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AN APPRAISAL OF SEX-ROLE DEVELOPMENT IN NEW ZEALAND BOYS

A Dissertation
Presented to
the Faculty of Social Science,
Massey University
New Zealand

In Partial Fulfilment
of the Requirements for the Degree
Doctor of Philosophy

by

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NOTE :

Product-moment correlations and t-tests were the main statistical techniques used in this study. The analyses were run on the Massey University IBM 1620 Model 2 Computer using the programmes IBM Australia File No. 6.0.096 (t-test) and IBM Australia File No. 6.0.089 (correlations)

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CHAPTER I

INTRODUCTION

A growing literature attests to the importance of sex-role identification as a crucial component in the structuring of personality. Much has been written, too, concerning the significance of interpersonal relationships in the development of sex-role. Surprisingly, however, little has been done to examine the process of the acquisition of a sex-role identity in either males or females. Past research has been heavily committed to the study of parent effects on children's sex-role development at a variety of ages. The parent-affects-child paradigm is viewed, for present purposes, as conceptually threadbare, for within the numerous approaches which it has embraced, the influence - even the existence - of any model other than the parent has been consistently ignored.

The study is devoted to some aspects of sex-role development in a sample of New Zealand boys of primary school age i.e. between ages five and twelve. It breaks with the conventional; for it reports upon sex-role identification (a) in a familial context and (b) at three different age-levels.

The work is presented in three parts.

Part A deals with theoretical considerations which are relevant to the present study. Prior to an examination of sex-role identification, problems which arise from the diverse uses to which the term 'identification' is put are discussed. There is good reason for this ordering: identification is conceptualised as generic, sex-role identification as one of its derivatives. Although it is the derivative which is of primary concern in this study, discussion of the overarching concept cannot be precluded.

This is not to suggest that sex-role identification, as used within the behavioural sciences, is unambiguous. Terminological

confusion exists in many contexts. With it, difficulties may occur, on one hand, from the multiplicity of closely-related terms with which it may be confused, or, on the other hand, from usages which are loose rather than rigorously specified.

For present purposes, sex-role identification is viewed as a process rather than a product - i.e. it is a phenomenon in which change-over-time will be discernible. Chapter III is devoted to a discussion of the concept of development, for upon this rests the case for a study using subjects from three disparate age-levels or 'choice-points'. It is in this chapter that the case for a cross-sectional developmental study of sex-role phenomena is justified.

In Chapters V and VI a detailed review of previous research illustrates that earlier sex-role studies with children have not yet provided an adequate developmental conspectus. There has been little coordinated enquiry and the many differences in instrumentation, methodology, age of subjects and conceptualization have precluded finding coherent and developmentally-consistent explanations either of antecedent-consequent relationships or sex-role correlates. The extent of previous research and the variations within it are further illustrated in the table (Appendix III) which 'maps' relevant sex-role studies from 1946 to 1967.

A number of issues which must be borne in mind in studies of the present kind are discussed in Chapter IV. It must be recognized, for example, that a discipline employs a particular idiom and that this study, located within the expanding discipline of child development, is therefore bound by a specific terminology and conceptual framework. Too often this fact is neither appreciated nor understood.

As children grow and develop, they are in interaction, not only with parents, but with others. This simple fact is duly recognised by scholars and research workers whose primary focus has been the adolescent. But it is not recognised - or, at least, it is not explicitly stated - by those whose concern is children. Within the

family, for example, affections and hostilities which develop between members are important, for they colour the socio-emotional development of whomever they touch. These interactions have not been adequately explored. And, of the many studies in child development addressed to interpersonal relationships, there are very few addressed to the child's own view of his world.

This study offers such a phenomenological view, and in so doing, it departs from more conventional approaches. The fact that the present work parts company with custom, does not invalidate it. For the way the child sees his interactions within the family is held to be particularly appropriate for an investigation of this nature.

