievement might be more accurately made for particular social groups than for total populations. Goffman (1964) warned against

measuring of the mental ability of children from different cultural backgrounds within society. He argued that when tests were employed for assessment rather than for prediction, intergroup comparisons should take into account variables other than test scores alone.

In terms of New Zealand education, the issue of Maori-Pakeha educational differences has been a much debated issue, although with a dearth of empirical research data. Conceptually at least the main axis of the controversy stems from Maori-Pakeha differences in education being seen as either socioeconomic or cultural effects. It has been suggested that Maori educational problems as evidenced over the last century are due principally to socioeconomic factors (Gregory 1974) ie: that Maori under-achievement is a function of their exhibiting predominantly lower socioeconomic status than Pakehas, and not due to some peculiarly Maori cultural dissonance with European educational modes and aims.

By way of contrast it has been suggested by Walker (1973) and the congruent views of Dewes (1968), Bray (1973) Schwimmer (1973) and Walsh (1973) that Maori-Pakeha educational differences stem from cultural differences that operate independently of socio-economic differentials. Given cultural differences impinging upon school clientele, resultant performance measures reflect the inflexibility of the school in adapting to such cultural differences and not inherent environmental deprivation deriving from lower SES. Harker (1976) citing the work of Lovegrove (1964; 66) indicates that the argument for socioeconomic impingement over and above ethnic-cultural impingement as a predictor of differential school performance may in part be due to misleading statistical inferences. The debate continues; however, it seems reasonable to suggest that given the fact of differential performance, some measure of the social psychological referents pertinent to pupils of different ethnic origin and their orientation to achievement may reveal a further factor in the explanatory pattern.

The interdependence of linguistic function with intellectual function is axiomatic to psychology and educational practice, but it seems reasonable to suggest that the social psychology of early cultural socialisation, infant vocalization, development of comprehension, cognitive style and family communicative modes may become socially constituted as to make some pupil performance a result of dysfunctional or functional background. (Deutsch and Brown (1964), Bernstein, (1960), Labov (1964), Anastasi and Diangelo (1962), Rada (1965). PAT scores and Otis IQ results may to some extent be tracing social and cultural differentials rather than purely latent mental ability patterns. A measure of the social and cultural milieu then and of pupil perception of the situation might better complement whatever use or inference may accompany test scores.

Patterns in the School

The review so far has sought to isolate a sample of the findings related to preschool and extraschool socialization, as they are seen to affect school performance. Trends and behavioural patterns in the school may also be seen as part of and integral to the operation of influences from the wider social group, in that schools perceive, define and respond to their clientele in certain ways. Similarly, their clientele undergo the same process of perceiving, defining and responding to the school situation. Stinchcombe (1964) has reported that competition, SES and goal orientation appear to be differentially distributed among high-school students.

"Sources of boredom and rebellion in the high school classroom were revealed. Such behaviour has been termed as expressive alienation, which is characterised by (a) short run hedonism, (b) negativism with respect to conformity and those who conform, (c) the perception of the status system as unfair, particularly as administered by the school authorities, and (d) demands for autonomy and freedom from

adult interference. This psychological state may arise from an inability to meet school demands ... (from middle class pupils who become rebellious consequent to low achievement) or, in the case of other students, it may arise from a lack of articulation between school activity and future status. For those students whose class, racial, or ethnic background, or intelligence, leads to the expectation that they will not achieve the desired level of occupational status under any circumstances, achievement in school makes little sense. Grades and other indicators of successful progress towards desirable adult status have little meaning. In search for other symbols which provide assurance of growing up, these children prematurely demand adult status and reject the cultural doctrine that authority should reside in adults, to the degree that the disadvantaged child has internalised success goals, he will evidence rebellion".

The irony then exists that the school may by being partially successful and being seen as a theoretically valued experience, induce rebellion in pupils who while appreciating the pull of its normative demands to some extent, are unable or unwilling to participate fully in educational tasks. Stinchcombe (1964) adds here:

"The major practical conclusion ... is that rebellious behaviour is largely a reaction to the school itself and its promises, not a failure of the family or community. High school students can be motivated to conform by paying them in the realistic coin of future adult advantages. Except perhaps for pathological cases, any student can be made to conform if the school can realistically promise something valuable to him as a reward for working hard. But for a large part of the population, especially the adolescents who will enter the male working class or the female candidates for early marriage, the school has nothing to promise".

An interesting qualification to this conclusion is provided by Coleman, Campbell and Hobson (1966) in their large American study.

"Whereas the child from the disadvantaged background benefits by attending a school where

the students come from homes providing a favourable background, the child with the favourable background appears relatively unaffected when placed in school where the children are largely drawn from disadvantaged backgrounds".

It might be inferred here that the influence of the home environment is the more dominant factor in the causal pattern, in that an advantaged home stressing and enabling achievement continues its effect naturally, whatever the school is like. This might be contrasted with a 'disadvantaged' home, which while not opposing achievement, may not stress it, making the children more vulnerable to dysfunctional forces in the school.

Three variables thought to contribute to the social climate of the school, which may have consequences for achievement have been reported by Backman and Secord (1968) as (1) attributes that entering students bring with them, (2) characteristics that the school itself exhibits as an institution, and (3) informal social structures passed on from one generation of students to another. It is the first category that is thought to determine the school climate most. Ironically, it is the least amenable to change.

Perhaps one of the most interesting school perceptions of client characteristics, is the streaming process practised in many schools. In the United Kingdom findings seem to indicate that placement in streams is not always in proportion to the abilities of pupils from families in each occupational category (Jackson, 1964; Douglas, 1964).

This is probably not entirely analogous with the New Zealand situation, where streaming usually occurs on the basis of Otis IQ scores, PAT scores and reports from previous schools. However, the whole endeavour of ability grouping has been quite strongly attacked by a number of studies, indicating its limiting and rigid nature in terms of potential ability. It also seems that superior performance pupils in ungrouped schools make the same amount of progress as a similar sample of pupils in streamed schools (Tillman and Hull, 1964). The inference here again is towards a tightening of a number of given indices (to a certain extent arbitrary and questionable themselves) by setting up structures which create performance as much as reflect it. At the macro sociological level it could be argued that such streaming serves to mediate perceived class correlates, solidifying and maintaining them. The consequences at the psychological level may also be questionable, especially with regard to self-esteem and acceptance. Tillman and Hull (1964) found that fewer pupils in randomly selected classes were labelled as social isolates on sociometric tests.

Teachers are another factor that appear to be integral to the influences on pupils at school.

"The more positive the childrens' perception of the teachers feelings, the higher the child's own self image, the better the child's own academic achievement, and the more desirable his or her classroom behaviour as rated by the teacher".

Backman & Secord . (1968)

However, these mutually reinforcing variables may not in fact correlate highly with pupil affect toward teachers within a

certain range. Teachers labelled as friendly have not always been found to be most successful at teaching Brookover (1945). Certainly from an explanatory point of view, Wallers' (1932) analysis of the sociology of learning would seem to reinforce this, that the tension of the teaching situation is to a certain extent coercive.

Becker (1952) and Kaplan (1952) have found that class enters into this interactive setting in that lower class children have been considered to be less rewarding to teach given their attitude ability and response in the classroom. An interesting study by Silberman (1971) focused on teacher affect with regard to pupils. He analysed teacher-pupil interaction in the classroom, in terms of whether the teacher had labelled certain pupils as being, for them, cases of attachment, concern, rejection or indifference. A series of follow up and replication studies showed attachment students to be bright, conforming and generally rewarding to the teachers. Indifference students were found to have low rates of interaction with teachers; concern students were found to have higher rates of interaction with teachers while rejection students were found to be behaviour problems and to be generally active in the classroom in a non-task way. However, this warning is sounded by Brophy and Good (1974).

"The effects of teacher attitudes on teacher-student interaction are not simple and universal. The degree to which teacher attitudes affect teacher-student interaction will differ from teacher to teacher. As with teacher expectations, it seems to us that the more competent the teacher is, the more secure and confident he is, the better his personal adjustment is, and the more aware he is of his attitudes and their possible effect on his behaviour, the less likely his teaching is to be influenced by his attitudes towards individual students ... it seems unlikely that particular

student attributes have simple and universal effects in triggering specific teacher attitudes. Although it is likely that the great majority of teachers will react to a given student attribute positively or negatively, there is room for much interaction between particular students' personality traits and particular teachers' personality traits., so that a given student might be liked by one teacher but disliked by another".

However, there remain the results of longitudinal studies which suggest that attachment, concern and rejection students have somewhat stable and general traits which make them likely to strike teachers similarly, but that indifference students do not exhibit such stable patterns of behaviour. An interesting development here is the possibility of correlations of such phenomena with SES categories; a theme to be investigated in this thesis.

Some work developing the above theme, was conducted where Davidson and Lang (1961) found that even early on in primary school, working class children tended to perceive teachers as less approving than middle class students. Brookover (1945), studying this theme at the secondary school level, has indicated that pupil-teacher identification may well be influenced by the discrepancy between parent-teacher discrepancies. The trend in research at present is towards indices and analysis of teacher behaviour rather than teacher characteristics however, notably in the work of Flanders (1960). Banks (1968) suggested in fact that the teacher-pupil relationship is the most important unit of interaction in the school, although peer groups and other aspects of the community reflected in the school, or structures inherent in the school, do impinge.

At present research appears to contradict more than agree on the relative power and operation of student groups: Turner (1964), Riley and Riley (1961), Kendel and Lesser (1969), Snyder (1969). The relative impact of the adult and peer group and the amount of conflict between these 'significant others' has not yet been resolved; quite often it seems to depend on the situation researched. Work in reference group theory is just beginning to come into its own within educational research, in terms of the above impasse, particularly in the light of the very influential Parsonian theoretical formulations on this matter. Parsons (1959) has asserted that:

"the individual headed for higher occupational status will choose peer groups that tend on the whole to facilitate his progress in this direction ... this can also be a major factor in reinforcing the child's predispositions in terms of his own ability and its encouragement in the school, to transcend the expectation of his class origin".

This appears to be generally supported by subsequent work by Simpson (1962), Ellis and Lane (1963), Turner (1964), where findings indicate that ambitious working class boys tend to have more middle class friends than unambitious working class boys.

An interesting finding by Turner (op cit) indicates that the stratification of peer association tends to form on the basis of ambition, rather than class background. Middle class values seemed to be correlated more with stratification of destination than with stratification of origin. These studies, however, did not include dropouts in their sample and parental background may in fact be more powerful than they suppose. There remain many methodological problems since, even in the example above, there is no guarantee that the more socially mobile working class boys were not in fact

orientated this way by their parents, prior to school peer contact.

Social Psychology has labelled the possible influences deriving from peer power and teacher-pupil affect as the subinstitutional structure underneath the institutional structure of role expectations and role behaviour in the school. These two structures have been seen as the chief sources of stability in the behaviour of persons in all social settings. For example, Gronlund (1959) in using sociometric analysis to probe into subinstitutional patterns has reported that a person is most likely to choose; (i) people with whom he has a greater opportunity to interact; (ii) people who have characteristics most desirable in terms of the norms and values of the group; (iii) people who are most similar to him in attitudes, values and social background characteristics; (iv) people he perceives as choosing him or assigning favourable characteristics to him, and (v) those in whose company he has experienced need satisfaction. Bonney, Hoblet and Dreyer (1953) have analysed such findings in terms of exchange theory. It is possible that patterns of interaction may be found which facilitate the achievement of educational goals and buttress the role pattern; however, some sub-institutional patterns may operate independently of or in opposition to institutional modes and aims. In terms of exchange it may be that interpersonal rewards are gained by certain groups of pupils (perhaps from 'disadvantaged' backgrounds) by participating in subinstitutional modes contrary to the official normative pattern. Most of their needs may not relate to educational task goals, or the formal system may

not achieve the task goals for them. The interrelationship of such modes with SES and achievement will be another pre-occupation of this thesis.

Conclusion

Sources of differential socialization and subsequent differential school achievement have been reviewed and precised here in terms of any pattern of social, ethnic, familial, economic, or geographical factors which combine so as to interfere seriously with educational and vocational fulfillment of individuals. In America particularly the analysis of disadvantage has arisen from a concern for equal opportunity to learn and improve and is a concern which has in part prompted much research in the sociology and social psychology of education. Cultural and social disadvantage are often seen as impediments to equal opportunity. Mothers, peer groups, home conditions, motivation, linguistic differences, cognitive processes and teacher behaviour and expectations among others have all been included as variables. They are seen to bear their collective fruition in the classroom and most significantly at the time of achievement assessment. In terms of collective interrelationship, for example, language may be related to social group, motivation to peer group, socialisation to home conditions and teacher expectations to student manner and appearance as partial predictors of school achievement.

There have not been any cumulative studies unifying the often fragmented nature of research in the past, therefore, the need for interrelationship in research remains. Many of the variables listed above intervene upon each other to such an extent that any cumulative work at present would only reveal a 'soup' of

findings without any obvious body to it. Nevertheless, the trend towards integration continues both conceptually and operationally.

Several methodological points need to be made here, in that research of the above kind is limited to a certain extent operationally. The first limitation is that, on the basis of present statistical method prediction does not constitute explanation. Correlates are always 'an inference away' from the actual case and are therefore vulnerable to misinterpretation. Secondly, it has **not** always been clear on what theoretical and statistical grounds the choice of dependent and independent variables are made. A pervasive interest here has been with the family as a socialising agency, acting as an independent variable. Often within the sociology of education the family is seen as performing a status assigning function: an individual's social class position is usually measured by the SES status of his family. From this it has been argued that the higher the SES the higher the student's aspiration and consequent achievement. The school as an independent variable on the other hand usually involves the researcher in classifying schools as lower or middle class by the status of their students and then making some comparison with the lower class or ethnic group integration or achievement. Difficulties with oversimplified and misrepresented variables may lead to irrelevant research.

This review, as a sample of research studying the influences behind school achievement has presented part of the range of patterns so far discerned. Its point was to unravel

mediators of and interventions to the gross summary categories, breaking them down into more refined variables. By way of summary then, some social groups bring to school a lesser personal valuation of education in general and less desire to achieve in the school setting, along with a store of social and cultural experiences and adult contacts that may actually shape IQ scores and other measures of ability. The emphasis of the thesis will be to continue the investigation of this theme by positing and analysing a series of social psychological mediators and intervenors, that interpret variables already revealed in the sociology of education. This attempt in particular develops the work of Siblberman, in Brophy and Good (1974) in terms of teacher affect; the work of Gronlund (1959) and others in sociometry, and finally, peer group studies. To these it adds the social psychological conceptualisations developed in recent reference group theory and a Symbolic Interactionist notion of the definition of the situation.

- CHAPTER II

The Theoretical Base

Introduction

Chapter One examined the relationships between selected environmental variables and educational achievement. In doing so it took its lead from traditions that have developed in the study of inequality of educational opportunity. It thus placed greatest emphasis on the interrelationship between SES and achievement and ethnic origin and achievement, two main pre-occupations of much recent work. As well the trends and patterns discerned raise the issue of their theoretical implications. The present chapter seeks to provide a conceptualisation that might serve as a means for interpreting the sociological and social psychological patterns described. Inevitably a restricted view of achievement and its associated reference influences is possible here. The aim is not to identify reference groups per se or with their intricate characteristics. Rather the concern is to isolate and investigate one feature of reference group orientation as it relates to some selected sociological, educational and school behavioural and performance measures. The aim then is not a pervasive or sufficient understanding and interrelation of Symbolic Interactionist and referent group theory, but rather some of their conceptual implications within the social psychological dimensions of the study sample. An attempt will be made to argue that the twin concepts of reference group orientation and the definition of the situation derive in part from SES and ethnic origin and carry within them distinctive influences from home environment, motivation state, and intellectual-linguistic variables. Such referents and definitions interpret the school setting in different ways. It is suggested that these two variables relate highly to academic performance.

A simple model is presented that hypothesizes a pattern of sociological and social psychological relationships impinging upon

school performance. The model draws upon inferences from the research reviewed and by modifying them with an index of reference group orientation hypothesizes their relative predictive power.

A Conceptualisation from Symbolic Interactionist Theory

Axiomatic to a symbolic interactionist understanding of man and society is the assumption that the process of interaction will determine the structure of mens' relations according to the conditions prevalent. Radcliffe Brown (1935) from a contingent perspective has also seen it as axiomatic that a social system is always a dynamic system of human activities and relationships in time. Sometimes this dynamic is in a condition, relative to other surrounding conditions, in which its activities continue to reproduce more or less the same pattern. This capacity of activities to sustain and perpetuate themselves he refers to as a "synchronous account" or structure.

The nature of human interaction finds its heart in the nature of human psychology, for symbolic interactionism. William James (1892) first thought of mans' mental life as comprising both naked consciousness and habit. These he labelled the "I" and the "Me" respectively. The "I" is the self as knower or pure ego, and the "Me" is the self as known by the "I", being the empirical aggregate of things objectively know about oneself. C.H. Cooley (1902) formulated a sociological extension of this insight by positing a 'social self' based on the "Me". Society, he said, was a mental phenomena, a relationship between personal ideas. A person partly came to create a social self on the basis of his interpretations of other opinions of him, a looking class self or reflected self. It was Cooley (1902) who initiated the idea of the primary group (under a different label) as being fundamental to socialisation, in that it was there that a person's 'self' grew and one's sense of 'the social' grew. This constituted the first link

in the chain of interaction that results in society. Thomas continued the theme, developing a more sociological conceptualisation. He was strongly pragmatic and, with Znaniecki (1936), stressed the dependence of the social life and the individual on each other. Attention was the factor whereby individuals took note of the outside world and manipulated it, via mental attitudes. Thus prior to any self determined act an individual possessed a definition of the situation; being the integration of the social self, values, habits and information to form an interpretation held by the individual of the social situation.* On the basis of this definition the actor behaved.

A detailed collection and analysis of thirteen reported components of the definition of the situation that relate to behaviour has been completed by Stebbing (1968). Their components are:

1. Identification by the identity incumbents of the relevant others present.
2. The incumbents' perception of the evaluation that those others have made of the situation, including the moral and emotional or sentimental connotations of the immediate setting as they are established with reference to others' identification of themselves.
3. The incumbents' perception of the goals or intentions of the others while in the setting.
4. The incumbents' perception of the plans of action (strategies for reaching the goals) of the relevant others.
5. The incumbents' perception of the justifications or vocabularies of motives associated with the others' plans of action.
6. The incumbents' evaluation of the situation.
7. The incumbents' plans of action.
8. The incumbents' justifications of the plans.
9. The identity incumbents' perceptions of the identification of them by relevant others.

* Appendix B contains a list of conceptualisation and research that relate to these aspects of the definition of the situation.

10. The incumbents' perception of the evaluation of the situation imputed to them by the others.
11. The incumbents' perception of the intentions imputed to them while in the situation.
12. The incumbents' perception of the plans of action imputed to them.
13. The incumbents' perception of the justifications of the plans imputed to them.

The above components are modified and operationalised in this study.

Influenced by Mead (1955), Cooley (1902), and Dewey (1938) in America, Thomas (1927) posited two central problems constituting the centre of attention of all social practice; being (A) the dependence of the individual on social organization and culture (the constituents of the situation) and (B) the dependence of social organisation and culture on the individual (the definer of the situation). Sociology pursued the social meanings in interactive patterns and it needs both, to afford sufficient analysis. Theory therefore needed to meet this criterion by establishing (a) the cultural elements in social life, and (b) the subjective characteristics of members of the social group, summarised respectively as social values and attitudes. Values, for Thomas, were defined as "objects in the world to which attitudes were addressed" and attitudes as "the process of individual consciousness which determines real or possible activity of the individual in the social world". The intimacy between man and society first introduced by James and Cooley becomes more complex in Thomas' elegant theory of the derivation of social structure. Social institutions comprise a committed and moderately harmonious system of norms for behaviour; the totality of these institutions found in a concrete group

constitutes the social organisation of the group. The individual is meshed into this group by virtue of his identification with most of the rules of behaviour. In a definition of the situation, the situation taken is the set of values and attitudes with which the individual has to deal, in the process of human activity. Personality facing the gamut of situations from conception to the grave develops along "typical lines of genesis of a series of events in which attitudes develop from other attitudes in the social milieu". The individual is thus a product of interaction.

At the same time Thomas was formulating his 'interactionist' conceptualisation, G.H. Mead (1955) was changing the inner structure of this kind of social behaviourism, now actually called 'symbolic interactionism'. Mead concerned himself with the study of observable activity, the ongoing "social process" as he called it. Mead felt that a true understanding of society and 'the social' was to be found in individual and shared meanings and only such an understanding was able to reveal the reality of social processes.

"Social life represents the interaction of creatures of the same type. Social interaction implies that the activities of one creature are in part the bases of action of another".

Mead concerned himself with the mechanisms that made complementary behaviour possible, conceptualising these as gestures, symbols and role taking. Gestures are the means by which non-human social action is possible: one movement, learnt or innate, served as a signal from one animal to another of meaning or action. In human life, language rather than gestures operate; language functioning as a significant symbol, attributing meaning to something at a complex level of development. The social act, being an act

that occurs in a group situation, is vested with meaning, since the person who acts usually appreciates the action's social significance and those who observe it appreciate some sense of its intention. Because adequate socialisation in the meanings of acts is necessary for people to understand each other and is also vital for language, then meaning and mind have their origin in the social act.

Following the earlier definition of self, Mead suggested that a self is possible only to a creature that can be an object to itself (a "Me"), a characteristic only possible in society and by means of role taking and language. The process whereby self is produced is the process of role taking; by taking the role of "the other" (the models and reflectors of self in the other significant others present) a person achieves a knowledge of himself as some kind of personality. Society, then, in that it is the ultimate generalised other thus penetrates the individual with every term, meaning or symbol he acquires or employs. An internalisation of the norms of behaviour from the first primary groups and later from aspects of the generalised other gives the individual his unity of self; he becomes an integrated member of a community in a very deep sense. Mead (1955) and Thomas (1927) postulate that society is organised in a very similar way.

"The institutions of society are organised forms of community or social activity, so organised that the individual members can act adequately and socially by taking the attitudes of others towards these activities".

Mead (1955)

The individual, just as on the intimate level of self achieves social self by recognising what rules are shared and by sharing, forms part of social life.

Man then is seen as living in a symbolic world as well as a physical environment and can be stimulated to act by symbols. A meaning becomes a value when some learned attraction or repulsion is felt by people towards it. To the extent that most symbols are shared meanings and values, then 'consensual validation' is achieved. Degrees of lack of consensus is also possible. Man alone is capable of this 'symbolic interaction'. Man then has the capacity to stimulate others in ways other than those in which he is stimulated. This is done by role taking through the communication of significant symbols, symbols which can influence others. Significant symbols are learned in socialisation which are to be distinguished from natural symbols, which are the instinctive evocation of some bodily response. The social communication of symbols is facilitated by role playing because the communicator must realise what meaning the receiver will attribute to his communicative act; to do this the communicator takes the role of the receiver, and presumes some kind of reception.

From this point, through the communication symbols, man can learn vast numbers of meanings, values and actions from other men. Through the learning of culture (an organization of accumulated and regulated symbols) men are able to predict each others behaviour most of the time in normal situations, and gauge their own behaviour to the predicted behaviour of others. Society depends on this for cohesion and integration, at least at the minimal level that makes it recognisable as a society.

Symbols are never found in isolated segments, but most commonly in clusters that may be large and complex. In this sense a role is a cluster of related meanings and values that

guide and direct an individual's behaviour in a given social setting. Structure also becomes a cluster of related meanings and values that govern a given social setting, including the relations of roles to each other. Such structures with a tendency towards consistency or continuity may be seen as institutions. The man - society link is complete when it is realised that from a symbolic interactionist standpoint structure and role are the same thing, one viewed from the standpoint of the social setting (the macro perspective) and one viewed from the standpoint of the individual (the micro perspective). A social structure or system then is not an exclusively autonomous organism that seeks to preserve its function over and above the actors it shapes, but a human idea that has for a time become regulated in a stable way, being capable of change internally all the time, given the idiosyncratic definitions of the situation, meanings and values that individuals bring to its patterns. A structures' patterns exist prior to an individual's involvement by role taking in them, but they are susceptible to that individual's interpretation of them and his subsequent behaviour, which may involve a host of subtle variations to 'given' attempts at role making.