New Zealand's modus vivendi is believed to be masculine rather than feminine; that New Zealand clings to a style of life more suited to pioneer settlement than to industrialized, urban society is another regularly-heard contention. There are many such assertions as these. Reasons for them are generally attributed to the persistence of frontier-type values and attitudes and to particular characteristics which are believed to exist in New Zealand family life. Yet, evidence from which such assumptions might be legitimated is decidedly sparse. Chapter IV introduces some issues which indicate that, in New Zealand, the boy is placed in a different situation from the girl and that, unbeknown to 'the authorities', he is far more of a social and educational risk than the girl. This has never been considered hitherto. In addition, this particular chapter of the first part provides a brief review of issues pertaining to the child in his family.

Part B is concerned with the current investigation. Chapter VII opens with a discussion of methodological shortcomings in some research before the reasons underlying the research design in this study are presented. Reasons are advanced for the limitation of this present study to boys of three ages drawn from families of particular categories. The inclusion of sections on intelligence and socio-economic status are also justified.

Ten major hypotheses are incorporated in the section-by-section elaborations. Matters relating to the tests used, the test population and the data are included here. Items used in two of the tests, the Family Relations Test and the Play and Games List constitute part of the third appendix of the report, in which are included letters sent to parents.

Part C. In Part C the research findings for the principal sections: (i) parent-child (i.e. vertical) relationships; (ii) structural variables (i.e. birth order and sex-composition); (iii) sibling-sibling (i.e. horizontal) relationships; (iv) socio-economic status; (v) intelligence are given. Each is dealt with in turn. Discussion of the findings constitutes a major proportion of the final chapter.

Conclusion

The present research is exploratory. It departs from conventional techniques and, in so doing, may uncover features which would remain unrecognized were more orthodox methods employed. Interactions within the full configuration of the family are an extension of customary methods of determining the extent of sex-role identification which, previously, have not been considered. This study, concerned with the child's view rather than the adult's, asks the same questions of three groups of children at three different chronological ages. The intention, simply stated, is to explore a hitherto-unconsidered direction in the study of sex-role development. It is not the intention to attempt to provide a comprehensive account of sex-role development or identification in boys between the ages of five and twelve. It is recognized that such an account would fall well beyond the scope likely to be provided by research of the present nature.

CHAPTER II

IDENTIFICATION: THEORY IN SEARCH OF AN OPERATIONAL DEFINITION

"... as there are things left unnamed through lack of observation so likewise are there names which result from fantastic suppositions and to which nothing in reality corresponds."
 (Bacon, F. (1620) Instauratio Magna. Novum Organum)

Introduction

There is no novelty in a search for definition; definitions have played a significant part in the expansion of knowledge and enquiry, and in many explanations of human behaviour. A look backwards at the development of the vocabulary of psychology illustrates that the transference of terms from the vernacular has produced considerable ambiguity and vagueness. Such terms as 'unconscious', 'personality', 'goal', 'inhibition' and 'repression' have nevertheless continued to be used despite the breadth of interpretation accorded to them.

An exploration of the many usages to which the term identification is put reveals a mass of uncertainty. Within the broad spectrum of those social sciences in which the term is employed, there is no agreement, nor is any intradisciplinary agreement reached in such disciplines as child development or sociology. But this is not unusual: other concepts in use at the present time labour under the same kind of disability - a disability composed of generalisation and inter-relationship, springing from origins within the common tongue. 'Intelligence', 'instinct' and 'need' are examples of this. Precise, universally-acceptable definitions for such terms as these do not seem possible at the present time. And, identification can be included among them.

Identification has become a portmanteau-like concept. It is a term currently used in the literature of psychiatry, psychology,

sociology and anthropology. Because of this generality of usage, the question of arriving at a precise and particular meaning is fraught with difficulty. For this work, finding a satisfactory working definition of identification - the generic term - is important for three reasons. First, as used in the vernacular, the word has too great a flexibility; second, the widespread use of the term within the social sciences has produced a multiplicity of meanings; third, there is a need for consistency of interpretation within the present study.

The Term in Use

Freud

The term 'identification' was first used in a technical sense by Freud. He saw identification (1) as an unconscious process involved in sex and personality development, (2) as involved in the development of superego (i.e. conscience) in the child. Only the former need concern us here.

Freud said that identification was a developmental, three-phase process. In early childhood the first phase occurs. This he termed primary identification in which the child and his mother are fused into a single, undifferentiated object. In the second phase there is the development of a single object-choice referred to as anacitic identification or defensive identification, in which the boy¹ is motivated by fear that the father, with whom he is in competition for the love of the mother, will castrate him. In the third phase, his wish for the removal of his threatening competitive father is repressed. He experiences a love-hate ambivalence for the father and develops '... an identification of the ego with the abandoned object...' (Freud, 1925, p. 159). It is this identification with the mother in relation to the father which adds the component of femininity to his

1. Freud explained the process of identification only for the development of the boy, which accounts for the emphasis on the threatening father.

personality.

From the beginning, therefore, there is an expression of a negative mechanism at work. The boy sees himself in danger of being displaced from his mother's affections by his father. He recognises the greater power his father possesses, feels unable to counteract it, so aligns himself accordingly. Both McCandless and Bronfenbrenner have pointed to the common currency of this 'if-you-can't-beat-them-join-them' principle.

In this formulation, the incorporation of the father as a model is essentially an unconscious incorporation, but as was pointed out later, (Freud, 1933) this incorporation is not of the parent as he appears to the boy, but of an idealised model:

"The result is that the super-ego of this child is not really built upon the model of the parents, but on that of the parents' super-ego". (Freud, S.: 1933, p. 95)

The gratuitous manner in which Freud used the terms 'identification', 'introjection', and 'incorporation' established an early uncertainty and blurring of definition. The continuing modifications which Freud built into his theoretical writings contribute, in large part, to the dissatisfaction with the concept - or concepts of identification. Nash (1965) and Roger Brown (1965) have both indicated that Freud ran into difficulties particularly where he was concerned with the development of sexual identity. The use of the term 'identification' to deal with mourning, super-ego and sexual identity cause considerable confusion. Brown succinctly writes of this:

"Freud could have extricated himself from his theoretical bind if he had been willing to think of identification as being of two or more kinds involving two or more sorts of determinants". (Brown, R: 1965, p. 380)

Although ambiguities within the Freudian reference are now recognized, these, and other difficulties have been neither well reported nor clearly perceived. A brief glance at some of the literature since the nineteen-forties illustrates the variousness

with which the concept was handled. Knight (1940) for example, was concerned that

"... the phenomena ordinarily called identification are always based on a subtle interaction of both introjective and projective mechanisms." (Knight, 1940, p. 335)

Or to put it in another way, the term was too vague to be conceptually useful.

Balint

The mid-forties brought forward an interesting variant from the Freudian view. Balint (1945) used the word identification in a much wider sense than was customary. She saw identification as a direct derivative of narcissism and illustrated that the child came to know his world through a plurality of identifications. Initially, the child identifies with 'objects' - maybe even parts of his body - which facilitate the attainment of pleasure. This process, one of assimilation, is essential, writes Balint, if loving and understanding are to develop.

Although no formal definition is prescribed, Balint sees identification developmentally. A pre-school child may identify with animals as well as with his parents; a 'psychological emigration' from the parents appears as early as three. But the stormy and contradictory feelings associated with the climax of the Oedipus complex are replaced, at about the time of beginning school, with parental identification. Beyond this, the strength of identification with father (with whom the boy associates restriction and prohibition) and the mother (with whom he associates failure) are weakened. This diminution occurs either: (i) through the severity of educational pressures and prohibitions, in which case he

"... identifies with the commands and ... will look down with contemptuous condemnation upon parents and the whole adult society..." (Balint, 1945, p. 328)

or (ii) through too close an identification with his parents. In this case he will meet with the reproofs of society and, in consequence,

estrangle himself from them.

In this particular point of view, the admission of societal pressures which bear down on the child causing him to reorganize the close, binding ties with his parents, is a novel and promising variant.

Tolman and others

Tolman (1950), for his part, pointed out that there were three different processes:

"... (a) The process wherein an individual tries to copy - to take as his pattern or model - some other older (or in some other way looked-up-to or envied) individual. (b) The adherence of the individual to any group of which he feels himself a part. (c) The acceptance by an individual of a cause." (Tolman, 1943, pp. 141-142)

But even within the interpretation of identification as a process, another writer (Bronson, 1959) identifies two separate phenomena. One, described in different ways as 'ego-identification', 'tone identification', 'emotional identification' or 'developmental identification', indicates that the child wishes to be like the loved and admired model. In the other, described as 'imitation', 'behavioural identification', 'infantile identification' or 'defensive identification', no emotional ties are developed; the child behaves in ways which he believes will make him identical, in some magical way, with the model he imitates.