A Conceptualisation from Reference Group Theory

Reference group theory can be seen to continue the theme developed by symbolic interactionism in a very intimate way. Shibutani (1955), following Hyman (1942), (the first to use the concept), employed the concept of reference group to explain the ability of people to define situations from the same standpoint as others; making personal verification and

integrity possible. A reference group is a group whose perspectives are employed by the actor or referred to so that a support or 'sounding' enables one to conceive of the world as a relatively stable, orderly and predictable place. This construction of social worlds through reference groups explains another aspect of the social process; that involvement in one group, milieu, subculture, collectivity or association does shape and or reflect much of the way one looks at the rest of the world, what meanings and values one perceives and perhaps acquires.

"To understand what a man does we must get at his unique perspective - what he takes for granted and how he defines the situation ... but in mass societies we must also learn the social world in which he is participating in a given act".

Shibutani (1955) .

This suggests that men act in a frame of reference yielded by the groups of which they are a part.

One of the most basic distinctions within this perspective is that between comparative and normative reference groups, as suggested by Kelley (1952). These distinctions correspond to the two functions of reference groups; as standards of comparison for self appraisal or as the source of the individuals nor attitudes and values ... Positive and negative groups posited by Newcomb further indicate that individuals may form their attitudes in opposition to the perspective of a group as well as seeing themselves in congruence with them. French and Raven (1959) introduce an important clarification within the theory implying that the power of reference groups lies essentially in the fact that the individual, by his identification with the group willingly accepts, and is moulded by, what he perceives the groups' norms to be. This

may apply whether the reference group is also a membership group for him or not. This can be contrasted with the coercion or concrete sanctioning of a membership group which may seek to exact identification, or at least conformity. Hyman and Singer (1968) indicate that the combination of this concrete or real power with referent power is the highest form of personal and interpersonal attitudes and behaviours. Conformity to the membership itself thereby becomes much more comprehensive. By contrast non conformity if acted out behaviourally requires a resolve dependent on referent power alone.

"When for motives of honour and conscience I brave the condemnation of my own family, club, set... I am always inwardly strengthened in my course and steeled against the loss of my actual social self by the thought of other and better possible social judges than those whose verdict goes against me now. The ideal social self which I seek in appealing to their decision may be very remote....yet still the emotion that beckons me on is undoubtedly the pursuit of an ideal self social, or a self that is at least worthy of approving recognition by the highest possible judging companion, if such a companion there be...all progress in the social self is the substitution of higher tribunals for lower.

Hyman & Singer(1968)

The above process may manifest itself in an aspiration to belong to some concrete membership group in the future that embodies one's ideals and attitudes. This is labeled by Merton as 'anticipatory socialisation'. A further reality of modern life is that individuals often have multiple reference groups. The possibility exists, increasingly so, that certain reference groups govern certain specific attitudinal spheres, that differences exist in the legitimacy that individuals accord to groups promulgating norms in various spheres and finally that multiple reference groups impinge simultaneously on the same situation - acting in a reinforcing sense to each other and or producing conflict.

Perhaps one of the most potent uses of the concept of the reference group lies in its application in terms of complex interaction situations, where somewhat contradictory demands may be made upon the individual (Sherif 1953). This implies that the individual responds to many different values and personal influences with each new situation. Conflicting demands by those in his role set or status set require some kind of selection on the part of the actor; the choice of viewpoint he finally makes constitute his reference group. Hyman and Singer (1968) indicate here, that given the multiplicity of groups and the variability among individuals and situations we must determine "which kind of groups are likely to be referred to by which kinds of individuals under which kind of circumstances in the process of making decisions." The same authors introduce the motivational concepts of the 'reality' and the 'pleasure' principle. In terms of pleasure the individual chooses a normative reference group so that in fantasy, or ultimately in fact, he can attain membership of a more favoured group. Alternatively an individual may adhere and become anchored in a firm group during a time of rapid social change to order the distressing complexities of the environment. Enhancement of self regard socially and personally and the protection of the Ego, exemplify the pleasure principle.

The reality principle may coact with the pleasure principle in that it orders the possibilities for comparison, aspiration and guidance. In Stouffers et al. ⁽¹⁹⁴⁹⁾ study of the American soldiers, it was the more advantaged soldiers who felt deprived, because they chose to compare themselves with others who were even better off. There are also some examples in the research where a groups standing is so low or so high that it ceases

to be relevant as a realistic basis for comparison; Winter (1955) Hyman (1942), Merton (1957).

Reference group orientation or attraction is only possible when there is at least some perceived similarity between groups.

Social demands involve the general pressures upon an individual in a pluralistic society to take one perspective rather than another. The membership in a group, collectivity or social category for example impinge upon the actors actions and thoughts. By birth and social class ascription people are often placed in certain categories and these tend to limit the opportunities open to them in some areas and open them up in others. Turner (1956) points out that a middle class child is taught to respect his parents but to ignore "bad boys" and other persons whose value systems and behaviour are considered wrong. If he belongs to a gang it may tell him to listen to the gang and ignore the values and opinions of his parents the police and other out-group persons who are identified as enemies. The hostility and isolation from these outgroups then remove them as potential reference groups. Sutherlands concept of differential association applies here in that one's place in the social structure will influence ones perspective and one's behaviour patterns i.e. one's choice of reference groups. Social distance reinforces this process so that one's decision and one's subsequent behaviour are reinforced positively, since negative reinforcement from non reference group influences are reduced or labelled and 'explained' by the others of one's group and perspective.

As a sub-theme of the above effect the solidarity of the group is an important variable. The attraction to a group is more than the sum of the attractions to individual members,

or the factors outlined above; the group as a whole varies to the extent of its togetherness. It seems that the more cohesion the group exhibits the more functional this is for membership maintenance and the greater the attraction power of the group. This has important implications for social demands and reference groups since the greater the 'mesh' between members from similar values attitudes and beliefs in a social situation, then the more likely the solidarity and the subsequent consolidation of the group. "In short, solidarity is created by the development of consensus and interdependence " (Hyman and Singer, 1968).

In a very real way reference group theory and research has so far provided the most plausible explanation for the way in which Society is 'mediated' through to the individual. The reference group constitutes his choice and mode of participation and often determines what he 'sees' and where he goes in Society. This is well illustrated in the work of Berelson, Lazarsfeld and McPhee (1954) through the study of voting behaviour. In general their findings indicate that one's direct associates tend to mediate the influence of the larger social environment and that opinion leaders or significant individuals (as opposed to categories or collectivities) seem to have the greatest impact on the individual. However the recent popularity of reference group theory brings the danger, in Sherif's words, that the concept is "becoming a magic term to explain anything and everything concerning group relations" Sherif (1964). The concept is often referred to without definition (which is confusing in the light of the several possible types of reference group) and the influence of a particular reference group alleged without the support of direct evidence to suggest that it even exists in the minds

of the actors. Many of the key assumptions inherent in the Theory remain untested on a scientific basis and Hyman (1968) calls for a new "Scientific regime" in the field, comprised of rigorous empirical studies. Examples of these are contained in his coauthored book 'Readings in Reference Group Theory and Research' in the hope that arbitrary research will be avoided and a cumulative attempt at theory be instigated.

Within Reference Group Theory comparative and normative notions are sometimes unified. Self appraisal depends upon social comparison, and the choice of a comparative reference group maintains, injures or enhances self regard. This conceptualisation meshes in with other Social Psychological work concerning the 'self'. Many Developmental, Educational and Social Psychologists concern themselves with tracing the ebb and flow of positive and negative self concepts as a child grows and takes as his point of comparison various social circles through which he moves. Thus the comparative reference group works through the intervening variable of the Self. The normative reference group operates more directly through the internalisation of what is perceived as appropriate behaviour. Both processes start with the same elements: Society provides the varied assortment and complex arrangement of groups from which choices are to be made. The important factor here is 'choice', since individuals may be strongly pressed and yet not identify. It seems that humans tend to be creative in this regard and their symbolic equipment being highly developed, can present to the minds eye a much larger gamut than his immediate experience. Thus the individual maintains some control over his own self regard or self concept by his 'choice' of comparative reference groups and guides his fate accordingly. Also, by his 'choice' of normative reference groups, he can escape from the narrow

confines of certain impinging social worlds. The fact that, this is a possibility at least is indicative that reference processes are in part a self direction, as well as in part a response. Finally, the point is indicative of the fact that membership is not always congruent with referent power and that the beat of a different drum is heard despite the exigencies of the immediate physical situation.

A Case Study

A specific conceptualisation with regard to all that has so far been said which is seminal to the theory and method of this thesis, is a paper by Kemper (1968) on Reference Groups and achievement. Kemper traces the gross influence of macro-sociological forces on the individual and argues for a microanalytic level of factors which mediate and comprise the social-psychological basis for achievement in society. These he finds in three types of reference group as facilitating optimum achievement, being normative, comparison and audience groups. For Kemper normative reference groups are:

"groups or collectivities that provide the actor with a guide to action by explicitly setting norms and espousing values. The normative group expects the actor to comply with these norms and values, and makes quite plain its expectations ... it does not matter whether or not the actor complies willingly. Nor does it matter if the individuals assess the norms and then respond in a contra-normative manner ... the main identifying characteristic of a normative group is that the individual acts in reference to norms and values it has promulgated and which in some way it has brought to his attention".

The comparative group that provides the actor with a frame of reference which services to facilitate judgements about any of several problematic issues viz (a) the

equity of one's fate, (b) the legitimacy of one's attitudes and actions, (c) the adequacy of one's performance or (d) the accommodation of one's acts to the acts of others. The equity group exists as a comparison for deciding the justice of one's fate. The legitimator group exists where referents are seen to support and justify one's position. The role model referent exists where a group or person indicates and shows how a task is to be done in a technical sense. The accommodator group exists where similar and supportive behaviour is perceived in co-operative situations and parallel behaviour is perceived by others by the individual in competitive situations. Behaviour is accommodated or adjusted to this 'other'. Audience groups demand

"neither normative nor value validation behaviour of the actor for whom they serve as referents ... the actor, however, attributes certain values to the audience group and attempts to behave in accordance with those values. The audience group may have expressed its values in some concrete instance so that they are known by the actor, or the imputation of values to the audience may be purely a matter of speculation by the actor. In either case the actor will be guided by what he understands his audience's values to be".

Kemper makes the point that these distinctions are analytical and that empirically their nature and function could be simultaneous and identical; he argues, however, for these categories as useful indices in empirical work.

The aforementioned reference groups, he argues, play a significant part in the socialisation process and affect a particular type of socialisation outcome. Through the inter-relatedness of such groups society can mediate and effect conformity with basic cultural patterns (normative reference

group power), adequacy of role performance (comparative reference group power) and, not least of all, achievement (audience reference group power). The thesis here for all that has been reviewed and conceptualised is that such referents contribute in large degree to the mediation of the cumulative effects of environment, intellectual, motivational, linguistic difference; that such differences achieve their social psychological shape in these influences and are formed and maintained by them.

Kemper makes the point that achievement may be seen as ipsative, ie: (a) an individual may perform very well given his own normal level, but still be average in terms of his peers. In this sense, an underachiever is one who performs below his normal level, or a high achiever, one who performs above his normal level, and (b) the normal state of an individual's performance relative to his capacity may be high or average or low. It is argued that it is the ipsative achievement, not the more prominent achievement deriving from norm aggregates that the major agencies of socialisation deal with.

"it is central ... that in order for ipsative achievement to take place, not only must the socialisation process provide normative groups and role models (for the task), but audience groups must be available as well".

Kemper (1968)

Of their nature normative reference groups operate sanctions in terms of negative reinforcement, and of their nature audience groups mediate rewards either concretely or in the mind of the actor. Comparison groups describe and facilitate the situation for the actor but do not exert sanctions as such. Kemper sees the implications conceptually as follows in Figure 2.1.

Figure 2.1

Characteristics, Functions and Sanctions of Reference Groups

Reference Group	Defining Characteristics	Function	Sanctions
Normative	Provides norms and values	Assigns individual roles; specifies standards	Punishment or negative reinforcement
Comparison	Provides:		
	(1) equity standard	(1) basis for satisfaction with one's fate	None
	(2) legitimation	(2) legitimates actions or opinions	None
	(3) role model	(3) exemplifies how role should be played	None
	(4) stimulus for action	(4) basis for accommodation to behaviour of others	None
Audience	Values imputed	Creates pressure for achievement	Reward

Kemper; in Am.Soc.Rev., 1968,33 (1) pp.31-45.

It has been inferred here that these three types of achievement operating within the socialisation process are necessary for achievement.

"The first sets down fundamental role prescriptions and obtains conformity to them by threat of punishment. The second provides examples of how to play the role adequately. The third provides the motivational impetus for high level role performance by actually or apparently offering rewards".

Kemper (1968)

Kemper analyses the consequences of the omission of the influence of one or more such groups in terms of achievement, cases which he cites as 'deviant'. He further outlines a development of this, where the content of influence from all three groups may differ from group to group. It seems reasonable to suggest that where coincidence of reference groups is uniform in content, the highest or optimum level of achievement might be expected. It is the latter variant that is employed here as a tool of analysis. Kemper lists the following possibilities of degrees of coincidence, although altered into a distinctive hierarchical form here for the purposes of the present study.

Coincidence of normative, comparison and audience groups (NCA)

As indicated before, this possibility is the most facilitative of achievement. Initially all groups are coincident in the parents and it is only as children start to venture from home that peers are selected, as models. At the early stages a high degree of content congruence would be expected in emotionally stable homes. The oft quoted turbulence of adolescence may be seen then as a subsequent splitting of referents from the individual in terms of content and persons.

Coincidence of normative and audience groups with a separate comparison group (NA/C)

Here a strong case exists for achievement, but the situation is weakened possibly by the separation of the equity, legitimation, role model and stimulus functions of comparison groups so that even given a task prescription and an impetus of some kind, nothing may aid the accomplishment of the task in the technical sense.

Separate normative group and coincidence of comparison and audience groups (N/CA)

Kemper cites this as an "infrequent and unstable possibility" since the divorcement of the audience function from the

normative function leaves the normative group in a very difficult position of providing nothing but negative inducements.

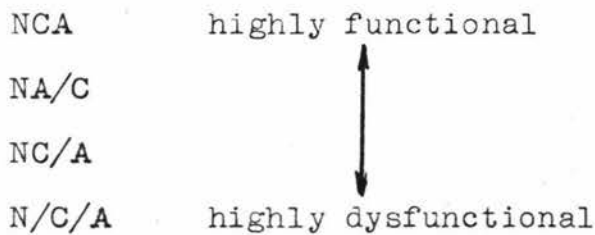
Coincidence of a normative and comparison group with a separate audience group (NC/A)

This also is seen as an unstable reference structure because there are no supportive audience rewards to strengthen the effect of the other referents.

Non coincidence of normative, comparison and audience group (N/A/C)

This is clearly a highly unstable situation in terms of achievement. No referent buttresses the other and the unco-ordination resulting would ensure some kind of anomie or disorganisation for the task. This presentation will serve as the basis for obtaining an index of reference group orientation. Kemper's categories are used and are operationalised here in a hierarchy. Given the argument of the relationship between reference group structure, socialisation and achievement it follows that the coincidence of normative, comparative and audience groups (N/C/A) for school achievement would be the most functional. Coincidence of normative and audience reference groups, but with a separate comparative group (NA/C) represents a weakened, but not impossible combination and is here placed as the next most functional structure. The norms are clear and an audience exists for their support and reward; what is lacking is the comparison function mediated by equity, legitimation, role model availability and some stimulus for action. A weaker combination still comprises the coincidence of normative and comparison groups with a separate audience group (NC/A). Here the norms for achievement are clear and comparative functions are available, but an audience exists that rewards other things. Motivation may be seen to be very low in such a case. The divorcement of the normative group from comparative and audience groups

(N/CA) allows no motivation and no means or perspective for the normative task and represents a still lower referent mode. Finally, complete divorcement of all three modes from each other represents a non coherent situation for task achievement; in extreme cases it may represent some type of anomie for the pupil. The conceptualisation for pupil reference group orientation to achievement may then be stratified as follows:



A Synthesis in Education

Cooley (1902) long ago introduced the idea of what is now called the primary group. For him it was characterized by (1) face-to-face association; (2) the unspecified nature of the association; (3) relative permanence; (4) a small number of persons and (5) the relative intimacy of participants. Such a group, from birth onwards was integral to forming the social nature and ideals of the individual, where he gets his earliest and most basic experiences of social unity. It is here that the social self, the reflexive self or looking-glass self is first formed. Thus, one's perspective, one's value attitudes and beliefs became the facts of one's social life: in combination with others they formed the facts of society. For James and Cooley ideas and beliefs were the 'facts' for sociology, and sociological methodology was best employed in isolating such phenomena so that the pattern of imaginations revealed the nature of society.

For Thomas (1927) the purpose of sociology was contained in the tracing of the dependence of individuals on social life and

culture and of the dependence of social life and culture on the individual. The subject matter for him was again the attitudes and values common to actors; the processes of consensus determined by objective conditions, the pre-existing world views and conceptions of social structure and finally, and crucially, the definitions of the situation by the actors. He suggested that preliminary to any self determined act of behaviour there is always a definition of the situation; gradually a whole life policy and personality of the individual himself follow from a series of such definitions.

The contention of this thesis is that all the trends and correlations revealed between macrosociological variables or summary categories as precised in Chapter One can be seen as constraining the primary group situation of firstly the home in its social setting, the peer group and the school. This constraint effects and shapes to a certain extent individual definitions of the situation. The social imagination, communicated to the actor by significant others becomes impinged upon the actors mind and frames of reference so that part of his definition is reflective of these broader dimensions, usually expressed as SES and ethnic origin. The wider social dimensions would mean nothing without specific consequences and mediations, just as specific internal imaginations would mean nothing without a social backdrop, a generalised other. Reference group influences intervene from the beginning in the same way. There is always rivalry between the spontaneous definitions of the situation made by a member of an organised society and the definitions which society has provided for him. The choice and selection of dominant influences are mediated by the referents adopted and internal to the actor. They are created in part by the early definitions of the situation

and in part shape subsequent definitions: they intervene between the individual imagination and the social structure, expressing and interrelating both to each other. If the symbolic interactionist - reference group theory premise concerning the centrality of meaning, imagination and subjective interpretation bears any weight, then the interview as a means of 'sounding' or tapping for expressions of the pattern of definitions and referents is justified. Thomas (1918) and Znaniecki (1918) employed exhaustive case studies, detailed personal narratives and extensive documentation to operationalise their research. Although there is no guaranteed method of approaching 'in the head' type information, however, it is suggested here that the choice, location and perceived influence of certain significant others provide a clue to the internal dialogue between the "I" and the "Me" that reflect in a person's stated definition of a given situation. This, as argued before, has important consequences for behaviour. Meaning is found in the individual's use of symbols at their most complex state of development. The interview and self report methods justify their existence in that they may in some way record some of the perceived meaning that an individual associates with social objects; in this case school and academic learning. This influences subsequent behaviour in the social situation. Here the establishment of categories emerges partly from the definitions of the situations supplied by pupils and hence represents a subjective approach, and partly from the response of pupils to certain given categories about their referents, representing a more objective approach. The thesis will then be to test for any subjective patterns associated with school grades.

There also exists an important link between intelligence and meaning from the subjective perspective. If a broad notion of intelligence is accepted as relating in some way "to solve the problems of present behaviour in terms of its possible future consequences as implicated on the basis of past experience", (Mead 1955), then memory and foresight relate to intelligence. It might be argued further that, since meaning and mind have their origin in the social act and are made possible by language, intelligence consists of the quality and utilization of meaning and language. If, then, intelligence is bound up intimately with symbol management, strong links exist with the social world the individual derives meaning from, in the form of symbols. It can be suggested therefore that to the extent that a school environment with its own symbolic world differs from the symbolic world of the home, then intelligence is by its situation-content nature not adequately geared, initially at least, to the schools requirements. If mind arises in the social act then many behaviours apart from problem solving ones will be implicated where symbolic worlds differ more markedly. PAT scores and the highly verbal and reading oriented Otis IQ scores predict school grades well, precisely because they tap a set of symbols related to particularly (largely middle class) social groups. All this is well illustrated in the perennial difficulties associated with the quest for culture free tests on the international level.

Role taking enters here in that part of the imagination required of the actor in a given social situation is that he can take the role of the others in the situation and thereby

function adequately, anticipating and responding reasonably accurately. Lack of imagination and role taking in a foreign symbolic world may well affect performance. By the process of predicted and understood communication a community achieves a degree of control over its members in that many norms are 'second nature' as are some problem solving tenents and modes. Dissonance here in terms of social mind and self may be seen to result in low achievement.

"Only in and through the social organization does the "I" possess itself; every manifestation of its own personal existence and life is linked as though by invisible ties with the totality of life around it".

(Cassirer 1951)

Piaget is relevant here too in that he suggests a child's symbolic world is interrelated to his moral perception and his behaviour.

"Society is the sum of social relations, rule of constraint of co-operation ... from outside they arise in the conveyance of ideal norms ... externally experience is under the constraint of duty, internally experience is ordered by the spontaneous pursuit of the good, and autonomous rationality which are the fruits of reciprocity".

(Piaget 1951)

Achievement and behaviour patterns at school can be seen in the light of the aforementioned as a function of the social world the pupil comes from prior to school entry, at least for a little time. The school may come to resolve dissonance in some cases by inculcating previously absent symbolic skills and terms of reference. For the case in point some seven years of schooling in various forms have, by law been experienced prior to the study. The thesis here will be that underachievement at this level at this time will be in significant part

a result of traces of disfunctional symbolic management and reference terms which derive from extraschool influences and linger from preschool effects. The interview then, is designed to reveal some of this subjective and behavioural dissonance or consonance and to predict for differential achievement.

The large and much debated area of motivation and education relate to the issues also. Motives from a symbolic interactionist perspective are seen as modes for restoring equilibrium between the physico-chemical, emotional and social environments. A balance of ones self image in terms of the appraisal of others provides the impetus for motive. These are traced by eliciting the vocabularies of motive peculiar to each actor.

"A motive is a sociological term in a vocabulary which appears to the actor and the observer to be an adequate reason for his conduct; they are acceptable justifications for present, future or past programmes of conduct".

(Mead 1934)

The referent nature of this process then lies in the suggestion that

"No one vocab is accepted by everyone, so the alert individual must use one or other tentatively until he finds the way to integrate his conduct with others to win them as allies of his act".

(Mead 1934)

The interview seeks to trace such vocabularies of motive for actors, to look for patterns and degrees of consensus; the perceived meaning in the structures that emerge from the patterning and the degrees of consensus. Statistical patterning parallel to this for the macrosociological variables of SES, ethnic origin will be examined for correlation with the subjective patterns, in that they are thought here to be mediated and

intervened by them.

Application in an Educational Setting

As mentioned at the outset, fourth formers from a large co-educational secondary school comprised the sample population. One full class from each of the three 'ability' streams in the school were chosen on their high multiracial composition.

The fourth form year relates to a fundamental choice made by all school pupils consciously or not, as to whether to leave school or not when the opportunity first presents itself. In New Zealand this generally occurs in the fourth form year when most children turn fifteen. Curiously this year is usually labelled by teachers as the most turbulent in terms of class discipline and work orientation. Further it is often seen as a 'no-man's land' year, since it comes after the newness and lowliness of the third form and prior to the hard reality of The New Zealand School Certificate. The fourth form lacks a concrete goal apart from the vague notion that grades in this year bear upon class selection in the fifth form. The school as a normative structure carries within it this latent time in a reportedly uncomfortable manner and the pupils as members by constraint for the last time, reportedly behave in ways typical of early and midadolescent energy and experimentation. The issue for some is that they must decide what job to take up since they may now do so. The issue for others is the future at school and how they respond to that fact since it bears upon the possibilities open to them when they do leave.

At such time as this referents and definitions abound and may impinge more concretely than before. Either concrete decisions made about staying or finding a job, or some form

of compliance identification or internalisation continue their outworking as pupils decide, consciously or not, to stay on. It is argued here that many things 'surface' at this possible pivot in pupils lives: the cumulative effects of the wider social setting from which pupils come impinge, the influence of peers, the influence of school all reap expression in terms of some definition of the situation and some locus of referents. The thesis attempts to isolate and describe such definitions and referents, in terms of selected sociological indices and to test for their correlation with achievement. It is based on a reference group index derived from a content analysis of interviews with a sample of fourth formers, as will an analysis of the definition of the situation. The reference group index will be seen in the light of a statistical treatment of (1) Sociological Categories: Socioeconomic status, Ethnic origin (2) School Categories: IQ scores, Class stream, 3rd form grades (3) School Behaviours: Teacher-pupil affect, Pupil-teacher affect, Proposed occupation, Present grades.

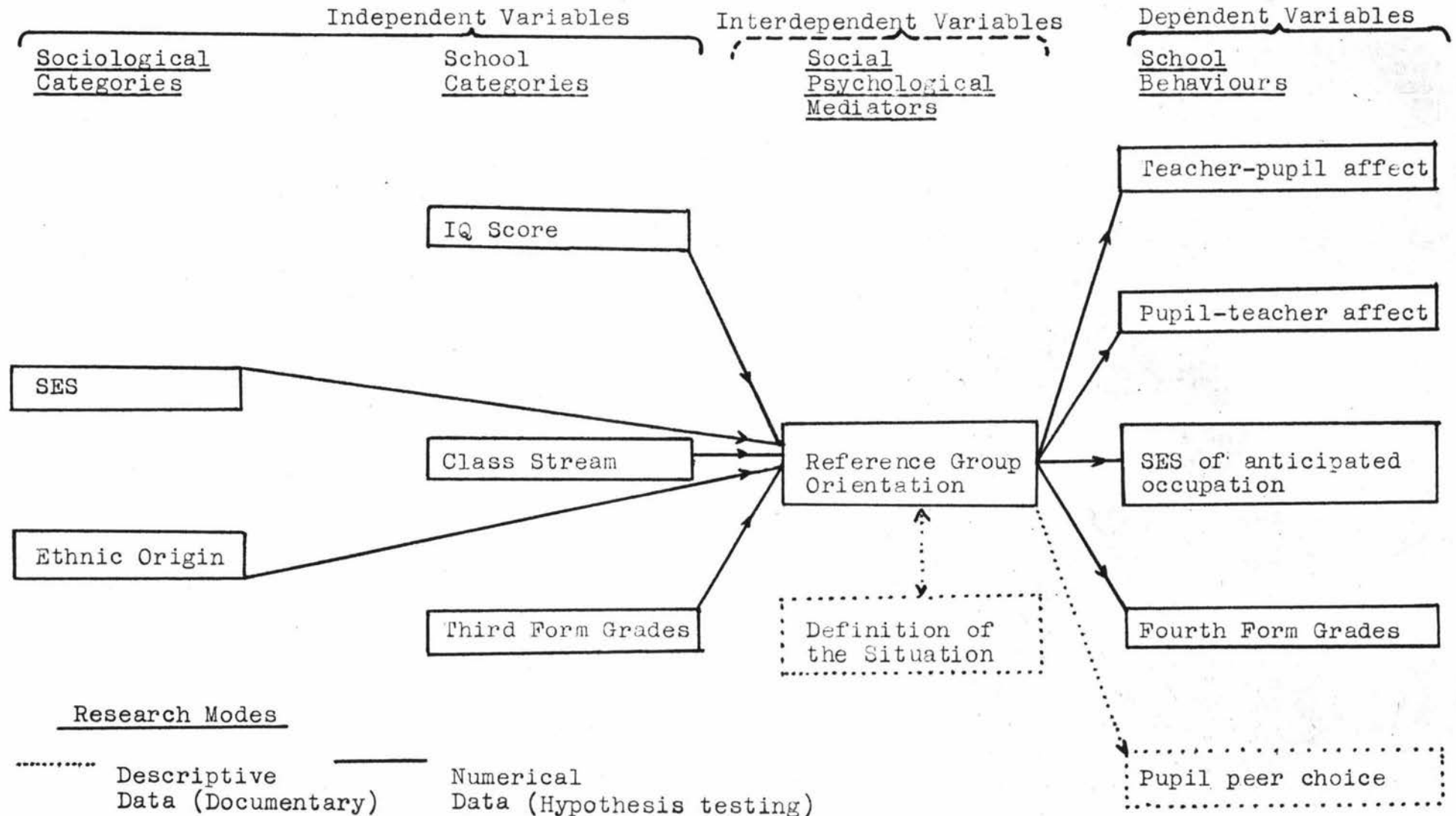
The Theoretical Model

The argument so far has sought to present and explain the role and operation of the social psychological mediator as it interprets wider macrosociological constraints into behaviour at the concrete level especially in terms of achievement. In terms of the educational situation studied here the following model is employed.

Figure 2.2

The Theoretical Model

School Achievement: Societal, Institutional and Interpersonal Influences



The flow of differential sociological and social psychological content from the broad societal categories, through normative school experience resulting in distinctive operation of reference orientations and definitions of the situation. Following the theoretical premise of the preceding argument, such distinctive referents and definitions may be seen to have consequences for school behaviours, especially grades. All the variables included may be seen to be as interrelated in some way. The final passage from social psychological mediation to manifest school behaviour may be expressed as retroactive, in that reference processes and definitions always interpret continuing experience and the relationship may be dynamic.* The thesis will test for all possible interrelationships and regressions hypothesizing for the greatest strength in the relations indicated in the model. A description of the hypothesized interrelationships is outlined in Chapter III.

* The model as presented, is in a static and open condition, and hence these school behaviours are seen only as a function of Reference Group Orientation. However, the model could be modified for a dynamic understanding, following the concept of interrelationship as outlined in Chapter 1 and 2. Further, other variables may be introduced to afford a more pervasive explanation.

CHAPTER III

Hypothesis structure, Data Collection and Treatment

Introduction

In Chapter II the theoretical base for the study was presented, was applied to educational concepts and expressed in a model. Here the model is broken down into its component parts and a series of hypotheses is derived from each segment. The theme throughout is the postulation of patterns of relationships of independent variables with Reference Group Orientation to achievement as it impinges upon the dependent variables of school behaviours and achievement. By such patterns the role of Reference Group Orientation^{*} as a mediator of the independent variables is described.

The first set of hypotheses (Section A) presents independent variable relationships with Reference Group Orientation; the second set (Section B), presents Reference Group Orientation's relationship with the dependent variables and the third set (Section C) presents the interrelationship of independent, mediator and dependent variables, arguing for the central place of Reference Group Orientation.

Hypothesis Structure

Section A

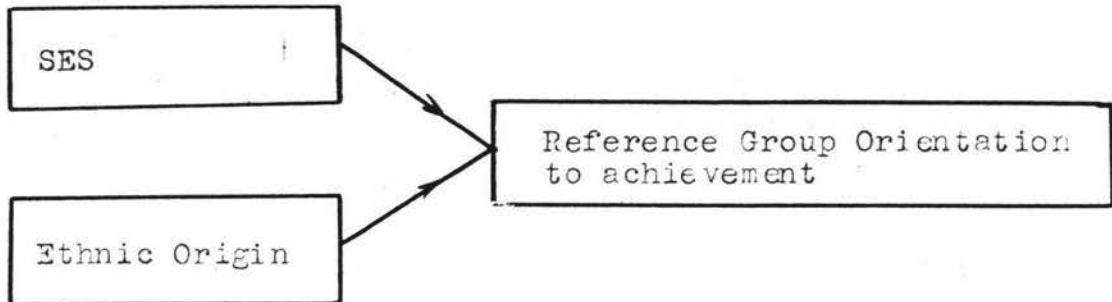
(1) The gross effect of sociological constraints as summarised by the categories of SES and ethnic origin representing as they do differential influences dating from early socialisation, are dealt with first in the model as they are temporally prior to the other independent variables. They are represented in

* As used throughout the term Reference Group Orientation is short for Reference Group Orientation to Achievement.

Fig. 3.1 and are shown as impinging upon Reference Group Orientation to achievement because social isolation has social and psychological consequences for reference group formation and nature.

Figure 3.1

Sociological Influences on Reference Group
Orientation to Achievement



The implications of this part of the model are expressed in hypothetical form below.

Hypothesis I Reference Group Orientation to achievement is a function of SES and Ethnic Origin

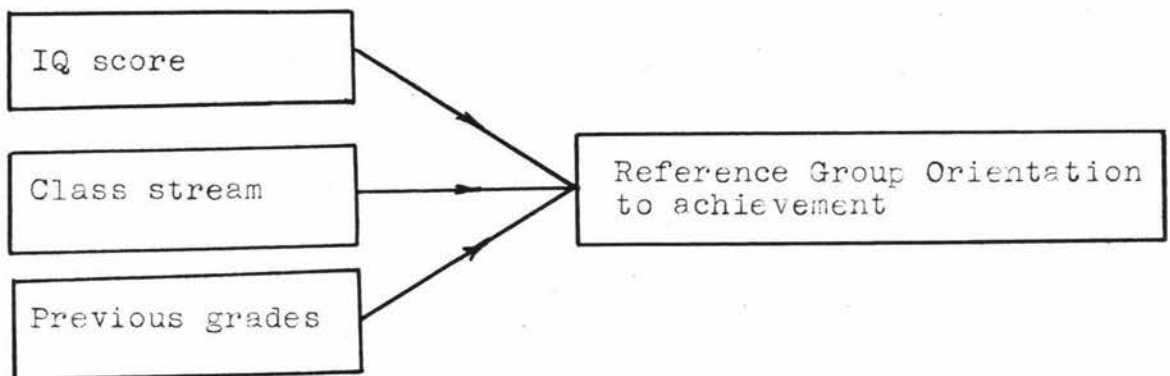
- HI.1 The higher the SES the higher the reference group orientation to achievement.
- HI.2 Pakeha pupils exhibit higher Reference Group Orientation to achievement than do Maori pupils.

(ii) Educational influences are represented by IQ scores, as a measure of institutional definition of ability; class stream, as a measure of concrete institutional judgement; and previous grades, as a measure of past performance. These impinge temporally second upon Reference Group Orientation to

achievement, following a host of other institutional influences from school entry on. Such influences may be seen to effect further differential socialisation and are represented (Fig. 3.2) as shaping and defining Reference Group Orientation to achievement.

Figure 3.2

Educational Influences on Reference Group Orientation
To Achievement



The implications of this part of the model are expressed in hypothetical form below.

Hypothesis II Reference Group Orientation to achievement is a function of IQ scores, class stream and third form grades.

H2.1 The higher the IQ the higher the Reference Group Orientation to achievement.

H2.2 The higher the class stream, the higher the ^{*}Reference Group Orientation to achievement.

H2.3 The higher the third form grades, the higher the Reference Group Orientation to achievement.

* This hypothesis is modified and extended in the presentation of results in Chapter 4. Separate within-stream comparisons are conducted to test for differential effect, and H2.2 is arrived at by inference.

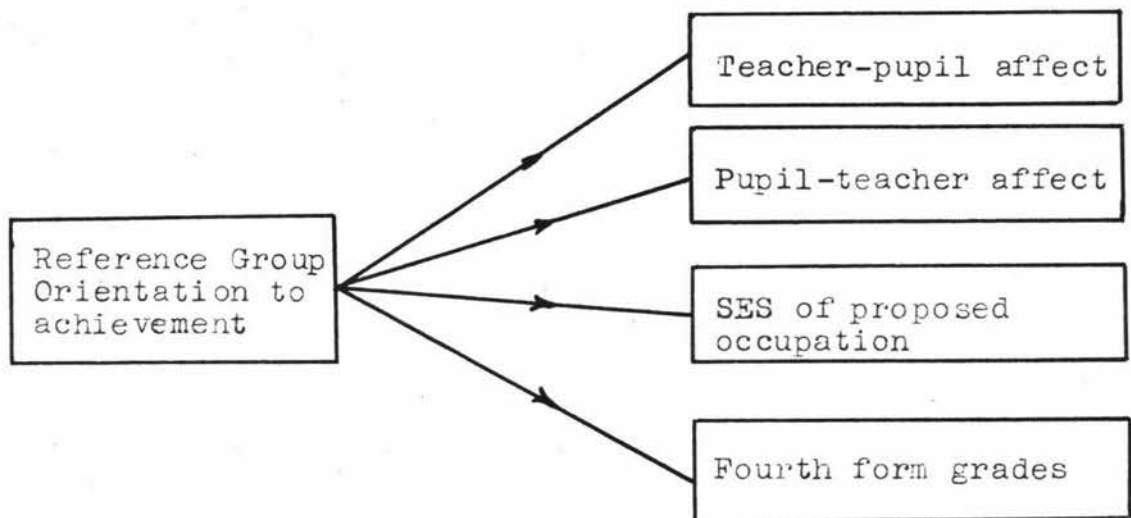
Section B

It is argued that the effect of Reference Group Orientation to achievement may be seen as impinging upon school behaviours and achievement because it mediates differential sociological and educational influences into concrete definitions of the school situation. As shown earlier in Chapter II, Reference Group Orientation represents the influences and perspectives of the actor as he defines his situation, such defining have consequences for concrete behaviour. To some extent Reference Group Orientation guides the interpretation of the situation for the actor; some of the content of which will be idiosyncratic and some of which will be a function of social process. Thus the reference group intervenes and mediates the influence of differential social process. It may thus be expected to represent partially the nature of prior social contingencies and to represent partially a unique situation. The fact that it is to some extent at least a mediator and a representation of social process is hypothesized here as described in Fig. 3.3. School behaviours are represented by teacher-pupil affect and pupil-teacher affect (as measured by an adaptation of Silberman's ^{teacher-pupil} categories). Chapters I and II have shown that sociological differences have been reported as shaping teacher-pupil relationships which have consequences for (1) school behaviour and achievement, (2) SES of proposed occupation as a measure of pupil perception of future goals which have been seen to be a function of sociological and educational constraint, and (3) fourth form grades which represent concrete academic achievement; often shown to be a function of the societal

and psychological processes inferred above. Reference Group Orientation to achievement then, as a mediator of such social and psychological processes, may be seen to impinge differentially upon measures of school behaviour and achievement.

Figure 3.3

Reference Group Orientation to Achievement and
School Behaviour



The implications of this part of the model are expressed in hypothetical form below.

Hypothesis 3 Teacher-pupil affect, pupil-teacher affect, SES of proposed occupation and fourth form grades are a function of Reference Group Orientation to achievement.

H3.1 The higher the Reference Group Orientation to achievement, the higher the teacher-pupil affect.

H3.2 The higher the Reference Group Orientation to achievement, the higher the pupil-teacher affect.

- H3.3 The higher the Reference Group Orientation to achievement, the higher the SES of proposed occupation.
- H3.4 The higher the Reference Group Orientation to achievement, the higher the fourth form grades.

The possibility of the sociological and educational variables impinging upon the school behaviours independently of Reference Group Orientations to achievement and their own interrelationship was examined in Appendix

and informed the discussion of results. The possibility of reference group impinging upon the school behaviours independently of the sociological and educational influences is catered for in the following section of hypotheses.

Section C

The tension between Reference Group Orientation to achievement's mediatory role and its intervening role is examined here. As argued before, Reference Group Orientation's function is at least as a partial interpreter of sociological and educational processes. In Figs. 3.4 - 3.7 the mutual interrelationships of the independent variables with Reference Group Orientation to achievement are expressed in terms of each school behaviour. A Venn diagram^{*} is employed to convey the cumulation of the argument. Given the hypothesized nature of each variable, they are expressed as possible, rather than exact, areas within the universe of each behaviour. The temporal order of the independent variables is preserved, moving from the early sociological influences, to educational influences to their mediation in Reference Group Orientation as an expression of aspects of both. The diagram further postulates

* This practice is created for its heuristic value, as an alternate mode of research presentation so far untried.

that the interrelationship of independent variables is temporal and cumulative.

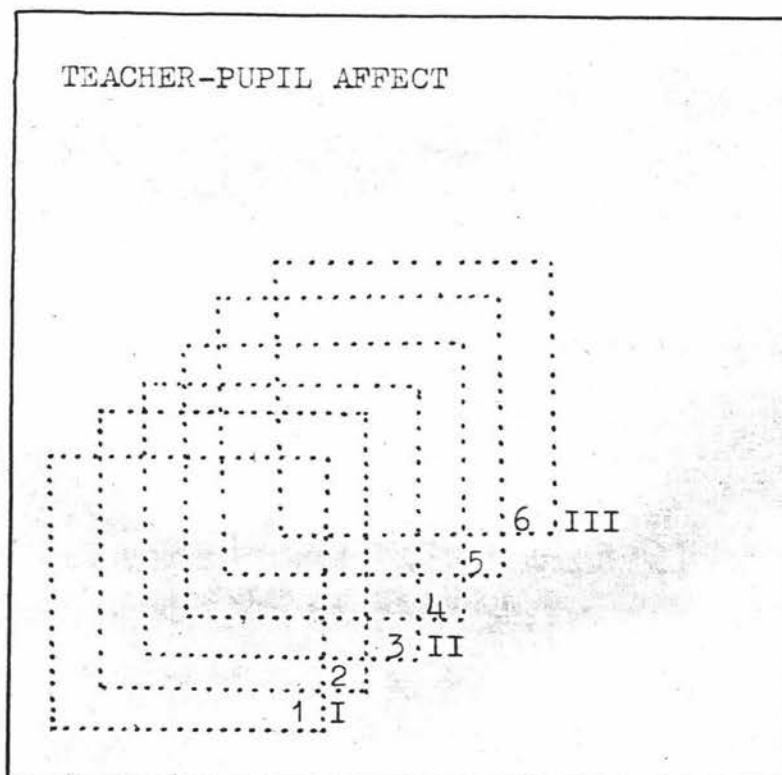
The key to Figs. 3.4 - 3.7 may be understood as follows.

KEY

I	=	Sociological variables	1	=	Ethnic Origin
			2	=	SES
II	=	Educational variables	3	=	IQ Score
			4	=	Class stream
			5	=	Third Form
III	=	Social Psychological Mediation	6	=	Reference Group Orientation grades

Figure 3.4

Sociological, Educational and Reference Group Influences on Teacher-Pupil Affect



Desired it seems
a best change
to repeat the
same figure
how then
much completely
the depicted variable
- the title

Figure 3.5

Sociological, Educational and Reference Group
Influences on Pupil-Teacher Affect

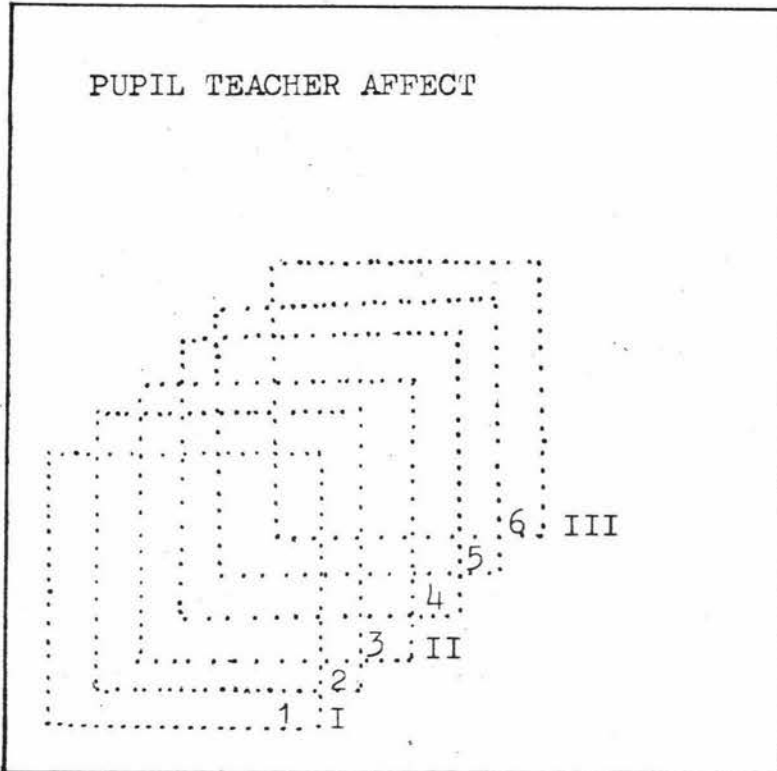


Figure 3.6

Sociological, Educational and Reference Group
Influences on SES of Proposed Occupation

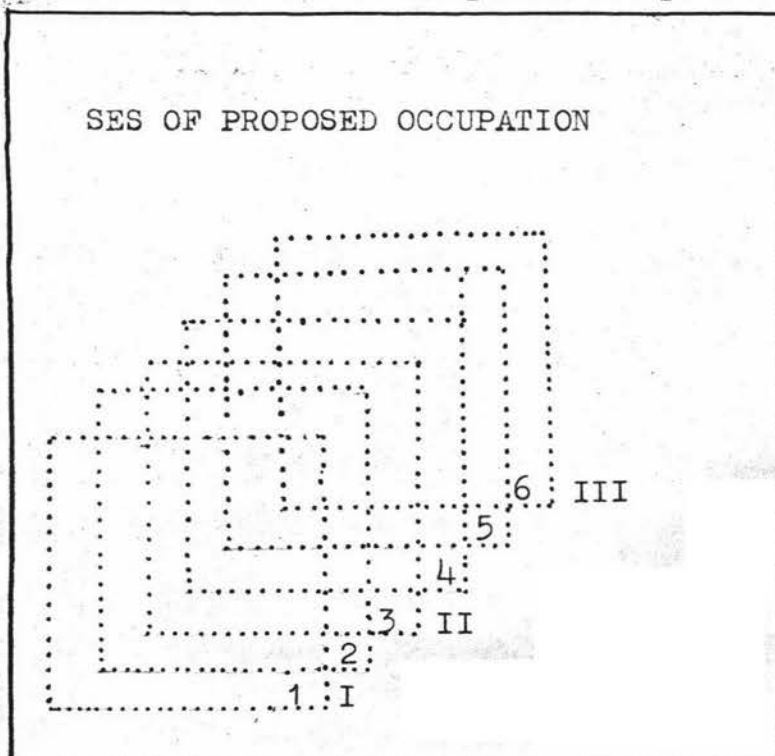
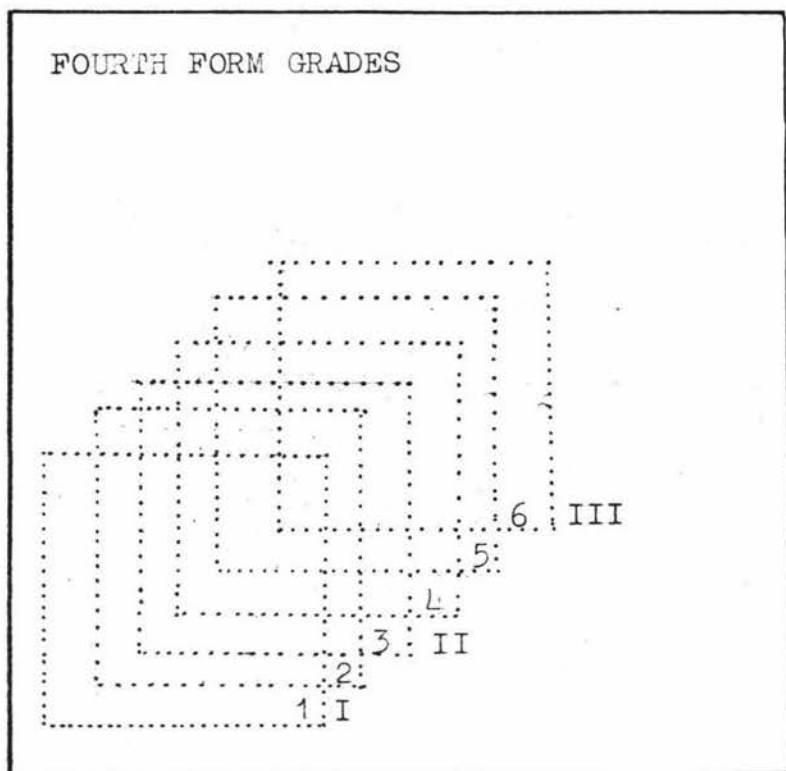


Figure 3.7

Sociological, Educational and Reference Group
Influences on Fourth Form Grades



The implications of the models in Figures 3.4 - 3.7
are expressed in hypothetical form below.