Here it is necessary to indicate the distinctions which can be drawn between three frequently-used concepts in social perception - empathy, imitation and identification. Marwell (1964) has written of 'operational traps' which are consequent upon failure to delineate meticulously. In calling for distinctions to be drawn he notes: (1) that empathy

"... is the imaginative transposing of oneself into the thinking, feeling or acting of another and so structuring the world as he does".

(ii) that imitation occurs when the response pattern is copied from the response pattern of the model, or approximates to it, without any real understanding of its significance;

(iii) that identification is

"... the modelling of oneself in thought, feeling or action after another person. (Symonds¹: 1946, p. 240)

Interpretative Difficulties

Multiplicity in interpretation has produced perplexity. It has even been suggested that the term should not be used at all. Sanford (1955), for example, has written:

"... a term that can be employed in so many different ways and that... has been accepted by most psychologists and sociologists could hardly mean anything very precise. It might be proposed, quite seriously, that we give up the term identification altogether..." (p. 107)

But this is an ill-thought suggestion. Much of the language of science, let alone of psychology, harbours the ailment of imprecision, upon which efforts by such psycho-linguists as Carnap (1937) and Quine (1950) have yet had relatively little effect; psychology possesses no acceptable and universal vocabulary. If all the statements and definitions which introduce 'now and less invariant concepts' (Handler and Kessen, 1958) had in the past been discarded, psychologists would have had to manage without such embracing terms as 'motivation', 'conditioning', 'repression'. Handler and Kessen point out:

"It might be useful for the scientist when faced with a vernacular word to consider the possibility that it does have such a family of meanings which interfere with invariant usage". (Handler, G. and Kessen, W.: 1958, p. 60)

This argument might well be intended to include the term identification, which, in recent years, has come to connote an area of enquiry. Since the 1950's interest in the concept of identification has quickened. Yet theory and research have come little closer to achieving consensus. Thus far, it has been noted that identification

1. Symonds (1946) drew no clear distinction between imitation and identification: "... identification takes place when one person copies another person. In this sense it is practically synonymous with imitation." (p. 318.)

has been interpreted as a process or a product; as a copying or modelling; as acceptance of a cause; as a reciprocal love relationship (i.e. Freud's primary identification). But other derivatives obtrude: identification as sympathy; altruism; vicarious living; submissiveness; conformity; positional identification in which behaviour corresponds to a known societal role and even as 'genital identification' (Balint, 1948). Nonetheless, the term continues to be employed in the conceptualisation of various aspects of personality development and in the proliferating special fields within the human sciences themselves. Bronfenbrenner (1960) believes that if the term were to be rejected and recast in more specific terms "... we would risk losing sight of an important psychological phenomenon as well as an intriguing theoretical issue" (p. 27). The acquiring of a total parental pattern and the powers which accompany it are seen by Bronfenbrenner as holding considerable promise for future study.

Winch (1962) finds the term 'helpful as an organising and sensitising concept' in which identification is believed to be 'the more or less lasting influence of one person or another.' (p. 2).

Over the last twenty-five years identification has held a prominent position in theories of socialisation and personality development. Its umbrella-like function has increased rather than diminished. At the present time it is more usual to add some qualifying description to indicate whether reference is being made to (a) qualities of the process (b) demands of the process or (c) actions or characteristics deriving from a particular person - man or woman, father or mother.

Theoretical Variants of the Freudian View

Difficulty in accepting Freud's position on identification has led to the development of a number of theoretical variants, some of which deserve special attention. Several writers have considered

identification within the framework of learning theory or the theory of social power. Within such accounts, the more positive desiderata of affection and warmth (Sears), status—envy (Whiting) and similarity (Stotland) have replaced the unconscious, fear-induced mechanisms which, Freud postulated, influenced the boy's identification with his father.