Hypothesis 4 Teacher-pupil affect, pupil-teacher affect, SES of
proposed occupation and fourth form grades are a
function of the cumulative effect of ethnic origin,
SES, IQ scores, class stream, third form grades
and Reference Group Orientation to achievement.

H4.1 The higher the teacher-pupil affect, the
higher the SES, IQ score, class stream third
form grades, and Reference Group Orientation
to achievement cumulatively more for Pakeha
than Maori.*

* The dichotomous variable, ethnic origin, cannot be easily
accommodated by this form of hypothesis presentation. The im-
plication of the presentation here is that when the data are
differentiated according to ethnic origin, Pakeha ratings in the
other variables will tend to be higher than Maori ratings.

- H4.2 The higher the pupil-teacher affect, the higher the IQ score, class stream, third form grades and Reference Group Orientation to achievement cumulatively more for Pakeha than Maori.
- H4.3 The higher the SES of proposed occupation the SES, IQ score, class stream third form grades and Reference Group Orientation to achievement cumulatively more for Pakeha than Maori.
- H4.4 The higher the fourth form grades, the higher the _____, SES, IQ scores, class stream, third form grades and Reference Group Orientation to achievement cumulatively more for Pakeha than Maori.*

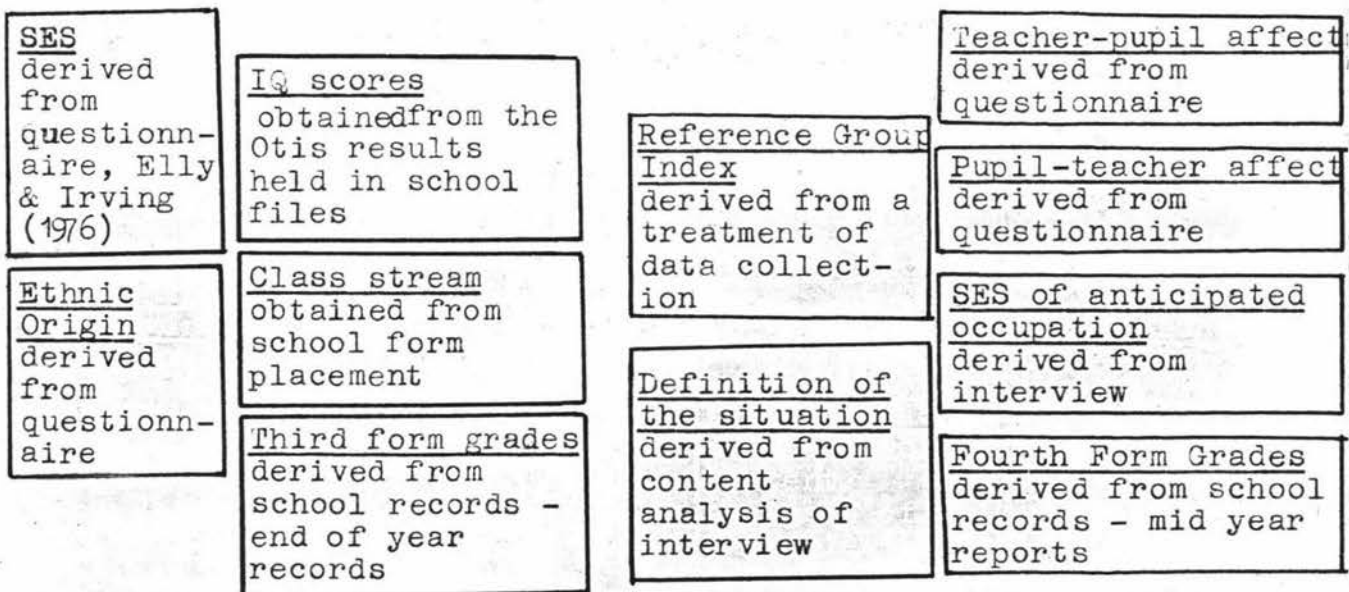
Research and Operationalisation Design

(i) Data Collection Methods

The variables and their interrelationship have been expressed in the model in Chapters II and III. Here the model (Fig. 3.8) is presented again to outline the origin of the indices that the research utilised.

Figure 3.8

Data Origin



* The Class Stream variable in H4.1 4.4 is dealt with in Chapter 4 in the same way as for H2.2; streams being controlled for intervariable relationship.

(ii) The Population

The population, comprised three fourth forms from each of the three streams in one coeducational high school. These particular classes were chosen for their higher numbers of non-European pupils, which facilitated cross-ethnic analysis. All members of the three forms were included as were the teachers concerned for the four core subjects, English, Maths, Science and Social Studies. Teachers were included to afford a measure of the teacher-pupil affect variable. The numbers in each form were as follows - A Stream, 32; B Stream, 26; C Stream, 26. The numbers are small partly because the thesis is essentially a pilot study. The numbers are also small for the logistical reason that each interview takes approximately half an hour, and numbers larger than three classes would have been impossible to deal with in the time available. The population size does inhibit the statistical interpretation to some extent, and given the non-random nature of selection, inferences cannot be drawn beyond the population studied. However, relations within the population that explain some of the association between the variables present may be detected.

(iii) The Research Instruments

The Interview

The interview (see Appendix B) was constructed consistently with reference group and symbolic interaction conceptualisations; the former from an interpretation and operationalisation of Kemper's (1968) concepts and the latter from the operationalisation of a definition of the situation.

The interview was conducted in a private room and interviewees were assured of its confidential nature.*

The Teacher-Pupil Questionnaire

This questionnaire (see Appendix B) was administered during the interview to ensure that its intentions were understood. It was derived from an adaptation of Silberman's (1968) categories of teacher-pupil affect. The questions are identical to Silberman's; the difference being that they were applied to every pupil.

The Pupil-Teacher Questionnaire

This questionnaire (see Appendix B) was administered during the interview with pupils to ensure that its intentions were understood. The affect categories were identical to the teacher-pupil affect categories except that respect was substituted for concern. This was done to obtain a reciprocal pupil measure for teacher concern.

The Sociometric Questionnaire

This questionnaire (see Appendix B) was administered in the classroom situation. The questionnaire was introduced with the words "Imagine that you are coming into this room for the first time and you are able to sit where you like. Who would you most like to be with. Who would you like to be with second most, etc".

(iv) Treatment and Analysis of Data

(a) Reference Group Data

The results of the interview are enumerated in the

* Given the essentially descriptive nature of the interview and the pilot status of the study, a reliability measure

following way for comparative and audience answers.

Yes = 1, No = 2. The answers to the normative index are not introduced into the treatment at this stage. This is because the normative reference group is a 'given' for school pupils, in that norms and sanctions exist and impinge irrespective. Comparative and audience groups, however, are not automatically existent or operant for achievement, and are here analysed in terms of their content and power with regard to school norms and sanctions for achievement.

The resultant numbers from the comparative and audience answers are structured in terms of hierarchy derived in Chapter II. Sets of numbers for each pupil are interpreted into categories within the hierarchy indicating that pupils Reference Group Orientation to achievement. Categories are derived as follows.

<u>Normative:</u>	Given	
<u>Comparative:</u>	Equity	1/2
	Legitimater	1/2
	Role model (parents)	1/2
	Role model (friends)	1/2
	Accommodator	1/2
<u>Audience:</u>	Parents	1/2
	Friends	1/2

By recording the enumerations of answers for each pupil, a number set is obtained. Inferences from the number sets are made to yield a particular Reference Group Orientation to achievement.

Where categories are all recorded as (1) it is inferred that comparative and audience reference groups are completely functional for achievement and therefore reference continuity and coincidence are effective with the normative group.

eg: N C 11111 A 11 (NCA)

Where categories are recorded as containing at least one but not all '2s', a partial discontinuity and non-coincidence of referents for achievement is inferred.

eg: N C 11111 A 12 (NC:A)

eg: N C 11211 A 11 (NA:C)

Where both categories are recorded as partially affected, the following enumeration and orientation is inferred,

eg: N C 11221 A 12 (N:C:A)

Where one category contains only '2s' a complete discontinuity and non-coincidence of that category with the normative group are inferred.

eg: N C 11111 A 22 (NC/A)

eg: N C 22222 A 11 (NA/C)

Where both categories are so affected the following enumeration and orientation is inferred.

eg: N C 22222 A 22 (N/C/A)

Finally, combinations of partial and complete category discontinuity are assigned as follows.

eg: N C 22112 A 22 (N:C/A)

eg: N C 22222 A 21 (N:A/C)

The final hierarchy of highly functional to highly dysfunctional Reference Group Orientations to achievement is then stratified following the hierarchy outlined in page 49.

Table 3.1

A Reference Group Hierarchy

<u>Index</u>	<u>Reference Group Orientation to Achievement</u>	
1	NCA	Highly functional
2	NA:C	
3	NC:A	
4	N:A:C	
5	NA/C	
6	NC/A	
7	N:A/C	
8	N:C/A	
9	N/C/A	Highly dysfunctional

Thus the social psychological index, describing reference group structure and orientation to achievement is obtained as an ordinal measure.

(b) The teacher-pupil, pupil-teacher questionnaires

The results for each pupil and teacher as A, B, C or D are enumerated as 1, 2, 3 or 4 respectively and added together. Therefore a high total indicates low teacher-pupil affect and a low score, high affect for the subjects and teachers overall, as indicated in Figure 3.9.

Table 3.2

Teacher Affect and Pupil Affect Indices

<u>Index</u>	<u>Pupil perception of affect</u>	<u>Teacher perception of affect</u>	
4	attachment only	attachment only	high affect
5			
6	combinations	combinations	
7			
8	of	of	
9			
10	attachment respect	attachment concern	
11			
12	indifference and	indifference and	
13			
14	rejection	rejection	
15			
16	rejection only	rejection only	low affect

The Sociometric Questionnaire

The data were subjected to Gronlund's standard sociometric treatment controlling for (a) sociometric status, and (b) Reference Group Orientation (see Appendix D). Under each control criteria the class rolls for each class were mapped against themselves and first, second and third choices were indicate by, ■ for first choice, ▲ for second choice, △ for third choice and X for rejection.

Descriptive data from questionnaires and school files

Socioeconomic status:

Father's

occupation was converted into the Elley and Irving (1976) socioeconomic scale. An ordinal index of 1 to 7 was possible with 1 indicating the highest status occupation categories and 7 the lowest. The range from the data

* The adoption of the male orientated Elley and Irving scale, with a mixed sample was thought to be justified in that it was the only available cross national comparison test of SES available within New Zealand at the time of the research.

was collapsed into three categories deriving from the variation in the data.

Ethnic Origin: The results were classified according to European and non-European categories respectively.

IQ Scores: Were obtained as the coefficient from school files.

Class stream: Was labelled as A, B, C indicating high to low stream respectively.

Third form grades: As recorded in the school files for the end of the previous year, the grades ranged from A+ to E-. These were enumerated from 1 to 14 respectively.

Fourth form grades: Were analysed as described in the third form case.

Socioeconomic status of occupation aspired to: Elly and Irving scales again applied.

Statistical treatment: The resulting converted data afforded statistical treatment as numbers. The variables were subjected to a cross-tabulation analysis, and breakdown analysis to discern the nature of the individual relationships that Hypotheses 1 and 2 sought to express. Finally the data was analysed by multiple regression analysis to test Hypotheses 3 for collective interrelation and relative and independent variable strength. Chapter IV presents the results.

CHAPTER IV

Results

Introduction

In Chapter III the hypothesized relations deriving from the model were presented. Here the results are tabled for each operationalised hypotheses in Section A and B in terms of Cross-tabulation indices expressed by Kendall's Tau B and C correlations for unstreamed results and in terms of Breakdown Analyses expressed by the t test and the f test for within-stream results. The operationalised hypotheses in Section C are tabled in terms of multiple regression indices expressed as Venn diagrams derived from the simple regression correlations, regression squares and the multiple regression numbers.

The use of Cross-tabulation indices was necessitated by the predominance of ordinal data and was expressed by Kendall's Tau C where the small cell sizes prevented the use of the Chi Square and because some of the variables compared did not contain mutually symmetrical units. (Kendall's Tau B was used in symmetrical cases). The use of Breakdown Analysis for within-stream comparisons, despite the not truly parametric nature of the sample, was thought to be valid since the standard deviations for the variables involved were moderately consistent with each other. The use of step-wise Multiple Regression Analysis however, was based upon Pearson Product-Moment correlations and it was noted that comparisons of such correlations with Kendall's Tau C correlations was not strictly possible. This was due to the consistently higher correlations automatically yielded by Pearson Product-Moment correlations. However, mutually high significance levels may be validly compared.

The hypothesis testing is preceded by a general description of the frequency distribution for each of the variables

Variable Frequency Distribution

The frequencies of the variables involved are presented in table form (Tables 4.1 - 4.9) illustrating their raw categories, raw scores, percentage scores and research coding categories. Table 4.1 describes the relative frequencies for SES of the sample population.

Table 4.1

Frequencies for SES of Pupil Home

Raw Category	Raw N	%	Category Adaptation
(high) 1	-	-	-
2	4	5.0	1
3	20	25.0	
4	31	38.95	2
5	20	25.0	
(low) 6	5	6.25	3
Total	80	100.0	

A relatively normal distribution of SES categories was found although no pupils fell into the highest category.

Table 4.2 describes the relative frequencies for the Ethnic Origin of the sample population.

Table 4.2

Frequencies for Ethnic Origin

Raw Category	Raw N	%	Category Adaptation
Pakeha	1 63	75.0	1
Maori	2 11	13.1	
Indian	3 1	1.2	-
Part-Maori	4 8	9.5	2
Polynesian	5 1	1.2	-
Total	84	100.0	

The sample distribution of Ethnic Origin revealed a low incidence of non-European pupils of which only Maori and part Maori were considered, being grouped together.

Table 4.3 describes relative frequencies for the IQ Scores of the sample population.

Table 4.3

Frequencies for IQ Scores			
Raw Category	Raw N	%	Category Adaptation
71.0 - 76.0	12	15.8	1 (71-87)
77.0 - 78.0	9	11.8	
83.0 - 90.0	7	9.1	2 (88-108)
91.0 - 100.0	6	7.9	
101.0 - 105.0	10	13.2	
106.0 - 111.0	13	17.1	3 (109-132)
113.0 - 117.0	7	9.2	
118.0 - 126.0	7	9.2	
127.0 - 132.0	5	6.7	
Total	76	100.0	Mean 98.97 Std. Dev. 17.87

The sample distribution of IQ Scores revealed a bimodal distribution.

This was due to scores from the C Stream class whose entry criteria was strictly based on a low score within a narrow range compared to the A and B Stream classes.

Table 4.4 describes the relative frequencies for Third Form Grades by subject of the sample population.

Table 4.4

Frequencies for Third Form Grades by Subject

Raw Cat	Eng Raw N	%	Soc Stud Raw N	%	Math Raw N	%	Sci Raw N	%	Raw Tot	%	Cat Adap
(A+) 1					2	2.5			2	0.62	
(A) 2	5	6.2	6	7.5	3	3.7	4	4.9	18	65.59	
(A-) 3									0		1
(B+) 4	5	6.2	3	3.7	5	6.3	8	9.9	21	6.52	
(B) 5	22	27.2	16	20.0	22	27.5	18	22.2	78	24.22	
(B-) 6			2	2.5			8	9.9	10	3.10	
(C+) 7	9	11.1	7	8.8	7	8.8	10	12.3	33	10.24	2
(C) 8	26	32.1	27	33.8	28	35.0	22	27.2	102		1
(C-) 9	4	4.9	7	8.8	7	8.8	2	2.5	20	6.21	
(D+) 10	1	1.2								0.31	
(D) 11	8	9.9	9	11.3	6	7.5	8	9.9	31	9.62	
(D-) 12											3
(E+) 13											
(E) 14	1	1.2	3	3.7			1	1.2	5	1.59	
Total	81	100.0	80	100.0	80	100.0	81	100.0	322	100.00	

Frequencies for Third Form Grades by Subject (cntd)

Raw Cat	Eng Raw N	%	Soc Stud Raw N	%	Math Raw N	%	Sci Raw N	%	Raw Tot	%	Cat Adap
Mean	6.901		7.313		6.750		6.716		33.1		
Std.Dev.	2.463		2.712		2.325		2.378				

Although the full range of grades (A+ - E) was open to teachers it seems clear that the grades of B- and D+, of the marks nearer the mean, appear to have been generally avoided.

This explains the two major discrepancies in this bimodal distribution. Standard deviations from individual subjects approximate each other well, as do the means, indicating no severe inter-subject effect.

Table 4.5 describes the frequencies for teachers' perception of their feelings towards pupils in their respective classes.

Table 4.5

Frequencies for Teacher-Pupil Affect by Subject

Raw Cat		Eng Raw N	%	Soc Stud Raw N	%	Math Raw N	%	Sci Raw N	%	Raw Tot	%
Attachment	1	40	47.6	32	55.2	49	59.0	27	32.9	148	48.20
Concern	2	29	34.5	23	39.7	17	20.5	22	26.8	91	29.90
Indifference	3	8	9.5	2	3.4	9	10.8	19	23.2	38	12.37
Rejection	4	7	8.3	1	1.7	8	9.6	14	17.1	30	9.77
Total		84	100.0	58	100.0	83	100.0	82	100.0	307	100.00

The totals for each affect category decrease from attachment to rejection consistently, teachers predominantly choosing the first two categories of attachment and concern. No gross hierarchical differences appear between subjects

Table 4.6 describes the frequencies for pupils' perception of their feelings towards teachers in their respective classes.

* Where populations fluctuate, the results are due to data being unavailable or unclassifiable.

Table 4.6

Frequencies for Pupil-Teacher Affect by Subject

Raw Cat		Eng Raw N	%	Soc Stud Raw N	%	Math Raw N	%	Sci Raw N	%	Raw Tot	%
Attachment	1	42	50.0	14	24.1	8	9.5	20	23.8	84	27.0
Respect	2	24	28.6	36	62.1	38	45.2	43	51.2	141	45.5
Indifference	3	13	15.5	8	13.8	23	27.4	18	21.4	62	20.0
Rejection	4	5	5.9	0	0	15	17.9	3	3.6	23	7.5
Total		84	100.0	58	100.0	84	100.0	84	100.0	310	100.0

The distribution here differs significantly from the Teacher-pupil results. Generally the highest category is respect followed by Attachment, Indifference and Rejection, which is actually absent for three-quarters of the sample. Table 4.7 describes the frequencies for Fourth Form Grades by subject.

Table 4.7

Frequencies for Fourth Form Grades by Subject

Raw Cat		Eng Raw N	%	Soc Stud Raw N	%	Math Raw N	%	Sci Raw N	%	Raw Tot	%	Cat Adap
(A+) 1												
(A) 2	3	3.6		3	3.7	2	2.4	6	7.2	14	4.53	
(A-) 3				1	1.2					1	0.32	
(B+) 4						2	2.4			2	0.65	1
(B) 5	15	18.1		13	16.0	18	21.7	15	18.1	61	20.06	
(B-) 6				3	3.7					3	0.98	
(C+) 7	9	10.8		9	11.1	8	9.6	4	4.8	30	9.87	2
(C) 8	36	43.4		41	50.6	25	30.1	35	42.2	137	45.01	
(C-) 9	5	6.0		2	2.5	9	10.8	6	7.2	22	7.23	
(D+) 10										48	15.79	
(D) 11	13	15.7		6	7.4	18	21.7	11	13.3	1	0.32	3
(D-) 12								1	1.2	10	3.29	
(E+) 13												
(E) 14	2	2.4		2	2.5	1	1.2	5	6.0			
Total	83	100.0		81	100.0	83	100.0	83	100.0	329	100.0	
Mean	7.807			7.531		7.843		7.855		29.90		
Std.Dev.	2.324			2.319		2.417		2.825				

A strong predominance of Grade C existed within the somewhat erratic distribution of scores, probably due to the 'mid-year'

nature of the grades and the subjective marking tendency among the fourth form teachers. However a very crude, slightly positively skewed normal distribution is discernible.

Table 4.8 describes the frequency distribution of the SES of proposed occupation for the pupil sample.

Table 4.8

SES of Proposed Occupation

Category	Raw N	%	Category Adaptation
(high) 1	7	10.3	1
2	10	14.7	
3	14	20.5	
4	28	41.0	2
5	8	11.7	
(low) 6	1	1.7	3
Total	68	100.0	

A negatively skewed normal distribution was revealed, differing from the SES of Pupil Home in that it included scores for the highest category. Most of the scores fell within the top four categories dropping away sharply for categories 5 and 6.

Table 4.9 describes the frequencies for Reference Group Orientation to Achievement Indices.

Table 4.9

Frequencies for Reference Group Orientation to Achievement Index

Category	Raw N	%
(high) 1	19	22.9
2	19	22.9
3	13	15.7
4	20	24.1
5	1	1.2
6	3	3.6
(low) 7	8	9.6
Total	83	100.0

The distribution of scores formed a very crude hierarchy, dropping away sharply after category 4 and increasingly slightly.

for the most dysfunctional categories. Most of the scores occurred within the four highest categories.

Variable comparisons are now presented in the light of all the aforementioned frequency distributions.

Hypothesis Results

Section A Reference Group Orientation and the Independent Variables.

Hypothesis 1; Reference Group Orientation to achievement is a function of SES and Ethnic Origin.

H1.1 Pakeha pupils exhibit higher Reference Group Orientation to achievement than do Maori pupils.

The relationship between ethnic origin and Reference Group Orientation to achievement was examined by cross-tabulation in terms of percentages and raw scores, as described in Table 4.10

Table 4.10

Reference Group Orientation to Achievement
with Ethnic Origin

Ethnic Origin	Reference Group Orientation			Row Total %
	1-2	3-4	5-7	
1	50.0% (31)	38.7% (24)	11.3% (7)	100
2	27.3% (3)	36.4% (4)	36.4% (4)	100
N 73*		Probability Level 0.01		
Kendalls Tau C 0.18		p $\leq$ 0.01		

A significant association at the 0.01 Level was found between the variables, although the Tau correlation was low (0.18) and the N as throughout the study, was small (N 73). With these provisos then, H1.1 is confirmed indicating a mild strength of association for Reference Group Orientation as a function of Ethnic Origin.

H1.2 The higher the SES the higher the Reference Group Orientation to achievement.

* Where totals differ from frequency tables data has been unavailable for missing cases with respect to some categories.

The relationship between SES and Reference Group Orientation to Achievement was examined by cross-tabulation as described in Table 4.11

Table 4.11

Reference Group Orientation to Achievement
with SES of Pupil Home

	Reference Group Orientation			
SES	1-2	3-4	5-7	Row Total%
1	54.2%(13)	33.4%(8)	12.5%(3)	100
2	53.3%(16)	36.6%(11)	10.0%(3)	100
3	32.0%(8)	48.0%(12)	20.0%(5)	100
N 79		Probability Level 0.04		
Kendalls Tau B 0.11		p < 0.05		

A moderately significant association at the 0.05 Level was found between the variables, although again, the Tau correlation was low (0.11) and the N small (79). On these terms, however, H1.2 is confirmed with a mild association for Reference Group Orientation as a function of SES.

Hypotheses 2: Reference Group Orientation to achievement is a function of IQ scores, class stream and third form grades.

H2.1 The higher the IQ the higher the Reference Group Orientation to achievement.

The relationship between IQ and Reference Group Orientation to Achievement was examined by cross-tabulation as described in Table 4.12

Table 4.12

Reference Group Orientation to Achievement
with IQ Scores

	Reference Group Orientation			
IQ	(high)		(low)	Row Total%
	1-2	3-4	5-7	
1 (low)	28.0% (7)	48.0% (12)	24.0% (6)	100
2	64.0% (16)	28.0% (7)	8.0% (2)	100
3 (high)	44.0% (11)	48.0% (13)	8.0% (2)	100
N 76				
Probability Level 0.04				
Kendalls Tau C -0.12				
p < 0.05				

A moderately significant association at the 0.05 Level was found between the variables with a low Tau correlation of -0.13. The negative Tau was due to the inverted hierarchy of the SES Index relative to the Reference Group Orientation Index, and the low N (75) again constrained inference to a certain extent. However H2.1 is confirmed with a mild association for Reference Group Orientation as a function of IQ.

H2.2 The higher the class stream, the higher the Reference Group Orientation to achievement

The relationship of Class stream to Reference Group Orientation to achievement was determined by holding Reference Group Orientation within streams against all other Independent variables to test for within-stream differences. IQ scores were not included in the test since a high correlation is inherent in form-stream placement. The remaining independent variable of Third Form Grades was not included either, in that inter-stream marking standards did not exist and purely subjective norms governed teacher judgement between streams, averaging

themselves around means peculiar to each class and stream.

The relationship between stream - specific Reference Group Orientations and SES and Ethnic Origin are investigated in Tables 4.13 - 4.19.* Means and N scores were derived from a Breakdown Analysis of the variables involved and a t test applied to their means. Table 4.13 describes the relationship between Reference Group Orientation and SES for Stream A (the highest stream).

Table 4.13

Stream A: Reference Group Orientation to Achievement and
SES of Pupil Home

	Reference Group Orientation		
SES	Mean	Standard Deviation	N
1	3.18	2.10	16
2	3.83	1.46	12
3	2.75	1.50	4
N 32		Probability Level	
F.05		p > 0.10	

No significant relationship was found between the variables ($p < 0.10$). However this may be due to the small N (32) here, compared to the larger N for comparisons irrespective of stream. But given the above information H2.2 must be rejected. The Reference Group Orientation indices are not a function of SES for Stream A pupils.

The relationship between Reference Group Orientation and Ethnic Origin is described by Breakdown Analysis and t Test in Table 4.14, for Stream A.

* Given the small sample sizes for within stream comparisons it is important to interpret the results as a check, primarily, although where significant results appear their emergence cannot be ignored statistically.

Table 4.14

Stream A: Reference Group Orientation to Achievement with
Ethnic Origin

	Reference Group Orientation		
Ethnic Origin	Mean	Standard Deviation	N
1	2.80	1.83	26
2	3.25	0.95	4
N 30	Probability Level		
t 0.047	p > 0.10		

The very low t correlation (0.047) at an insufficient probability level (p 0.10) applies again here as for Table 4.13. The caution mentioned concerning the small N (30) again applies. H2.2 must be rejected here: Reference Group Orientation indices are not a function of Ethnic Origin for Stream A pupils. The trend so far suggests that Reference Group Orientation to Achievement and its relationship to the independent variables may in part be a function of class stream.

The relationship between Reference Group Orientation and SES is described by Breakdown Analysis and t Test in Table 4.15 for Stream B.

Table 4.15

Stream B: Reference Group Orientation to Achievement with
SES of Pupil Home

	Reference Group Orientation		
SES	Mean	Standard Deviation	N
1	2.25	1.27	4
2	1.80	1.25	10
3	2.58	1.31	12

(cntd)

N 26
f 0.10

Probability Level
p > 0.10

Again the Stream effect appears to continue: a low f (0.10) at an insufficient probability level ($p > 0.10$) mitigates H2.2 for Stream B when considering Reference Group Orientation as a function of SES.

Relationship between Reference Group Orientation and Ethnic Origin is described by Breakdown Analysis and t Test in Table 4.16, for Stream B.

Table 4.16

Stream B: Reference Group Orientation to Achievement with Ethnic Origin

	Reference Group Orientation		
Ethnic Origin	Mean	Standard Deviation	N
1	2.26	1.28	19
2	2.33	1.52	3
N 22 t 0.54	Probability Level p > 0.10		

No significant relationship appeared for stream B either maintaining the pattern, rejecting H2.2 for stream B when considering Reference Group Orientation as a function of Ethnic Origin.

The relationship between Reference Group Orientation and SES for Stream C is described by Breakdown Analysis and t Test in Table 4.17.

Table 4.17

Stream C: Reference Group Orientation to Achievement with
SES of Pupil Home

Reference Group Orientation			
SES	Mean	Standard Deviation	N
1	2.75	0.95	4
2	3.37	1.76	8
3	5.33	1.87	9
N 21		Probability Level	
f.52		p > 0.10	

The Stream effect so far detected is repeated here. A correlation at a non-significant level (f.52 p.1) rejects H2.2 for Stream C in that Reference Group Orientation to Achievement is not a function of SES.

The relationship between Reference Group Orientation and Ethnic Origin for Stream C is described by Breakdown Analysis and t Test in Table 4.18.

Table 4.18

Stream C: Reference Group Orientation to Achievement with
Ethnic Origin

Reference Group Orientation			
Ethnic Origin	Mean	Standard Deviation	N
1	3.76	1.92	17
2	6.25	0.95	4
N 21		Probability Level	
t 2.48		p < 0.05	

Stream C again produces significant results for Ethnic Origin ($t = 2.48$, $p = 0.05$). H2.2, for Stream C is therefore confirmed in that here Reference Group Orientation to Achievement is a function of Ethnic Origin.

H2.3 The higher the third form grades, the higher the Reference Group Orientation to achievement

The relationship between Third Form Grades and Reference Group Orientation to Achievement, is described by cross-tabulation and Kendall's Tau C in Table 4.19

Table 4.19

Third Form Grades with Reference Group Orientation to Achievement

3rd Form Grades	Reference Group Orientation			
	1-2	3-4	5-7	Row Total %
1	48.1% (13)	40.7% (11)	11.0% (3)	100
2	59.2% (16)	29.6% (8)	11.0% (3)	100
3	33.3% (8)	41.7% (10)	25.0% (6)	100
N 78		Probability Level 0.004		
Kendalls Tau C 0.2		$p < 0.01$		

A highly significant association at the 0.01 Level was found between the variables although the Tau (0.2) and the N (78) were small. H2.3 is confirmed for Reference Group Orientation as a function of Third Form Grades.

Section B Reference Group Orientation and the Dependent Variables.

Hypothesis 3: Teacher-pupil affect, pupil-teacher affect, SES of proposed occupation and fourth form grades are a function of Reference Group Orientation to achievement.

H3.1 The higher the Reference Group Orientation

to achievement, the higher the Teacher-pupil affect.

The relationship between Teacher-pupil affect and Reference Group Orientation to Achievement, is described by cross-tabulation and Kendall's Tau C in Table 4.20.

Table 4.20

Reference Group Orientation to Achievement
with Teacher-pupil Affect

	Reference Group Orientation			
Teacher-pupil Affect	1-2	3-4	5-7	Row Total %
4 - 5	53.8%(7)	46.2%(6)	(0)	100
6 - 7	68.7%(11)	25.0%(4)	6.25%(1)	100
8 - 14	48.2%(14)	41.3%(12)	10.1%(3)	100
N 58	Probability Level 0.052			
Kendalls Tau C 0.14	p > 0.05			

No significant relationship was found between Teacher-pupil affect and Reference Group Orientation to Achievement since $p > 0.05$. H3.1 is therefore rejected; Teacher-pupil affect not being a function of Reference Group Orientation Achievement.

H3.2 The higher the Reference Group Orientation to achievement, the higher the Pupil-teacher affect.

The relationship between Pupil-teacher affect and Reference Group Orientation to Achievement, is described by cross-tabulation and Kendall's Tau C in Table 4.21.

Table 4.21

Reference Group Orientation to Achievement
with Pupil-teacher affect

	Reference Group Orientation			
Pupil- teacher Affect	1-2	3-4	5-7	Row Total %
5 - 7	46.1%(6)	53.9%(7)	(0)	100
8 - 9	69.2%(18)	23.0%(6)	7.8%(2)	100
10-14	42.2%(8)	47.3%(9)	10.0%(2)	100
N 58				
Kendalls Tau C 0.03				
Probability Level 0.36				
p > 0.05				

No significant relationship was found between the variables as indicated by p 0.05. H3.2 is therefore rejected; Pupil-teacher affect not being a function of Reference Group Orientation to Achievement.

H3.3 The higher the Reference Group Orientation to Achievement, the higher the SES of proposed occupation.

The relationship between SES of proposed occupation and Reference Group Orientation to Achievement is described by cross-tabulation and Kendall's Tau C in Table 4.22

Table 4.22

Reference Group Orientation to Achievement
with SES of Proposed Occupation

	Reference Group Orientation			
SES of Proposed Occupation	1-2	3-4	5-7	Row Total %
1 - 2	35.3%(6)	58.9%(10)	5.1%(1)	100
3 - 4	47.6%(20)	38.0%(16)	14.4%(6)	100
5 - 6	11.1%(1)	55.6%(5)	33.3%(3)	100
N 68				
Kendalls Tau C 0.17				
Probability Level 0.02				
p < 0.05				

A significant relationship between the variables was found as indicated by the probability level (0.02) although the Tau was small (0.17) and the N (68) was larger than previous examples of significant results. H3.3 is therefore confirmed for SES of proposed occupation as a function of Reference Group Orientation to Achievement.

H3.4 The higher the Reference Group Orientation to Achievement, the higher the fourth form Grades.

The relationship between Reference Group Orientation to Achievement and Fourth Form Grades was examined by cross-tabulation as described in Table 4.23

Table 4.23

Reference Group Orientation to Achievement
with Fourth Form Grades

Fourth Form Grades	Reference Group Orientation			
	1-2	3-4	5-7	Row total %
1	55.5%(15)	39.0%(10)	7.4%(2)	100
2	39.5%(9)	45.8%(11)	16.6%(4)	100
3	42.4%(11)	42.3%(11)	19.2%(5)	100
N 81		Probability Level 0.005		
Kendalls Tau C 0.19		p < 0.01		

A highly significant relationship was found between the variables as indicated by the probability level (0.005) although, again, the Tau was small (0.19), with the comparatively larger N of 78. H3.4 is therefore confirmed for Fourth Form Grades as a function of Reference Group Orientation to Achievement.

Section C Reference Group Orientation to Achievement and its cumulative interrelationship with the Independent variables as they impinge upon the Dependent variables.

Hypothesis 4; Teacher-pupil affect, Pupil-teacher affect, SES of proposed occupation and Fourth Form Grades are a function of the cumulative effect of Ethnic Origin, SES, IQ Scores, Class Stream, Third Form Grades and Reference Group Orientation to Achievement.

The cumulative interrelationship of the above variables were presented in hypothetical form in Chapter 3 as a Venn Diagram. Here the results are presented in Venn Dimensions, being derived for each case from the step-wise multiple regression results* as shown in Table 4.24.

Table 4.24

Multiple Regression Statistics
and Derived Venn Dimensions

Independent Variables	
Regression Numbers	Venn Dimensions
Pearson Product-Moment Correlation Coefficient (Correlation Coefficient) ²	Square Side Square Area
Regression sum of Squares minus Sum of (Correlation Co-) ² efficients	Area overlap between Squares
The overlap is a measure of the common effect of the independent variable. The overlap is 'genuine' where the independent variables are positively correlated and negative when the independent variables produce some significant negative covariance from their interrelation.	
Dependent Variables	
The Pearson Product-Moment Correlation Coefficient is expressed as a fraction of 1. Therefore the Dependent Variable Square Side and Area, as the Universe of possible variance is expressed as 1 and 1 respectively.	

* The multiple regression for each case is presented from the last significant step only.

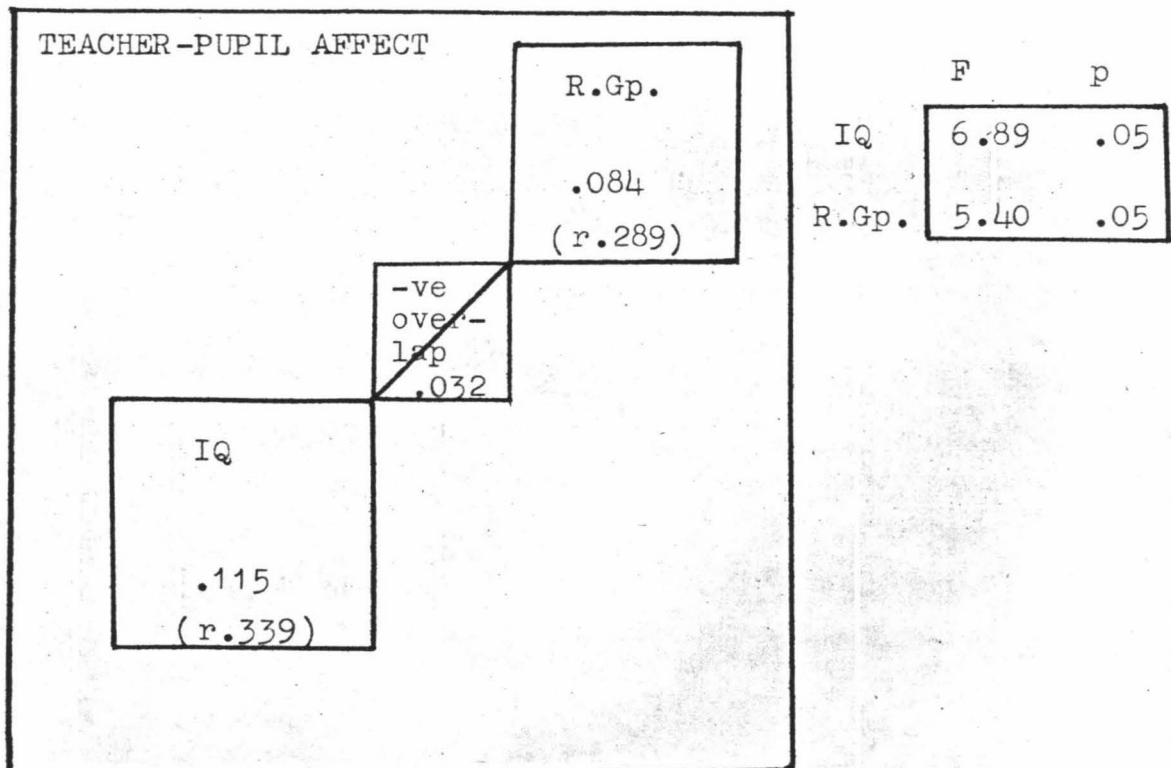
The specific hypothesis results are now presented following the aforementioned treatment.

- H4.1 The higher the teacher-pupil affect, the higher the SES, IQ Score, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively, more for Pakeha than Maori.

Teacher-pupil affect as a function of the cumulative interrelationship of SES, IQ Score, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively, more for Pakeha than Maori is tested for and described in the following Venn interpretation (Fig 4.1) of the multiple regression results. The Venn squares are positioned solely in terms of the temporal logic explained in Chapter 3; it is only their area here that is mathematically meaningful.

Figure 4.1

Teacher-pupil Affect as a Function of the Significant Independent Variables Combined



No cumulative effect was found for any of the independent variables, as illustrated in Fig 4.1 by the absence of any positive overlap between the significant variables; being on and Reference Group Orientation respectively. IQ and Reference Group Orientation did impinge with moderately high predictive power however, (IQr 0.339; RGr 0.289). The smaller negative overlap area of 0.032 is a function of a partial negative interaction between variables within the multiple regression analysis. With these results H4.1 is therefore rejected; Teacher-pupil affect not being a function of any positive, cumulative, variable interrelationship. Instead the two significant independent variables that emerged appeared largely independent of each other.

In order to cater for Stream effects for H4.1, multiple regression analyses were conducted for the Independent Variable and Teacher-pupil Affect within Streams. Table 4.25 describes the results for Stream A; A Venn Diagram was not possible since no independent variables predicted significantly.

Table 4.25

Stream A; Teacher-pupil Affect as a Function of the Independent Variables Combined.

Variable	F	Regression Statistics	
Ref Gp Orientation	1.65	Multiple R	0.39
SES	0.57	R ²	0.15
IQ	0.22	Std Error	2.24
Maximum step reached			
NO SIGNIFICANT STEP REACHED			

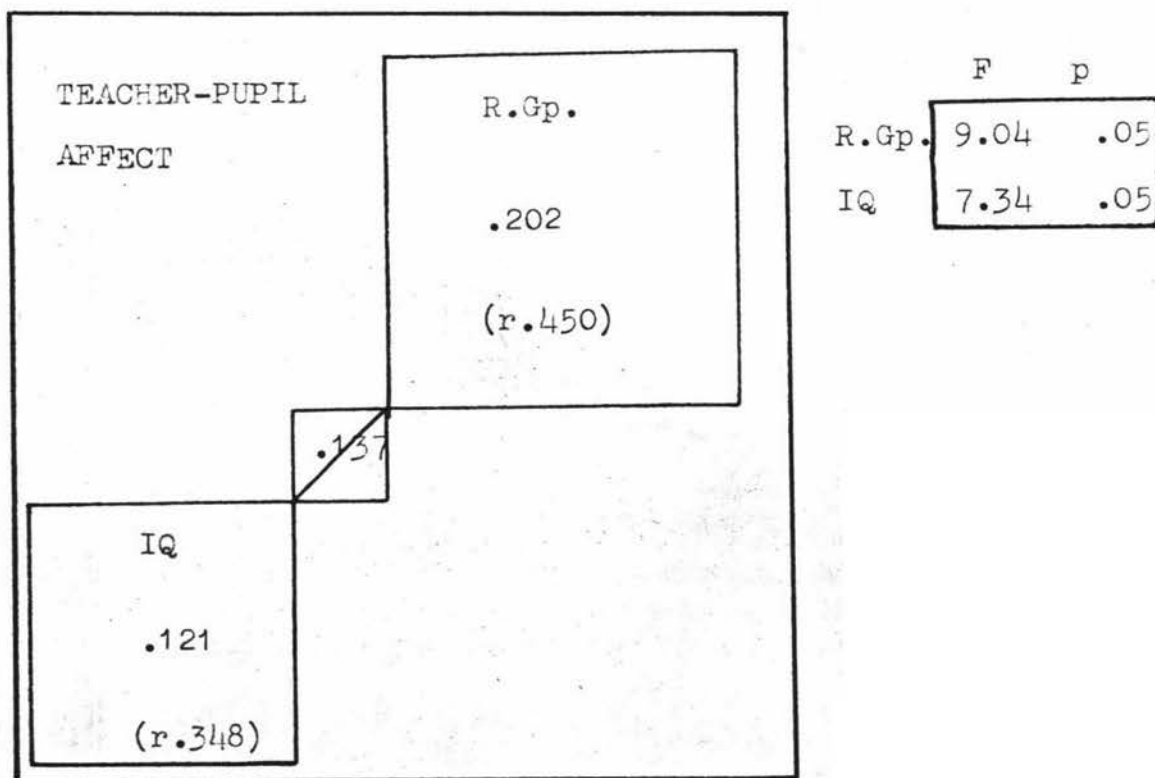
As intimated before no independent variables impinged significantly either as cumulative predictors or as isolated predictors ($p > .05$). Therefore H4.1 for within-stream A effects, is rejected.

Teacher-pupil affect not being a function of cumulative independent variables. It may be inferred then, that IQ and Reference Group Orientation impinge upon Teacher-pupil affect in part at least being a function of Stream A placement.

The same treatment by multiple regression was conducted for Stream B pupils, the results of which, being significant, are contained in Fig 4.2

Figure 4.2

Stream B; Teacher-pupil Affect as a Function of the Independent Variables Combined.



A stream effect appeared here that was almost identical Fig 4.1. Stream B Reference Group Orientation was larger than IQ; both being significant predictors here at the .05 level and largely independent of each other. The existence of this pattern in at

least one of the streams suggest that H4.1 must be rejected; that reference Group Orientation does not increase necessarily with higher class stream and may predict well within a stream, along with IQ, as well as between streams. This is a significant result in that it occurs in spite of a small N (26).

Stream C was not tested for, since valid computation was not possible with the higher rate of missing data. This was due to the 'low stream' nature of the C Stream sample, in that their curriculum and assorted activities were not always comparable to the A and B stream samples at every point, and equivalent data categories were sometimes difficult to maintain.*

However, an interesting comparison is still afforded by comparing the above results with those for H2.2, where only the C stream produced reference Group results of significant power, then with SES and Ethnic Origin. The constriction on inference and higher and latent predictors still continues due to the small N's involved. Conclusions here may be too premature if this fact is not recognised. As mentioned at the outset however, accurate comparison between cross-tabulated correlation and Pearson Product-Moment correlations, are not strictly possible. Nevertheless if similar independent variables impinge in similar order then despite differences in correlation level a similar effect may be inferred, given significance.

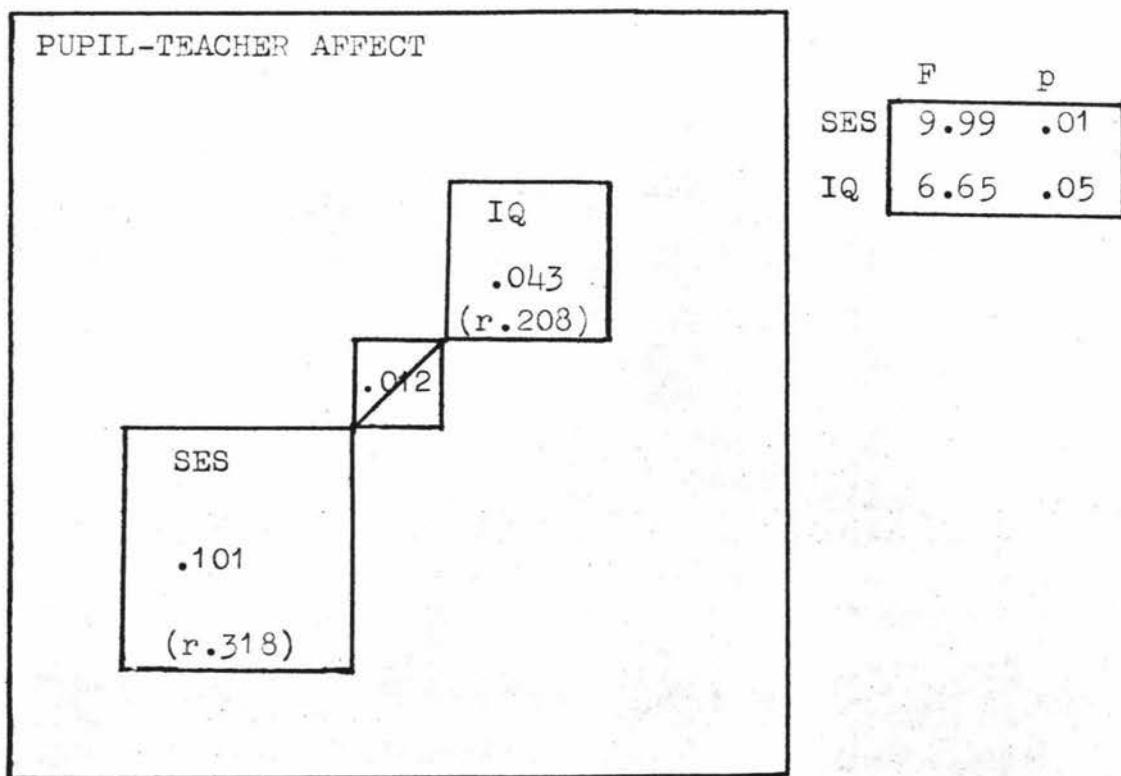
* The class, did, however, engage in core subject activities for mathematics and science, and social studies and English being grouped together.