Mowrer

In one revision of the Freudian view, Mowrer (1950) elaborated a developmentally-based theory in which he suggests it is social power which facilitates identification. Mowrer takes little account of the Oedipal conflict and proposes a theory in which identification is a learned behaviour, differing, however, for boys and girls. The boy's initial identification is the same as the girl's but he must abandon the mother as his personal model and transfer his loyalties and ambitions to the father. This, Mowrer says, involves two things: '(1) being a man in the sense of being honorable, reliable, industrious, skilful, courageous, and courteous and (2) being a man in the sense of being masculine, i.e. sexually oriented toward members of the opposite sex.'

The inconsistency in Freud's use of imitation and identification is recognised by Mowrer. He suggests that the two are closely related and that difficulties in delineation have not been effected due to lack of clarity with identification as an operational concept. Mowrer's description of the development of identification is interesting: he indicates that children pass through a series of identifications in which 'social objects', are sequentially differentiated, first on the basis of age, later on the basis of sex.

Identification, as Mowrer sees it, can be classified into two types - developmental and defensive, in which the mechanisms at work are fundamentally the same:

"Developmental identification, we may suppose, is a milder and simpler experience than is defensive identification, which has a violent crisis-like nature. The one is powered mainly by biologically given drives ("fear of loss of love," in the analytic sense) and the other by socially inflicted discomforts ("castration fear" or, less dramatically, simply fear of punishment). The first presumably involves relatively little conflict; but in the latter case, conflict and attendant anxiety are outstanding. The distinction here made between developmental and defensive identification does not, of course, imply that events connected with the latter are not also "developmental." They may deserve to be regarded as such in a very profound and important sense. They, more than anything else, may cast the mold of character and set an enduring life style."

In developmental identification, however, the child attempts 'to reproduce bits of the behaviour of the longed-for parent' (p. 615) and includes much of what was formerly called imitation. In defensive identification, 'identification with the aggressor' is an attempt to resolve the conflicts produced through the disciplinary actions of the parents. It is the former which is adjudged by Mowrer as the more significant in sex-role development.

Sears

Sears (1957) has attempted to provide a theoretical account of the development of identification in which the child's behaviour illustrates the basic principles of learning. For the learning theorist three essential conditions must be met:

1. The child must be motivated.
2. He must respond.
3. His emotions must be reinforced.

From the second year, children begin to pattern their behaviour on those around them; they unconsciously absorb many of the actions, interests and attitudes of those close to them. Three main kinds of learning occur in their complex social and emotional behaviour. (a) trial-and-error learning (b) from direct tuition (c) from role practice.

Sears rejects purely imitative behaviour as being important in identification. Unless the imitative action is gratifying and is

reinforced, imitation will not become habitual. Satisfactions derived from such things as acting like mother become part of a secondary motivational system. This, as Sears describes it, seems to be almost a rapprochement with Freud's theory of anaclitic identification. Sears, together with his co-authors (1957) dismisses the possibility of social learning through trial-and-error behaviour and emphasises the significance of pleasurable experiences as a motive for role-practice:

"Identification is the name we choose to give to whatever process occurs when the child adopts the method of role-practice, i.e. acts as though he were occupying another person's role."
(Sears, et.al.; 1957, p. 370)

The positive role of the mother in the development of identification is an important feature of the Sears position. He indicates that 'the degree of identification of the child with the mother should bear a curvilinear relationship to the amount of nurture the mother gives.'
(Sears; 1957, p. 155)

Sears point out that occasional mother-absence is necessary to allow practice in performing the role of the mother. In this characteristic, Sears' view is not completely at odds with Mowrer's notion of developmental identification. But one significant variant from the Mowrer position is Sears' contention that children identify in a quasi-global fashion - i.e. they attempt to reproduce most of the parental behaviours. Mowrer, as it is recalled, writes of the reproduction of 'bits of the beloved and longed-for parent;' Sears writes of:

"absorption of these characteristics without specific training, either by direct guidance or by reward and punishment, that leads to the hypothesis of a process (identification) that short-cuts the direct training process. It is as if the child had learned a general principle "to be like my father and mother". "
(Sears: 1957, p. 152)

Sears, in his attempt to develop this concept as in the theory of learning, has developed a formulation initiating a great deal of research. One of the major effects identification appears to have

within this theory is that of sex-typing. The development of sex-appropriate characteristics reflects the child's desire to recover and reconstruct the temporary absent and nurturant model by role-playing.