H4.2 The higher the Pupil-teacher affect, the higher the IQ score, Class Steam, Third Form Grades and Reference Group Orientation to achievement cumulatively, more for Pakeha than Maori.

The relationship between the above independent variables and pupil-teacher affect was explored by multiple regression analysis as described in Fig. 4.3.

Figure 4.3

Pupil-Teacher Affect as a Function of the
Significant Independent Variables
Combined

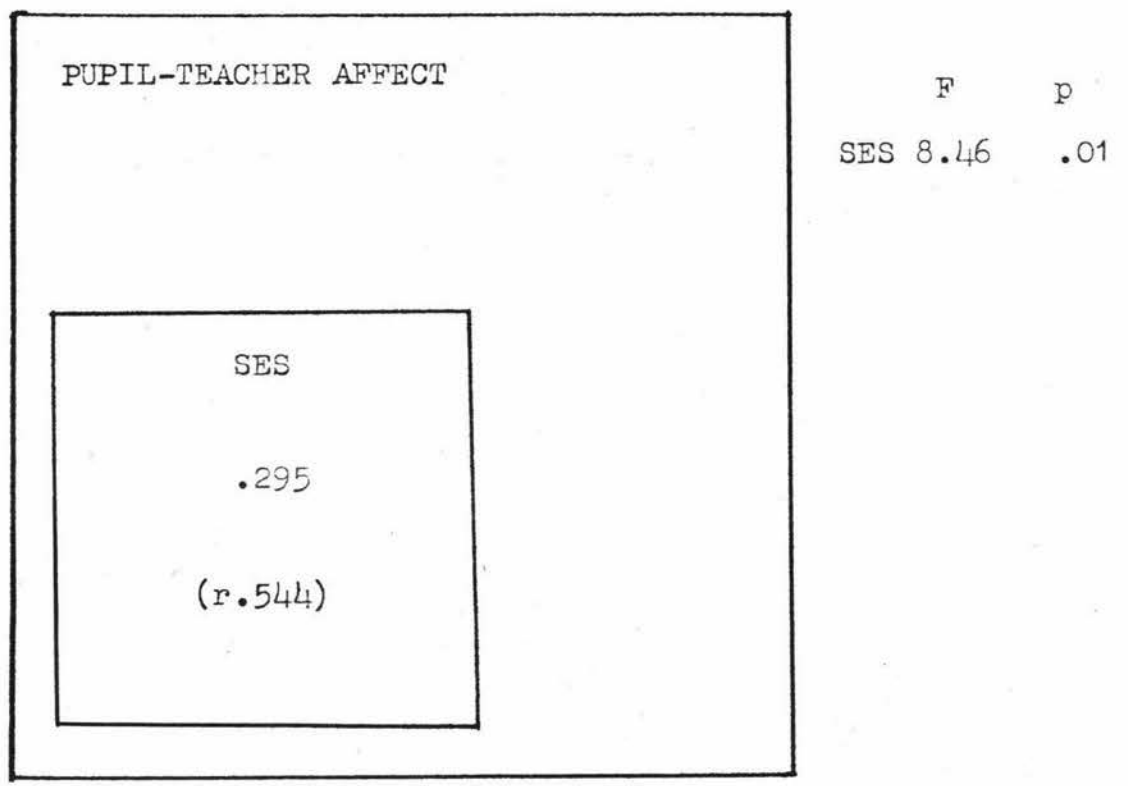


Again no cumulative effect was found; SES and IQ being the only significant predictors. The smaller negative area emerged as before, and it was inferred that no genuine positive overlap occurred. H4.2 is therefore rejected. Had there been any positive overlap, the diagram would have shown partly super-imposed squares.

Stream A pupil scores were subjected to the same multiple regression treatment:the results,being significant, are presented in Venn form in Fig 4.4.

Fig 4.4

Stream A: Pupil-teacher Affect as a function of the independent Variables combined



No cumulative variable predictors were recorded at a significant level;however SES did impinge upon Pupil-teacher affect to a considerable degree,explaining nearly a third of the variance, and at the .01% level.While Teacher-pupil Affect seems to have been the predictive prerogative of Reference Group Orientation and IQ,Pupil-teacher Affect emerges here with SES and IQ as significant,though independent,predictors.This pattern was tested for again in stream B and found to yield no significant results, hence its presentation as regression statistics in table 4.26

Table 4.26

Stream B:Pupil-teacher Affect as a function of the Independent Variables combined.

Variable	F	Regression Statistics	
IQ	2.136	Multiple R	0.477
SES	0.992	R ²	0.228
Ref Gp	0.336	Std Error	1.66
NO SIGNIFICANT STEP REACHED			

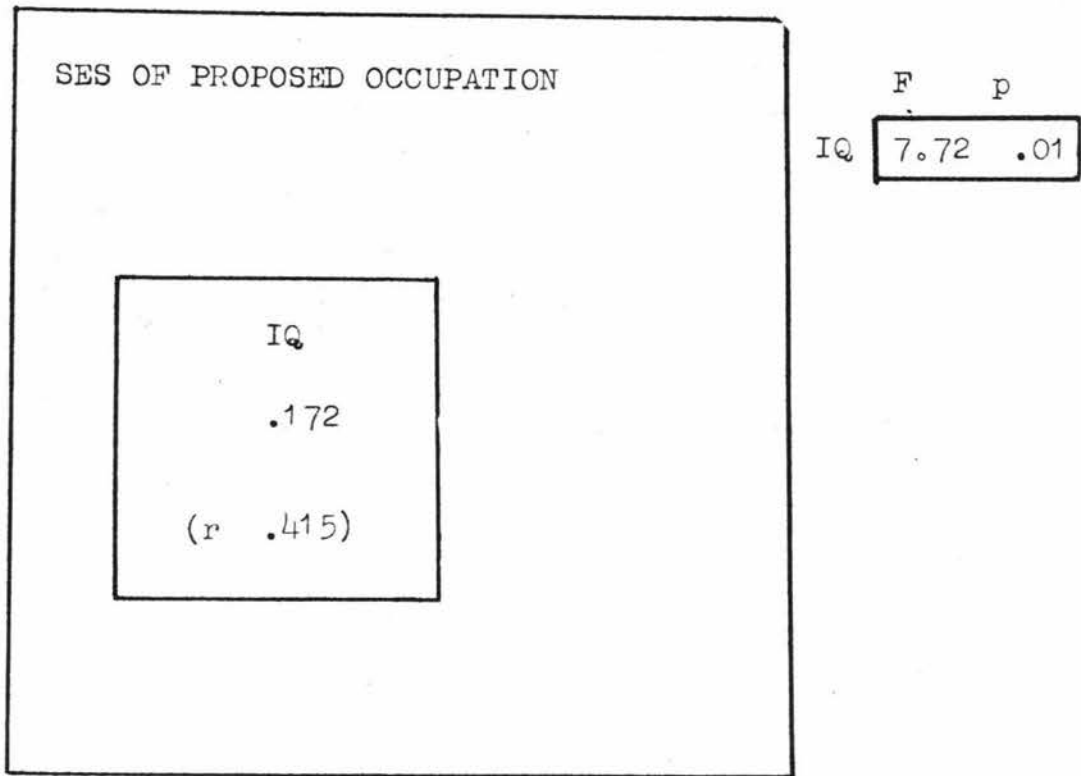
The strong contrast in different stream effects, may be to some extent a function of sample size and to some extent a function of genuine inter-stream differences. On the basis of the above findings, the lack of significant impingement of any kind implies that H4.2 is rejected for this sub-sample. Results such as this prevent accurate statements about the role of the independent variables and Reference Group Orientation, with regard to streaming.

H4.3 The higher the SES of Proposed Occupation the higher the SES, IQ Scores, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than Maori.

The relationships among the Independent Variables, as they impinge upon SES of Proposed Occupation is described in Fig 4.4. Apart from the large predictive power of the variable featured, it may be noted that, as with all the Venn presentations, small amounts of variance are accounted for by other independent variables, but their non statistical significance prevents a valid argument for their presentation.

Fig 4.5

SES of Proposed Occupation as a Function of
Significant Independent Variables combined



The lack of any cumulative correlation continues here and H4.3 is thereby rejected. However IQ proved a good predictor at the .0% level: as an independent impingement. The Dependent Variable was then tested for stream effects, as described in Tables 4.27 and 4.28 for Streams A and B.

Table 4.27

Stream A; SES of Proposed Occupation as a
Function of the Independent Variables

Variable	F	Regression Statistics
Ethnic	1.07	Multiple R 0.542
Ref Gp	1.06	R ² 0.29
IQ	1.66	Std Error 1.16
SES	0.80	

NO SIGNIFICANT STEP REACHED

Table 4.28

Stream B; SES of Proposed Occupation as a Function
of the Independent Variables

Variable	F	Regression Statistics	
IQ	3.15	Multiple R	0.54
Ref Gp	2.63	R ²	0.30
Ethnic Origin	0.40	Std Error	1.07
SES	0.27		

NO SIGNIFICANT STEP REACHED

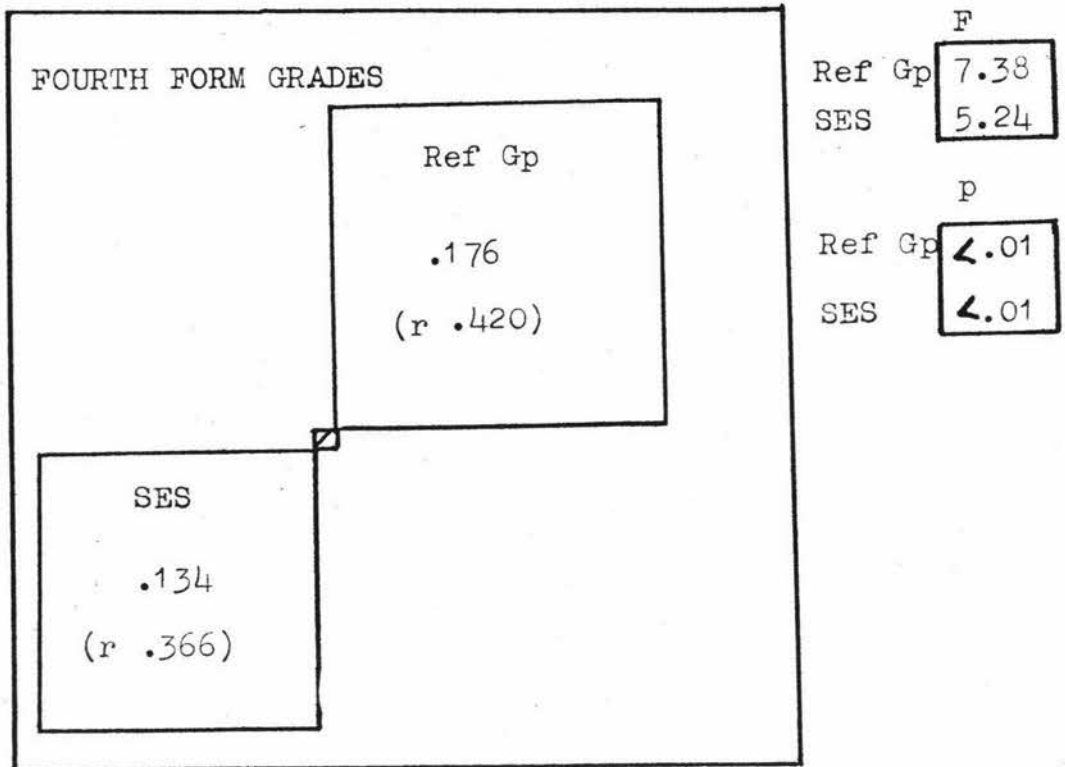
No significant predictors or cumulative effects emerged for either stream case and H4.3 is therefore rejected for within-stream effects and possibly confirmed for inter-stream effects, although the low N again prohibits concrete conclusions.

H4.4 The higher the Fourth Form Grades, the higher the SES, IQ Scores, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than Maori

The relationship of Fourth Form Grades to the combined effect of the Independent variables is described in Fig 4.5

Fig 4.6

Fourth Form Grades as a Function of the Independent Variables Combined



No cumulative effect for Independent Variable prediction occurred, however Reference Group impinged to a large extent (Ref Gp $r=.420$; SES $r=.366$) followed closely by SES. The absence of IQ as a predictor is surprising here, given its usual predominance in academic prediction. This may in part be a function of the fourth form grades themselves; since they were mid-year report extracts and, as mentioned at the outset of the chapter teacher grades were acknowledged to be subjective. Although H4.4 is rejected here and the absence of IQ detracts from any possible positive interrelationships, IQ did predict Third Form Grades very well at the .01% level, although with a Tau C of 0.24 (see appendix C).

Fourth Form Grades were subjected to a multiple Regression Analysis for within-stream effects of Independent Variables. Fig. 4.6 and 4.7 describe the results for Significant Predictors.

Fig 4.7

Stream A: Fourth Form Grades as a Function of the Significant Independent Variables

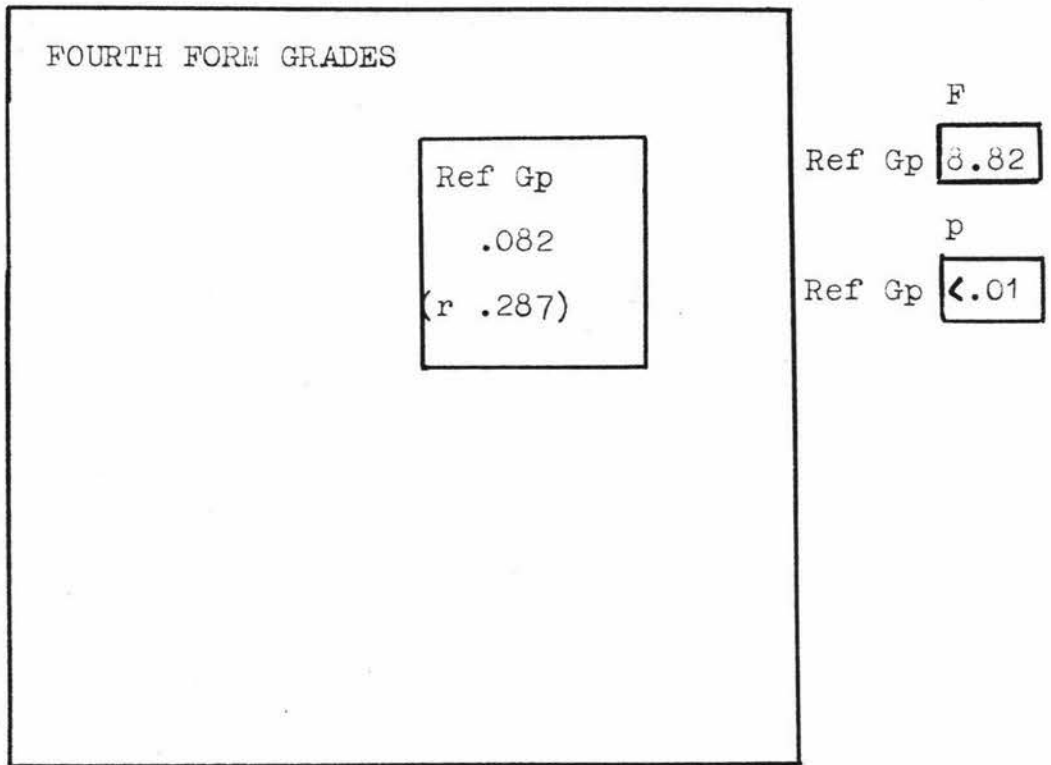
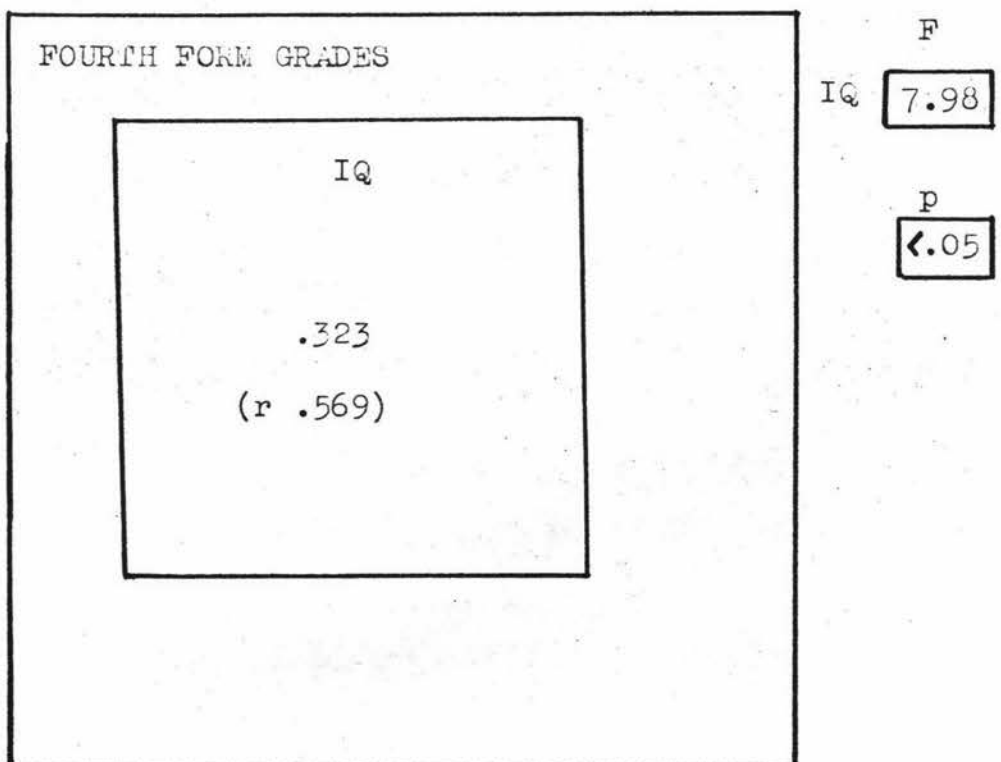


Fig 4.8

Stream B: Fourth Form Grades as a Function of the Significant Independent Variables



Finally, no cumulative effect for Independent Variable prediction occurred within either stream. However Reference Group Orientation to Achievement did impinge within the A Stream with a high correlation significance level ($p < .01$). This repeats the trend found for non-streamed Fourth Form Grades, the inference being that Reference Group Orientation is not principally a function of streaming. Again it is interesting to note the absence of IQ predictive power, although the small N prevents widespread conclusions.

Within the B Stream IQ did emerge as a very powerful predictor ($r .569$, $p < .05$) confusing the issue somewhat. It is difficult to know whether this dichotomous intra-stream result is a function of the idiosyncracies of the sample population or represents an effect of streaming. However for both Stream A and B Hypothesis 4.4 is rejected at least in part.

Appendix contains results of correlations between all the independent and dependent variables. The results presented in this chapter may be seen in the light of the Appendices results, where relevant. These will inform the conclusions and discussion in Chapter 5.

A summary of the findings by hypothesis is presented here by way of recapitulation.

Summary

Hypothesis 1

H1.1 Pakeha pupils exhibit higher Reference Group Orientation to Achievement than do Maori pupils. Confirmed

H1.2 The higher the SES the higher the Reference Group Orientation Confirmed

Hypothesis 2

H2.1 The higher the IQ the higher the Reference Group Orientation to Achievement. Confirmed

H2.2 The higher the class Stream the higher the Reference Group Orientation to Achievement. Partially Confirmed for Streams A, B and C, Partial Rejection of within-stream effect for Streams A, B, and C.

H2.3 The higher the Third Form Grades the higher the Reference Group Orientation to Achievement. Confirmed

Hypothesis 3

H3.1 The higher the Reference Group Orientation to Achievement the higher the Teacher-pupil Affect. Rejected

H3.2 The higher the Reference Group Orientation to Achievement the higher the Pupil-teacher Affect. Rejected

H3.3 The higher the Reference Group Orientation the higher the SES of proposed Occupation Confirmed

H3.4 The higher the Reference Group Orientation to Achievement the higher the Fourth Form Grades. Confirmed

Hypothesis 4

H4.1 The higher the Teacher-pupil Affect the higher the SES, IQ Score, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than Maori Rejected: Significant independent predictors (1) IQ (2) Reference Group Orientation .
Stream A: -
Stream B: (1) Reference Group Orientation
(2) IQ

(cntd)

Summary (cntd)

H4.2 The higher the Pupil-teacher Affect the higher the SES, IQ Score, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than for Maori

Rejected: Significant independent predictors (1) SES, (2) IQ
Stream A: SES
Stream B: -

H4.3 The higher the SES of Proposed Occupation the higher the SES, IQ Score, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than Maori

Rejected: Significant independent predictors SES
Stream A: -
Stream B: -

H4.4 The higher the Fourth Form Grades the higher the SES, IQ Scores, Class Stream, Third Form Grades and Reference Group Orientation to Achievement cumulatively more for Pakeha than Maori

Rejected: Significant independent predictors (1) Reference Group Orientation (2) SES
Stream A: Reference Group Orientation
Stream B: IQ

CHAPTER V

Conclusions and Discussion

Introduction

The results presented in Chapter IV, and those tabled in Appendix C, have implications for the theoretical model employed to establish the hypothesis structure and for the prediction of achievement in particular. Here the model is redrawn in the light of the results, indicating an important shift in emphasis, although not discrediting the model entirely. The implications from the reconceptualisation are then discussed in the light of the research reviewed in Chapter I and the theory is invoked to interpret the study, from Chapter II. Finally, more direct educational issues are evoked in the light of the discussion and the chapter ends with implications for future research.

The Model

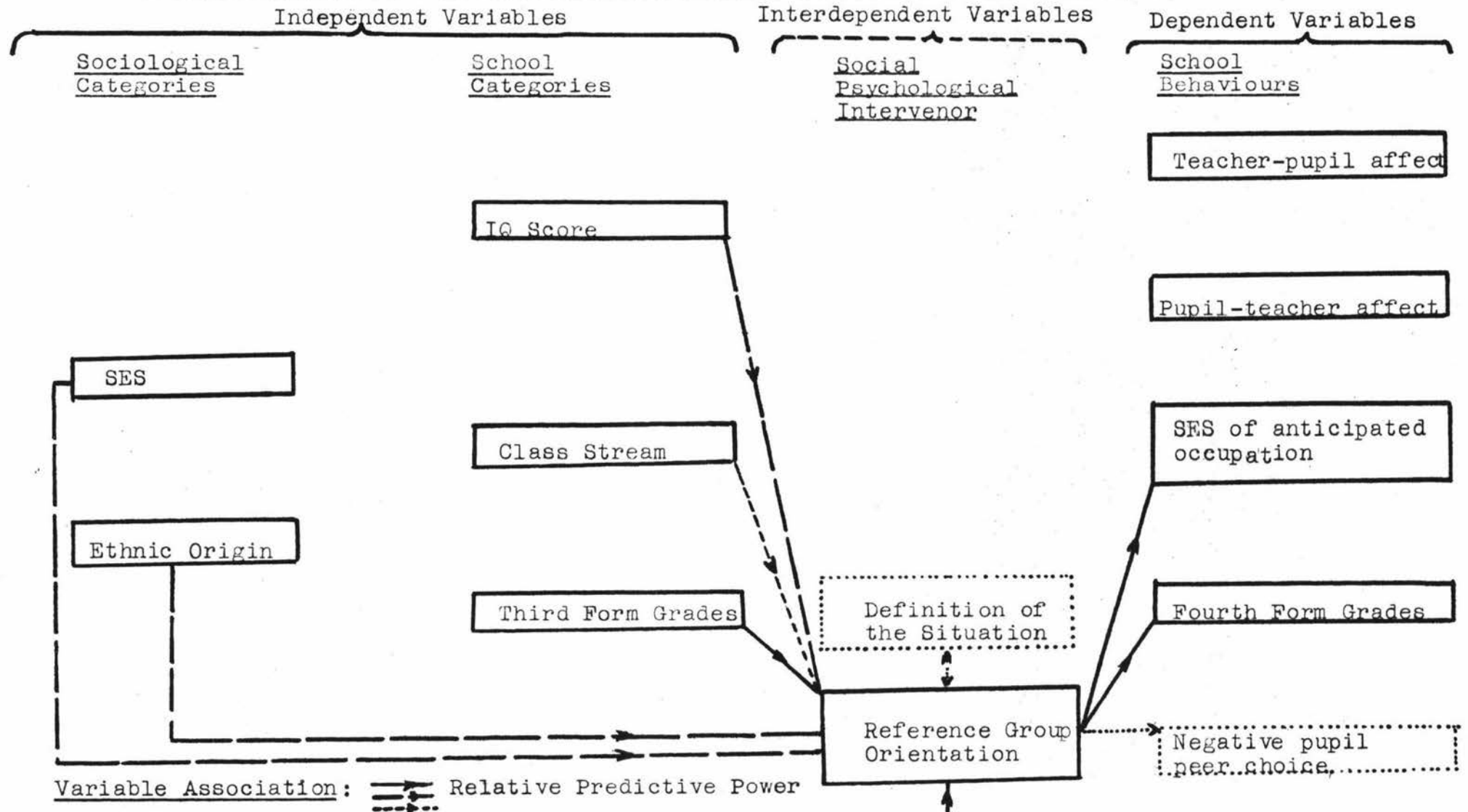
Given the confirmed hypotheses, as evidence for the existence and operation of the functions they describe, the following structure of association emerges, as featured in Fig 5.1 (see overleaf).

The correlations drawn as arrows derive from Sections A and B of Chapter IV and the position of Reference Group derives from the finding in Section C, that significant predictors of the school behaviours emerge largely independent of each other and do not pass through or mesh cumulatively with other significant predictors. As mentioned before, the model cannot be redrawn to incorporate the paths of prediction from independent variables directly

Figure 5.1

The Revised Model

School Achievement: Societal, Institutional and Interpersonal Influences



to the dependent variables since their correlation measurement operated on a different basis from that of the Reference Group correlations. Normally a test for this kind of process involves Path Analysis, however, the sample size here prevented its use. However, the correlation results cannot be ignored as expressed in the multiple regression (Pearson Product Moment) correlations and as balanced by the direct independent, dependent cross-tabulations in Appendix C to prevent any misleading inferences. But the most direct inference here is that Reference Group Orientation to Achievement appears to intervene between variables rather than to mediate them as they impinge upon the dependent variables.

Theoretical Conclusions and Discussion

There are several theoretical implications for Symbolic Interactionism and Reference Group Theory. Firstly, it seems that the gross sociological summary categories of SES and ethnic origin, as suggested by the aforementioned perspectives are not the strongest influences in their own right in this educational situation. The strongest associations are described by the highest predictions, of third form grades (as an independent variable) and SES of proposed occupation and fourth form grades (as dependent variables). They reflect the exigencies of the situation in which the fourth former finds himself, looking back, looking forward and experiencing feedback in the present respectively. The differential definitions and attitudes resulting

from such a situation might be expected to have differential effects and results from different Reference Group Orientations to achievement.

In terms of the independent variable of third form grades, the pupil's academic self concept must to some extent be responding and interpreting that institutional judgement of his ability and effort. Given the axiom outlined in Chapter I, that the repeated experience of success is the best generator of success, then it is reasonable to expect a positive correlation between high previous grades and high functional Reference Group Orientation to achievement. In terms of the Exchange theory, the actor chooses referents in the world around him that are rewarding. A perennial difficulty arises here, in that to what extent may academic success be seen as part of the cause, and to what extent as part of the effect of a highly functional Reference Group Orientation to achievement? This problem has been delineated in the review on self-concept and remains unresolved within social science. The notion of interdependence however, affords a reasonable conceptual means of dealing with the problem, in theory at least. As Sanborn and Wasson (1966) have pointed out, the need exists for some statistical means of dealing with concepts which are seen to be interdependent.

It has been the argument of this thesis that Reference Group Orientation to achievement operates in an interdependent mode as mediator, and intervenor, between variables which have traditionally been seen as independent and dependent variables. The conceptual and practical problems associated

with such a notion are made even more significant when it is realised that in this study at least, the interdependent variable was a consistently high correlational variable, relative to the impact of the other more conventional predictors such as SES, Ethnic Origin and IQ. If, however, as was shown in this thesis, Reference Group Orientation may partly be a function of the SES of the home, its value as a better predictor may be because it contains other non-SES influences that afford a more refined measure by its indices. Such a suggestion must be complemented by the possibility that the impact of the school from the age of five on may contribute its own significant influences, which may involve referent modification that differs from home referent content. The answer to these conceptual problems is not supplied by the present study, but the notion of interdependence does contain the tensions within both home and school as they influence the pupil.

As an interdependent operationalised concept then, Reference Group Orientation to achievement was here shown to be primarily an intervention to the other selected variables, achieving association with both independent and dependent variable measures. It's hypothesized role as a mediator was lost in practice, on the basis of the research sample and data treatment. However, this does not destroy it's categorization as an interdependent variable since intervention may also be shown to occur on the basis of association and functional relationship to both independent and dependent variables.

Perhaps the most interesting finding the thesis yielded was the apparently higher predictive power of Reference Group Orientation than IQ for fourth form grades. What has been said at a sociological level may be said at an educational level: that traditional category measures often seen as primarily independent effects, such as the IQ score, may in fact be mediated and/or intervened by more refined variables. These carry influences within them more closely related to the phenomena predicted for. The argument for the conceptual and operational integrity of the reference group, as developed in this study has centred on its potency as an intimate agent in the influence of concrete behaviour. Within an educational setting, it was further argued that school achievement as a behaviour, was a direct function of Reference Group Orientation to achievement (within the static model). The results bear this out, over and above the impingement of IQ predictions.

The Reference Group Orientation index and its significant correlation with the SES of proposed occupation was also interesting in the light of the above discussion in that IQ was also a good predictor (see Appendix C). If, as was intimated at the outset of the thesis that the school is a filter for occupational allocation based principally on school and educational success, then the IQ as a traditionally good predictor of success might be expected to be associated with pupils' estimate of their eventual occupational chances. Brophy and Good (1974) have shown that teacher-pupil interaction and expectation effects communicate a great deal about how positively the teacher estimates pupils' academic opportunities. Their discussion

of Silberman's work, in part replicated in this thesis, illustrates the differential social distance that occurs between the largely norm orientated institutional representatives and the wider gamut of responses on the part of the pupils in terms of teacher-pupil relationship. The dissonance between teachers' perception of their relationship with the pupils and the pupils' perceptions was significant (see Appendix C). However, the point for the thesis here is that Reference Group Orientations were not related to either teacher-pupil affect or pupil-teacher affect. As has been shown from Waller's early insight, teachers seen to be too friendly are not always respected as teachers and that the successful classroom, of its nature, is moderately coercive. This would correspond with the main pupil selection category being respect rather than attachment. Teachers, on the other hand, given their role position and its relatively less coercive nature appeared to be more magnanimous in their affect choice in that attachment was the dominant category. This occurred in the face of different Reference Group Orientations to achievement and was not a function of them.

Personal affect then does appear to break through the institutional definitions of the situation on the part of the different actors to some extent. However, teacher perception of their relationship with their pupils and their pupils' reciprocal perception does appear to be mildly associated with SES (see Appendix C). Furthermore, teacher-pupil affect also appears related to IQ and third form grades, fourth form grades and SES of proposed pupil occupation.

It would be pure inference to decide about cause and effect here. The affect of categories of attachment and concern, for teacher and pupil affect indices, coinciding as they do with the higher ratings for the aforementioned variables, bring together a pattern of relationships; in that SES correlates very well with teacher-pupil affect and IQ. Third form grades correlate well with IQ and both third and fourth form grades correlate well with SES of proposed occupation. The absence of Reference Group Orientation as a predictor from this network is significant, reinforcing the finding established from the multiple regression results, that reference group effects impinge largely independent of even the social psychological predictors. Rather the index may be measuring some effect which is the result of a cumulation of many experiences both within and outside of the model presented here.

This conclusion of intervention is congruent with reference group and symbolic interactionist conceptualisations, although not exactly as hypothesized for in this study. The individual actor defines and chooses references within a matrix of influences, that are to a certain extent idiosyncratic, and to a certain extent social. Mead posited an internal dialectic within the human mind, preceding observed behaviour. Habituated behaviour, namely the repetition of some modes of dialectic, is a means of adaptation of the human organism to the environment. Within this conceptualisation, human uniqueness and unpredictability are integral. There are always constraints, since the actor's previous experiences focus and limit his

individual perceptions, but there are also numerous possible completions of an act and an individual might select one over another. Therefore, any understanding or attempt at predicting behaviour must reconcile itself to the premise that pupil and teacher behaviour patterns involve a number of subjective decisions which may be made consciously immediately prior to the completion of the act and others which may have been made in the past and are now habitual. Findings that indicate consistent social psychological predictors of identical dependent variables then, especially predictors that express individual social psychology such as the referent group, are not surprisingly independent of each other. They may well inform and interpret each other in the actor's mind within the internal dialogue of the I and the Me, but may not necessarily co-vary.

The dissonance between teacher-pupil perception of their affect relationship and pupil-teacher perception, in that many pupils did not indicate attachment to teachers who, on the same criteria, had indicated attachment, may be explained by the different reference perspectives of the two different actors involved. At least until some stage in the fourth form, school attendance is compulsory and no immediate institutional goal is at hand, only the growing shadow of School Certificate the following year. Teachers, on the other hand, are not so circumscribed generally.

The relationships exhibited or not exhibited between Reference Group Orientation to achievement and the dependent

variables may also be seen in the light of independent variable impingement. Ethnic origin predicted nothing at all, although this may be a function of its small population compared to the total sample, a constraint which applies to all case study work of this nature. SES didn't predict SES of proposed occupation, and the frequency tables show a mild trend upwards in terms of pupils' SES origin and their occupational goals. As indicated before it was Reference Group Orientation to achievement that predicted SES of proposed occupation well, a demonstration of the theme inherent in the literature review, that more refined discriminators of behaviour at the social psychological level are now interpreting the previous more gross sociological predictors. The nature of this interpretation requires much further exploration than is possible here, but the trend is noticeable within the study as well as in the research findings presented in Chapter I.

The independent significant predictors in Section C of the hypothesis revealed IQ and Reference Group Orientation to be high correlates of teacher-pupil affect. This was found in spite of the insignificant finding in the direct cross-tabulations. Sample size may be affecting the results here; pointing to the need for wider replication. However, on its own terms, taking into account the higher correlation level yielded by the Pearson Product Moment treatment, it reinforces the role relationship mode teachers operate within as participants primarily of the institutional structure in schools. Teacher behaviours may be circumscribed to a certain extent by pupil behaviours which are functional for

teacher role performance, such as a good IQ score and a high Reference Group Orientation with their concomitantly positive implications for school performance.

IQ impinged significantly again upon pupil-teacher affect, without Reference Group Orientation, being superseded by SES. This may be seen as supportive of the role modes of the school again in that, despite its summary nature SES still remains an important associate of interpersonal relations in the secondary school. As a reflection of some aspects of the habitual modes of different social groups as they participate in the middle class milieu of the school, SES emerged as a predictor for SES of proposed occupation, appearing to again contradict the cross-tabulation findings for those two variables; Reference Group Orientation to achievement not appearing. This continues to speak for the habitual side of the Symbolic Interactionist conceptualisation, that patterns of behaviour are to a certain extent structural and functional in their influence on the individual and pupil home may well have long term effects for adult lifestyle and occupation. The only finding that is vindicated by the Pearson Product Moment treatment is the maintained status of Reference Group Orientation to achievement as a powerful predictor of fourth form grades, higher than the other predictor within the present study, SES. Reference Group Orientation only lost this status within Stream B, being maintained in Stream A, in the face of sample size limits. Further, Reference Group Orientation appeared to be associated with negative pupil peer choice and simple definition of the school situation (see Appendices C and D).

This understanding and treatment of Reference Group theory having yielded such results, affords a possible justification for its development in theory and practice. To a certain extent it may supply a way forward in the perennial problem within sociology of how to relate macro to micro levels of explanation. Berger (1966) has argued that might be done by relating his phenomenological approach to sociology of knowledge, to Symbolic Interactionism. As Rex notes, this does not show us how but it indicates a direction. Rex further points out:

"it is a matter of some importance that we develop forms of analysis that can provide a dynamic relationship between situated activities of negotiated meanings and the structural relationship that the former presuppose ... the levels, if they are to be usefully linked, must be linked at the substantive level by an explanation whose conceptual structure directs empirical exploration of the relationship between the levels".

It has been argued in this study that Reference Group Orientation to achievement, by mediating intervening social educational systems supplies some means towards the link that Rex speaks of.

Implications for Future Research

The very nature of the study, being a pilot endeavour containing untried techniques with a small sample, suggests replication with a wider population. If the study's implications carry any weight then such replication would test for the index's validity and reliability. In particular, testing again ensuring more effective interclass marking criteria would explore the relationship between IQ and

Reference Group Orientation index more realistically. Statistical treatment with Path Analysis would be possible with a larger sample; exploring the most refined intervariable patterns. Path Analysis might also afford a dynamic interpretation of the model, and would further test for Reference Group Orientation's interrelationship with the independent variables in a succinct way revealing any flow of impingement, as implied in the model.

Streaming effects might also be more successfully catered for with larger sample size and by incorporating a simple enumeration or stream allocation into the other statistics. This might alleviate the somewhat cumbersome approach used in this study for streams. A pilot trial with the interview might also be appropriate and the interview itself tested for reliability with other interviewers. The interview itself structured possible referents for pupils and merely sought pupil response, whereas further research might test for open ended attempts to measure referent location and power. This approach is closer to a true Symbolic Interactionist understanding of research method, since more structured techniques tend to inhibit the vocabularies of motives and meaning categories, native to the actors. A more elaborate operationalisation, perhaps based more fully on Manis and Meltzer's precis of related research (Appendix A) would deepen the concept of the definition of the situation as used here.

Educational Implications

As Backman and Secord (1968) were recorded in Chapter II as suggesting three variables that they thought contributed to the social climate of the school, being 1) the attributes that entering students bring with them, 2) characteristics that the school itself exhibits as an institution and 3) informal structures passed on from one generation of students to another. Backman and Secord intimated that it was the first category that was thought to determine school behaviour the most; ironically being the least amenable to change. If the Reference Group Orientation to achievement index, as a client characteristic, measure social psychological phenomena of some consequence, then knowledge of its structure and content may afford more accurate predictions of pupil behaviour, especially school performance. SES, ethnic origin and IQ indices also contribute to a measurable understanding but as largely pre-school client characteristics. They are very resistant to change; if change is a desirable aim. However, knowledge of their location and influence of achievement referents may afford a realistic means of intervention. Albeit that the educational implications are significant, any substance to Reference Group Orientation to achievement as a useful and reliable predictor of school performance rests upon its successful replication.

APPENDIX A

Related Research: Aspects of the Definition of the Situation
as in Manis and Meltzer (1968) pp 341-342

1. Identification by the identity incumbents of the relevant others present (Ball, forthcoming; Foote, 1951: 17-21; McHugh, 1968:43; Stone, 1962: 89-90 Strauss, 1959:47; Turner

1956; Weinstein and Deutschberger, 1963; 1964).⁸ 2. The incumbents' perception of the evaluation that those others have made of the situation, including the moral and emotional or sentimental connotations of the immediate setting as they are established with reference to the others' identification of themselves. (Ball, forthcoming; Jones and Davis 1965:266-227; McHugh, 1968:44; Newcomb, 1958:180; Shand, 1920; Shibuntani, 1961: 332-334; Stone, 1962:97-101, Strauss, 1959:59; Thomas, 1951:69; Turner, 1956:321; Weber, 1947:90-95). 3. The incumbents' perception of the goals or intentions of the others while in the setting (Ball, forthcoming; Jones and Davis, 1965: 222-223; Schutz, 1964:32, Strauss, 1959:59; Turner, 1956; Weber, 1947: 90-95). 4. The incumbents' perception of the plans of action (strategies for reaching the goals) of the relevant others (Turner, 1956:321). 5. The incumbents' perception of the justifications or vocabularies of motives associated with the others' plans of action (Mills, 1940; Schutz, 1964:32). 6. The incumbents' evaluation of the situation (Ball, forthcoming, Cooley, 1922:183-184; Foote, 1951:20-21; McCall and Simmons, 1966:136; Shand, 1920; Shibutani, 1961:332-334; Stone, 1962:93, 97-101; Strauss, 1959:59; Turner, 1956:322). 7. The incumbents' plans of action (Jones and Thibaut, 1958:158-174). 8. The incumbents' justifications of the plans (Burke, 1945; 1950; KacIver, 1964:293; Mills, 1940; Schutz, 1964:11).

And as through the looking class: 9. The identity incumbents' perception of the identification of them by the relevant others (McCall and Simmons, 1966:140-142; Stone, 1962:93; Turner, 1956:321-323; 1962:34). 10. The incumbents' perception of the evaluation of the situation imputed to them by the others (Cooley, 1922:183-184; Jones, 1964; Stone, 1962:97-101; Turner, 1956:321-323; 1962:34). 12. The incumbents' perception of the plans of action imputed to them (Foote, 1951; Strauss, 1959:51; Turner, 1956: 321-323) 13. The incumbents' perception of the justifications of the plans imputed to them (Mills, 1940; Schutz, 1964:32-33; Strauss, 1959:52).

⁸The citations at the end of each of these statements refer to some of the relevant theoretical and empirical literature. They do not, in any way, represent an exhaustive inventory of pertinent entries. Also the operational statements presented in this paper are occasionally couched in language rather different from that found in the works cited.

The Research Instruments

I. The Class Questionnaire

MASSEY UNIVERSITY

Fourth Form Questionnaire

This is a questionnaire designed to help us understand a little more of pupil experience with fourth form life and school in general. The information that is given here will be entirely confidential and anonymous, and will only be used on that basis. Thank you.

- (1) The name of your father's occupation (if deceased or retired, name the occupation as it was).
.....
- (2) Your ethnic origin as you see yourself, ie: Maori, Pakeha, Chinese, Maori + Pakeha, Chinese + Maori, etc.
.....
- (3) Your sex
- (4) Your fourth form stream and class name
- (5) Write the name of the person you most like to be with in your class
- (6) Write the name of the person you like to be with second most in your class
- (7) Write the name of the person you like to be with third most in your class.....
- (8) Write the name of the person you like to be with least in your class
- (9) Your name

(This will NOT be used in the research, apart from initial classification into statistics).

II. The Interview Questionnaires

(a) Pupil-Teacher Affect

MASSEY UNIVERSITY

Fourth Form Questionnaire

This is a questionnaire designed to study pupil-teacher feelings and attitudes. The information given here will be entirely confidential and anonymous and will only be used on that basis.

Think about the teachers you have this year and how you feel about them. Below is a list of some of your teachers' subjects. Beside each subject tick the category that best expresses your feeling towards the teacher concerned. The categories may be understood as follows:

- A. A teacher you like alot. If you could spend an extra year with this teacher you would, for the enjoyment of it.
- B. A teacher you respect but don't really like especially. He is a good teacher but thats all.
- C. A teacher you are indifferent to, you don't especially respect or like. You don't really care about him or her.
- D. A teacher you reject; whom you dislike alot and will be glad to leave his class.

	A	B	C	D
SOCIAL STUDIES				
ENGLISH				
MATHEMATICS				
SCIENCE				

Thank you for your help.

(b) Teacher-Pupil Affect

MASSEY UNIVERSITY

Fourth Form Questionnaire

This is a questionnaire designed to study teacher-pupil feelings and attitudes. The information given here will be entirely confidential and anonymous, and will only be used on that basis.

Attached you will find a class roll for your subject in the fourth form. Beside each name you will find four possible categories in which to place the pupil. Think about how you feel towards each pupil and then tick the appropriate category. The categories may be understood as follows:

- A. If you could keep some students another year for the enjoyment of it, you would choose this one.
- B. If you could devote alot of your attention to pupils who concerned you a great deal, you would choose this one.
- C. If a parent were to drop in unannounced for an interview, this pupil would be one of the ones you would be least prepared to talk about.
- D. If your class was to be reduced by a certain number, you would be relieved if this pupil was removed.

Thank you for your help.

III. The Interview Schedule

Reference Group Structure and Orientation to School

Normative: (1) "How do you feel about school, do you like it, or dislike it, or feel a mixture of the two most of the time?"

(Like, mix, dislike)

Comparative:

Equity (2) "Do you think you are treated fairly most of the time at school by teachers compared to others?"

(Yes/No)

Legitiminator (3) "Are there many people in your class who would agree with your feelings about fairness?"

(Yes/No)

Role model (4) "Do your parents help you with your homework?"
(parents)

(Yes/No)

Role model (5) "Do you look to someone or people at school
(friends) as a guide as to how to do schoolwork?"

(Yes/No)

Accommodator (6) "Are there any people in your class who are your kind of people, whom you feel are very similar to you? Do you compete with them in some way with schoolwork?"

(Yes/No)

Audience:

Parents (7) "If you had done something really well at school, would you like your parents to know first?"

(Yes/No)

Friends (8) "Do you think your friends would be impressed by you doing something well?"