This revision of the Freudian view has provided a rich and charitable view of the process of identification. Sears, too, believes identification is a useful concept and favours its retention in the study of children.

Parsons

Talcott Parsons writes as a sociologist whose explanations of identification take him beyond the immediacies of child-parent identification into the wider influences of the community. Like Mowrer, Parsons sees the child as passing through a series of identifications in which there is a progressive differentiation of role-relationships. Further, Parsons believes that cognitive as well as motivational elements obtrude in this development.

Parsons is critical of Freud's scattered references to identification and finds that Freud failed to provide any systematic analysis of the structure of social relationships in which the process of socialisation takes place. He gives other reasons for dissatisfaction; he takes issue with Freud's failure to recognise that identification for the child included not only parental super-ego, but cognitive and expressive elements as well (Parsons, 1964).

In addition, he argues that the process which allows the boy to identify with his father and the girl with her mother, is not entirely biological. He postulates that this is a learned phenomenon and one which links the determination of sexuality with that of role-structure in our kind of social system.

What then, does Parsons offer? Central to the development of his theory is the notion of the differential functions of mother and father. These he labels the 'expressive' and the 'instrumental' roles respectively. The expressive role involves the mother in affectionate,

warm, solicitous, emotional relationships with the children; in this role she serves as mediator and family conciliator - a function analogous to the nurturing mother function described by Freud. The instrumental role, ascribed to the father, is concerned with the manipulation of the environment and adaptation. Although these paternal functions are viewed as containing elements of discipline and control, the hostile, harsh, punitive father is not apparent in Parsonian theory.

Parsons' notion that identifications recur in series is significant - not only because the proposition is developed within a Freudian framework of oral, Oedipal and post-Oedipal stages - but because in it are incorporated: (i) the concept of developmental shifts and (ii) identifications as learned phenomena. The Parsonian developmental theory of identification is worth examining within this search for an operational definition.

(i) Identification in the Oral Stage. Identification develops out of the organic gratifications a mother affords her child. The mother becomes a role-person and the child learns to perform a social role in interaction with her. Parsons sees mother and child as a collectivity in which roles and the norms defining the expectations of each of them are sharply differentiated. Within this relationship, the child learns to incorporate the values of the collectivity; to be like, but not identical to the other members of it. For Parsons, this development is 'primary identification' (Parsons: 1964, p. 92). But it is a different primary identification from that indicated by Freud; in Freud's explanation, the relationship which existed between mother and child was diffuse and symbolic. In Parsonian theory, the basic skills of walking and talking are developed in the pre-Oedipal stage; the learning of these achievements allows the mother to reward performance rather than conformity as she did in the child's infancy. Thus, in the eyes of the child, there will be a change in his mother's role as well as a change in his own.

(ii) Identification in the Oedipal Stage. Greater mobility and greater facility in communication enable the child to see his mother performing a diversity of roles. She becomes, not only his mother and his own love-object, but the mother and love-object of his brothers and sisters and the wife of his father. The other family members are perceived as the interlopers who disrupt her exclusive devotion to him. So, within the nuclear family, a new phase in the process of identification develops. This is explained by Parsons (see 1964, p. 95) as a much more complex process than the original identification with the mother since it involves at least three partially independent but interdependent identifications: (i) with the family as a collectivity, (ii) by sex, (iii) by generation.

Within the family, therefore, identification changes; the child's status alters and he becomes a member of the wider family collectivity. He comes to be 'like the family' - the new identification object - in much the same way as he became 'like' the mother in the earlier pre-Oedipal stage.

Of importance here is the disruption in the boy's tie with his mother. Attachment to her is broken by social disapproval, which Parsons describes - perhaps as a gesture of appeasement to neo-Freudians - as an incest taboo. Neither can the boy develop the kind of relationship with his mother which his father has; what Parsons describes as 'prohibitions of generation' intervene. Like Mowrer, he believed Freud was incorrect in his assertion that greater difficulties exist for girls in the resolution of the situation. The boy practises the more obvious, accessible masculine roles such as fisherman or soldier; he plays with trains, cars and aeroplanes. But in his play he is far from replicating his father's role. The remoteness of many middle-class occupations, their complexity and the fact that many do not clearly depict masculinity prevent the urban middle-class boy from emulating his father in the same way as the girl does her mother.