(Yes/No)

Direct Independent Variable-Dependent
Variable Cross-tabulations

I. Inter-Category Comparisons

Socio-economic Status

- | | | |
|----|-----------------------------------|-----------------|
| 1. | SES with IQ | Not significant |
| 2. | SES with Third
Form Grades | Not significant |
| 3. | SES with Teacher-
Pupil Affect | Significant |

Table A.1

Socio-economic Status with
Teacher-Pupil Affect

		Teacher-pupil Affect		
		4-7	8-10	11-14
SES	1	50.0%(10)	40.0%(8)	10.0%(2)
	2	68.2%(15)	31.8%(7)	(0)
	3	25.0%(4)	43.0%(7)	22.7%(5)

Kendall's Tau C =
.21
p > .01

- | | | |
|----|-----------------------------------|-------------|
| 4. | SES with Pupil-
teacher Affect | Significant |
|----|-----------------------------------|-------------|

Table A.2

Socio-economic Status with
Pupil-teacher Affect

		Pupil-teacher Affect		
		5-7	8-10	11-13
SES	1	10.0%(2)	75.0%(15)	15.0%(3)
	2	18.2%(4)	72.0%(16)	9.0%(2)
	3	43.7%(7)	50.0%(8)	6.3%(1)

Kendall's Tau C
- .15
p > .04

- | | | |
|----|--|-----------------|
| 5. | SES with SES of
proposed occupation | Not significant |
| 6. | SES with Fourth Form
Grades | Not significant |

Ethnic Origin

- | | | |
|----|--|-----------------|
| 1. | Ethnic Origin with
Teacher-pupil Affect | Not significant |
| 2. | Ethnic Origin with IQ | Not significant |
| 3. | Ethnic Origin with
Third Form Grades | Not significant |
| 4. | Ethnic Origin with
Pupil-teacher Affect | Not significant |
| 5. | Ethnic Origin with
SES of proposed occupation | Not significant |
| 6. | Ethnic Origin with
Fourth Form Grades | Not significant |

IQ

- | | | |
|----|---------------------------------|-------------|
| 1. | IQ with Teacher-pupil
Affect | Significant |
|----|---------------------------------|-------------|

Table A.3

IQ with Teacher-pupil Affect

		Teacher-Pupil Affect		
		4-7	8-10	11-14
IQ	1	5.0%(1)	(0)	50.0%(1)
	2	42.3%(11)	50.0%(13)	7.7%(2)
	3	57.7%(15)	38.5%(10)	3.8%(1)

Kendall's Tau C
 - .16
 p > .05

2. IQ with Pupil-Teacher Affect Not significant
3. IQ with SES of Proposed Occupation Not significant
4. IQ with Fourth Form Grades Not significant

Third Form Grades

1. Third Form Grades with Teacher-pupil Affect Significant

Table A.4

Third Form Grades With Teacher-Pupil Affect

		Teacher-pupil Affect		
		4-6	7-9	10-12
Third Form Grades	1	55.0%(11)	45.0%(9)	(0)
	2	42.8%(9)	42.8%(9)	14.4%(3)
	3	7.7%(1)	53.9%(7)	38.5%(5)

Kendall's Tau C = .506
p > 0.00

2. Third Form Grades with Pupil-teacher Affect Not significant
3. Third Form Grades with SES of proposed occupation Significant

Table A.5

Third Form Grades with SES of proposed Occupation

		SES of Proposed Occupation		
		1-2	3-4	5-6
Third Form Grades	1	35.0%(7)	60.0%(12)	5.0%(1)
	2	25.0%(6)	62.5%(13)	12.5%(3)
	3	2.0%(4)	60.0%(12)	20.0%(4)

Kendall's Tau C = .24
p > .002

4. Third Form Grades with Fourth Form Grades Significant

Table A.6

Third Form Grades with Fourth Form Grades

		Fourth Form Grades			Kendall's Tau B .39 $p > 0.00$
		1	2	3	
Third Form Grades	1	61.5%(16)	27.0%(7)	11.5%(3)	
	2	33.3%(9)	29.6%(8)	37.0%(10)	
	3	9.0%(2)	4.0%(9)	51.0%(11)	

II. Intra-Category Comparisons

1. SES with Ethnic Origin Not tested for
2. IQ with Third Form Grades Significant

Table A.7

IQ with Third Form Grades

		Third Form Grades			Kendall's Tau B -.245 $p > .001$
		1	2	3	
IQ	1	24.0%(6)	20.0%(5)	56.0%(14)	
	2	43.4%(10)	34.8%(8)	21.7%(5)	
	3	40.0%(10)	44.0%(11)	16.0%(4)	

3. IQ with Class Steam Significant. High by definition (placement criterion).

4. Pupil-teacher affect with Teacher-pupil affect Not significant
5. Pupil-teacher affect with SES of proposed occupation Not significant
6. SES of proposed occupation with Fourth Form Grades Significant

Table A.8

SES of proposed occupation with
Fourth Form Grades

Fourth Form Grades					Kendall's Tau C .16 p > .03
		1-2	3-4	5-6	
SES of Proposed Occupation	1	35.0%(7)	66.0%(12)	5.0%(1)	
	2	13.6%(3)	72.7%(16)	13.6%(3)	
	3	31.4%(7)	47.6%(11)	21.0%(5)	

7. Teacher-pupil affect with SES of proposed occupation Significant

Table A.9

Teacher-pupil affect with
SES of proposed occupation

SES of proposed occupation					Kendall's Tau C = .411 p > 0.00
		1-2	3	4-5	
Teacher- pupil affect	1	5.0%(3)	33.3%(2)	16.7%(1)	
	2	66.6%(4)	33.3%(2)	(0)	
	3	26.4%(9)	20.5%(7)	53.1%(18)	

8. Pupil-teacher affect and SES Not significant

9. Teacher-Pupil Affect with
Fourth Form Grades

Significant

Table A.10

Teacher-Pupil Affect with
Fourth Form Grades

		Teacher-Pupil Affect		
		4-5	6-7	8-15
Fourth Form Grades	1	52.3%(11)	33.4%(7)	14.3%(3)
	2	9.9%(1)	23.0%(3)	69.2%(9)
	3	5.0%(1)	25.0%(5)	70.0%(14)

Kendall's Tau C
.47
p > 0.00

Within-stream comparisons were not tabled since their low N detracted from their validity and reliability.

III Reference Group Index comparisons with a measure of the Definition of the Situation; The pupil answers to Question 1 in the Reference Group Structure interview (see Appendix) were coded 1, 2, 3 for like, mix, dislike respectively. These enumerations were paired for each pupil with their Reference Group Index as follows:

Reference Group Index 1 - 3 with Definition Index 1

" " " 4 - 7 " " " 2 - 3

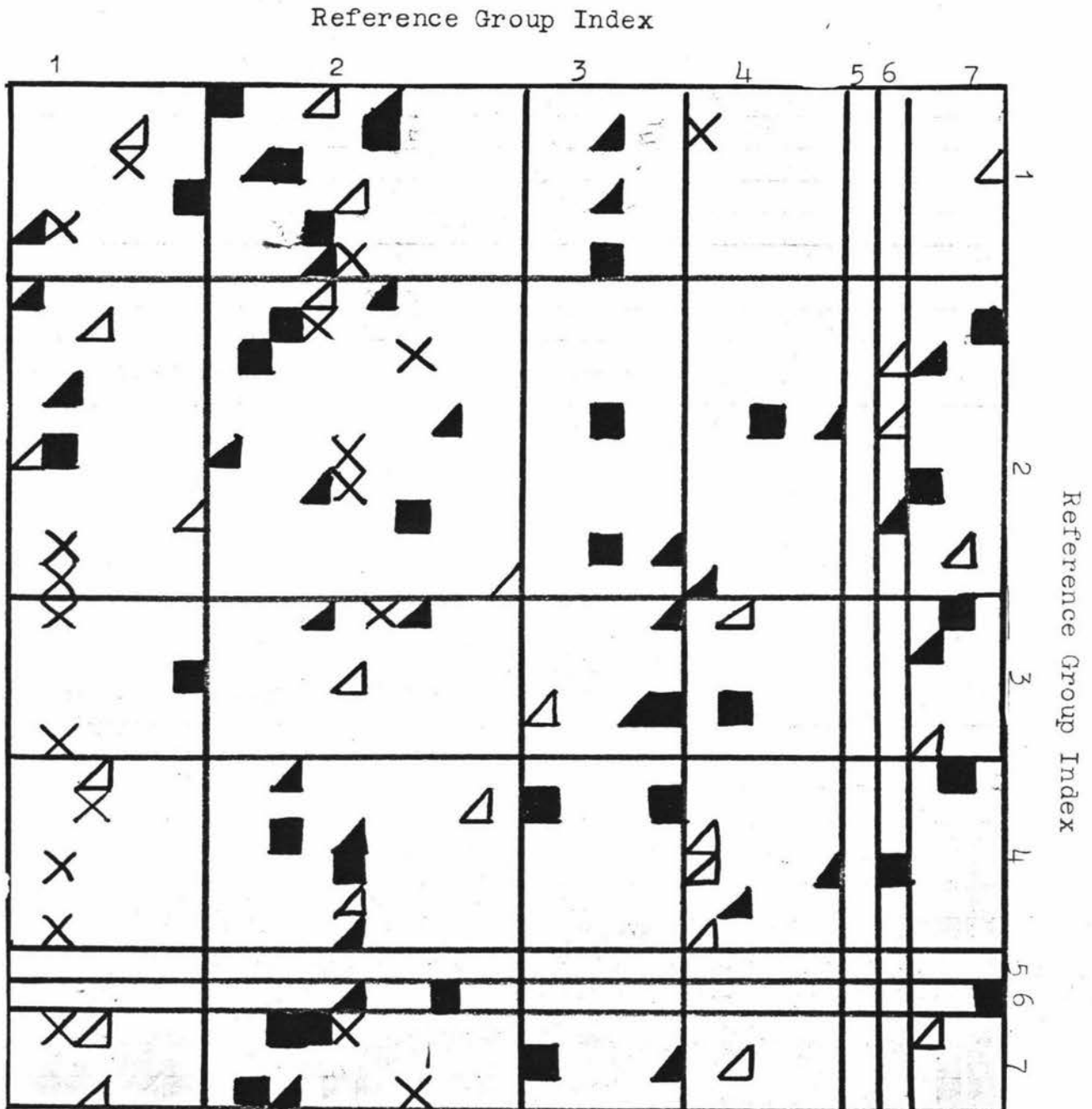
The Following Results were Obtained: Stream A 71% correlation
Stream B 52% correlation
Stream C 64% correlation

Interpretation: A case therefore exists for suggesting that Reference Group Orientation to Achievement as measured here and the Definition of the situation are moderately interrelated.

APPENDIX D

The Sociometry of Reference Group Orientation
to Achievement*

(1) Stream A



KEY: First Choice ■ Second Choice ▲ Third Choice ▽ Rejection Choice X

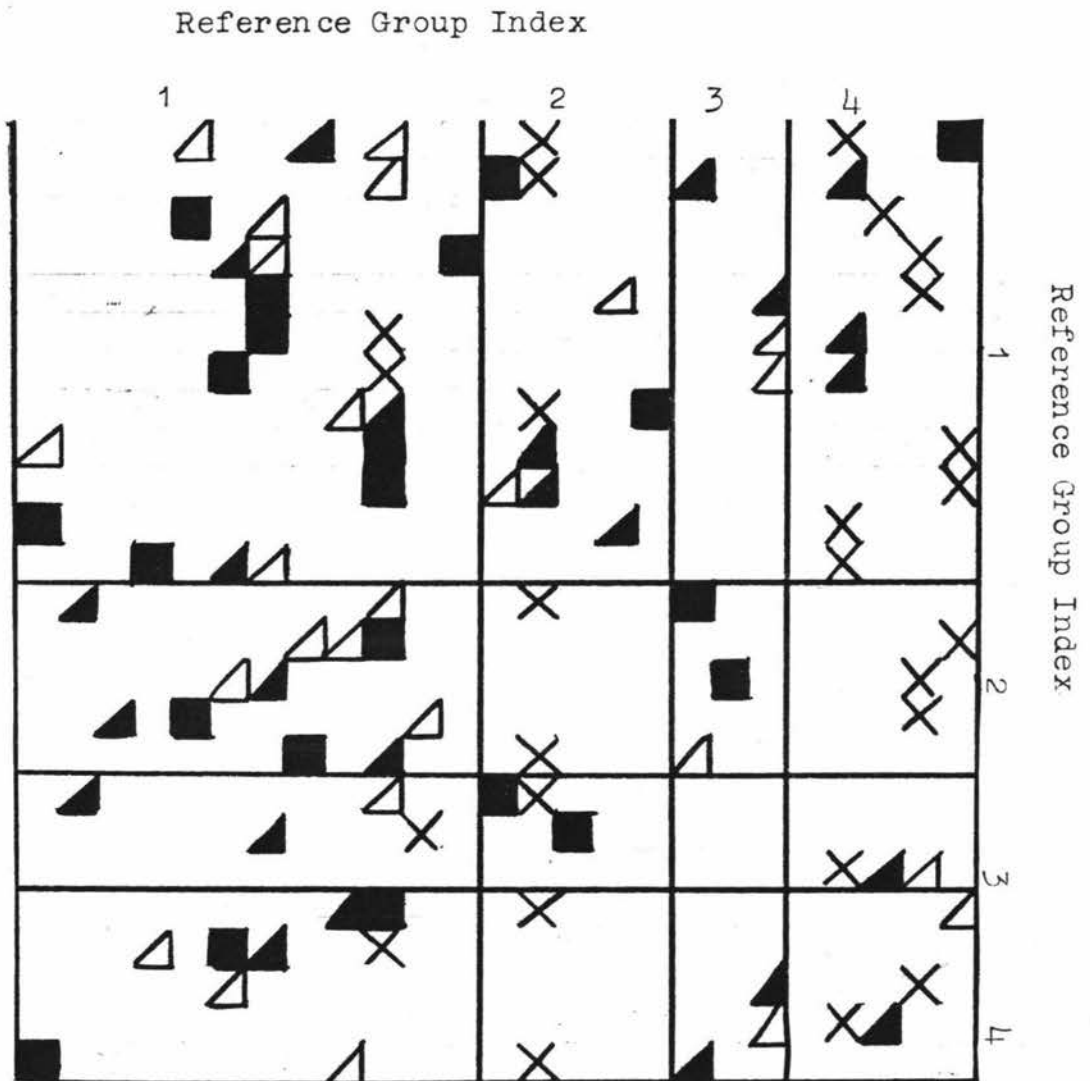
Interpretation

The Sociogram reveals no distinct pattern among the first three choices for Reference Group Orientation to Achievement. However the rejection choices tend to fall away from mutual Reference Group categories.

* Obtained from the Class Questionnaire

The Sociometry of Reference Group Orientation to Achievement

(2) Stream B

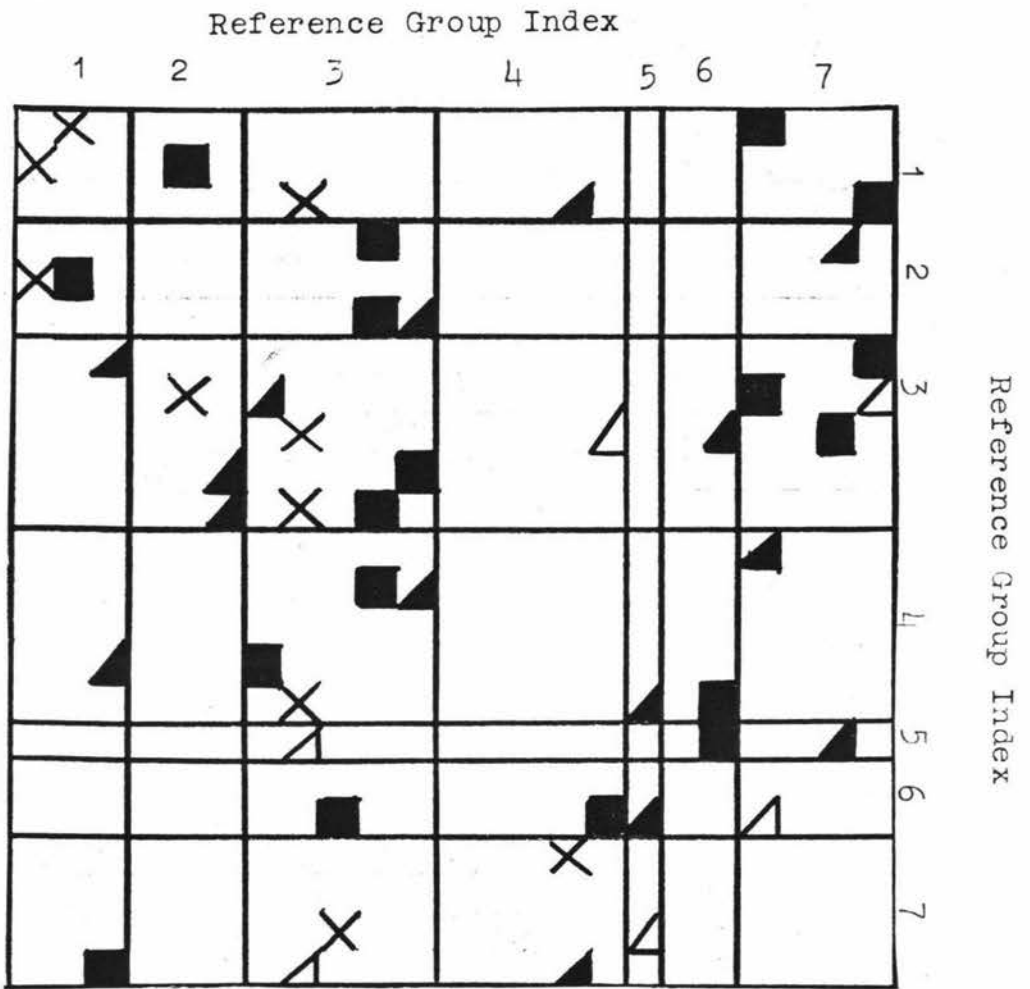


Interpretation

similar pattern to the Stream A case emerges with positive choices distributed randomly among Reference categories and rejection choices falling away from mutual categories.

The Sociometry of Reference Group Orientation to Achievement

(3) Stream C



Interpretation

The Stream C sample again follows the established pattern for Stream A and B. It seems that pupils may choose classmates as friends irrespective of their classmates Referent Structure; but that classmates they avoid are usually pupils with different Reference Structures.

APPENDIX E

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							25	
																								A	B	C	D	E	F	G	
1	2	1	1	129	5	5	4	5	1	1	1	1	2	2	4	2	11	05	9	8	1	1	1	1	1	1	1	1	2	3	
2	2	1	1	107	5	8	4	4	1	1	1	1	2	2	3	2	2	5	8	5	2	1	1	1	1	1	2	1	1	2	
3	2	1	2	106	4	8	7	4	2	1	1	1	3	1	3	1	5	2	8	8	7	1	1	1	1	1	1	1	1	1	
4	3	1	2	123	4	5	7	5	1	1	1	1	1	2	4	2	7	5	8	2	4	1	1	1	1	1	1	1	1	1	
5	3	1	2	111	5	8	9	7	2	2	1	4	1	2	4	1	11	8	11	11	5	1	1	1	1	2	2	2	2	7	
6	3	1	2	121	7	8	8	6	2	2	1	3	2	2	4	2	9	11	9	11	4	1	1	1	1	1	1	1	2	3	
7	3	1	1	116	10	5	5	5	2	2	1	3	1	2	4	1	14	7	11	8	4	2	1	1	1	2	1	2	2	7	
8	3	1	2	113	9	7	1	9	2	2	2	4	3	2	4	4	7	5	11	8	3	3	2	2	1	1	2	1	1	2	
9	3	1	2	132	5	2	2	4	1	1	1	4	2	2	3	2	2	5	4	8	7	2	1	1	1	1	1	1	1	1	
10	3	1	2	107	9	8	8	8	2	2	4	1	2	1	4	3	9	8	11	12	5	3	1	1	2	2	2	2	2	7	
11	3	1	2	114	9	9	7	6	2	2	1	3	1	2	3	2	8	8	11	11	3	1	1	1	1	2	1	1	1	2	
12	3	1	2	128	8	7	5	5	1	2	1	3	1	2	3	3	5	8	8	8	2	1	1	2	1	2	1	1	2	4	
13	3	2	2	000	0	0	0	0	2	2	1	3	1	2	3	1	11	8	11	11	3	1	2	2	1	1	2	1	2	4	
14	3	1	2	129	5	8	8	6	1	1	2	2	1	2	2	2	5	7	11	8	4	1	1	1	1	2	1	1	1	2	
15	3	1	2	128	4	5	5	5	1	2	1	1	2	3	2	2	5	7	8	5	1	1	1	1	1	1	1	1	2	3	
16	3	1	1	118	8	8	5	6	3	2	1	4	1	2	4	2	11	9	9	11	2	1	1	1	1	1	2	1	1	2	
17	4	1	2	106	4	2	5	4	1	1	1	1	1	2	3	2	5	5	7	7	3	2	1	1	2	1	2	1	1	2	
18	4	1	2	000	5	8	8	6	2	1	1	1	3	1	2	3	8	5	8	7	2	1	1	1	1	1	1	1	1	1	
19	4	1	2	115	11	11	8	7	2	2	2	4	1	2	4	1	11	9		14	4	2	1	1	1	1	2	1	1	2	
20	4	2	2	106	2	5	2	5	2	1	1	3	1	2	3	2	9	7	8	11	7	1	2	2	1	1	1	1	1	2	
21	4	4	1	126	7	5	4	4	1	1	1	1	1	2	3	1	8	5	5	9	1	1	1	1	1	2	1	1	2	4	
22	4	2	1	116	5	2	5	4	1	2	1	1	2	2	4	3	11	8	8	8	1	1	1	1	1	1	1	1	2	3	
23	4	1	1	105	8	5	5	5	2	1	1	4	2	2	3	3	11	5	8	8	4	1	1	1	1	1	1	1	2	3	
24	4	1	1	000	7	8	5	5	1	2	1	1	1	3	4	1	8	8	11	9	1	1	2	1	1	1	1	1	1	2	

KEY:

1. Case Number	6. English	} Third Form Grades	11. Teacher-pupil Affect (Soc.Stud.)	14. Pupil-teacher Affect (English)	17. Pupil-Teacher Affect (Science)
2. SES	7. Soc. Stud.		12. Teacher-pupil Affect (Maths)	15. Pupil-teacher Affect (Soc.Stud.)	18. English
3. Ethnic Origin	8. Maths		13. Teacher-pupil Affect (Science)	16. Pupil-teacher Affect (Maths)	19. Social Studies
4. Sex	9. Science				20. Maths
5. IQ	10. Teacher-pupil Affect (English)				21. Science

Fourth Form Grades

(Key continued on next page.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				25		
2	4	4	1	108	8	11	7	6	2	1	2	1	2	2	4	2	14	8	9	11	2	1	2	2	1	2	1	2	6
2	4	1	1	117	7	5	8	5	2	2	1	1	2	1	2	2	8	8	8	9	2	1	2	1	1	2	1	1	4
2	4	1	1	111	7	11	8	6	4	1	1	1	2	2	3	2	11	8	11	9	2	2	1	1	1	1	2	1	4
2	4	1	2	122	5	5	4	4	3	1	1	1	2	3	3	1	5	5	5	5	7	2	1	1	1	1	1	1	1
2	5	2	2	117	14	14	8	8	4	1	4	2	1	2	1	1	8	5	7	8	2	3	1	1	2	2	1	2	4
3	5	1	2	110	5	8	5	4	1	2	1	4	1	2	2	1	7	7	7	9	3	1	1	1	1	1	1	1	1
3	5	1	1	123	7	8	7	6	2	1	1	3	1	3	4	2	8	8	7	11	7	1	1	1	1	1	2	1	2
3	5	1	1	102	5	5	8	7	2	2	1	3	2	1	3	1	8	8	9	9	2	1	1	1	1	1	2	1	4
3	2	1	2	95	5	8	7	7	1	1	1	2	3	2	3	1	7	7	5	8	3	3	1	2	1	1	1	1	2
3	3	1	1	97	11	8	0	14	4	3	4	4	3	3	3	3	9	8	14	14	5	2	1	1	2	1	2	1	4
3	3	1	2	103	5	9	9	8	1	1	2	2	4	1	3	3	5	2	5	8	7	2	1	1	1	1	1	1	1
3	3	4	2	000	8	14	9	11	4	2	2	4	4	1	2	1	8	15	5	11	1	2	2	2	1	1	2	1	2
3	4	1	1	105	2	14	8	5	1	1	1	3	3	2	2	3	5	8	5	8	4	1	1	1	2	1	2	1	2
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4	4	1	1	000	9	9	9	8	2	2	1	3	2	1	2	2	8	8	8	8	4	1	1	1	1	1	1	1	1
4	4	1	1	101	11	9	5	5	3	1	3	2	2	3	3	4	8	8	11	8	4	2	1	1	2	1	1	1	2
4	4	1	1	110	5	4	5	2	1	1	1	1	2	2	1	2	7	6	5	2	3	1	1	1	1	1	1	1	1
4	4	1	1	95	8	11	11	9	3	1	2	3	2	2	3	3	8	8	8	8	5	2	1	1	1	1	1	1	1
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4	4	1	1	107	5	2	4	8	2	1	1	3	3	2	1	2	5	8	5	8	2	1	1	1	1	1	1	1	1
4	5	4	2	90	2	8	8	5	3	1	1	3	2	1	1	1	0	7	5	8	7	2	1	1	1	1	1	1	1
4	5	3	2	92	7	8	8	8	3	1	2	3	2	1	2	2	7	8	8	8	3	1	1	1	1	1	1	1	1

KEY: (Cont'd)

22. SES of proposed occupation
 23. Normative Affect

24. Reference Group Orientation:

A. Equity	E. Accommodator
B. Legitimater	F. Audience (Parents)
C. Role Model (Parents)	G. Audience (Friends)
D. Role Model (Friends)	

25. Reference Group Index

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				25		
4	5	1	2	87	8	6	9	11	4	2	2	3	3	1	3	3	7	11	8	8	5	2	1	1	1	1	1	2	3
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6	3	1	1	77	8	5	5	2	1	0		2	1	0	2	3	8	8	5	2	4	2	1	1	1	2	2	1	2
6	4	1	1	84	8	7	8	7	1	0	3	1	1	0	3	3	8	8	11	5	5	2	1	1	1	2	1	1	2
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