Moreover the exclusiveness and solidarity of the mother-father

relationship serves not only to illustrate the importance of sex as conferring inter-personal status, but forces him, albeit through exclusion, into relationships with other members of the family. The establishing of the masculine role is accomplished only if boys are able to effect "the proper set of transitions between the intrafamilial context of early socialisation and the larger societal context.

(Parsons: 1964, p. 98)

(111) Post-Oedipal Identification. In the earlier stages, the choice of 'objects' with which the child identifies involves erotic attachments to primary personal objects. These attachments are essential for the internalisation of social values. Post-Oedipal identifications, on the other hand, do not require this. In the period of latency, the family retains its protective function, but objects chosen for identification lie beyond it. Within the school and the peer-group, identifications are developed on the basis of age and sex. With regard to age, both intellectual and athletic competition with same-sex peers will determine the kinds of social groups in which a boy will participate. He will be afforded opportunities to develop and practise a wide variety of roles in both supervised and informal situations. With regard to sex there is opportunity to practise sex-role in relative isolation from the opposite sex. Once cross-sex interests intervene, a further differentiation, in which there is a revival of erotic interests, takes place.

The account which Parsons gives of identification is novel. It is one of the few coherent attempts to provide an explanation of identification from birth to maturity; it admits a developmental complexity in human relationships; it implies ontogenetic change in both parents and children; it places the concept of identification within a societal and cultural context. Though Parsons' formulations have been censured for their 'protean ambiguity and pretentiousness' (Bronfenbrenner: 1961), it is noteworthy that the criticism refers only

to those essays which appeared prior to 1956, particularly as the most relevant discussion, available in 1958, appeared two years before vigorous reproof was offered.

Johnson

An interesting derivative (Johnson, 1963) of the instrumental-expressive distinction formulates a theoretical case in which sex-role identification is dependent upon parental role-differentiation. The development of sex-appropriate behaviour, as Johnson has it, depends on the internalization of a reciprocal role relationship with the father by both boys and girls. Central to this view is the notion that males possess instrumental and expressive components of personality (vide Parsons), whereas females possess only one - i.e. expressivity. Both sexes must break clear of their infantile love-dependency on the mother. Boys absorb expressivity from their mothers during the period of oedipal dependency, but must learn 'instrumentalness' to be capable of acting effectively outside the family environment. Girls, on the other hand, must shift their expressive attachment from the mother to an adult male; the demand for them therefore, is for a more mature form of attachment; but it is a form which remains expressive.

Johnson refers to research studies (Brodbeck, 1954), Goodenough, (1957), (Sears, 1951), (Emmerich, 1959) in support of the basic premise that the father differentiates his role toward the opposite-sex children whilst the mother does not. The view, if it assists in directing research beyond the customary one-parent:one-child paradigm is worthwhile.

Kagan

In the same year as Parsons' major account appeared, Kagan produced an analysis which centred on the motives underlying identification. In this, identification is defined as "an acquired cognitive response within a person." (Kagan, 1958, p. 298). Kagan

examines the process of identification and finds there are four types of phenomena which produce behavioural similarities between subject and model: (a) imitation learning which he labels 'matched-dependent behaviour'; (b) prohibition learning in which the adoption of prohibited parent-activities leads to similarity; (c) identification with the aggressor, in which behaviours similar to those of a threatening or aggressive model are adopted; (d) vicarious affective experience in which a person's positive or negative affect results from an event which has occurred, not to the person himself, but to his model.

Although the emphasis is on the relationship between parent and child, Kagan postulates that the individual can identify with a variety of models. What is not clear is how much significance is placed on models who are available outside of the family. The reasons for modelling, as Kagan sees them, are (a) for mastery over the environment and (b) for love or affection. The needs for love and power, which are stronger in the young child, will predispose him to identify more closely with his chosen model; constancy of contact is a further factor which will intensify the identification.

Kagan's explanation rejects the notion that identification is a global phenomenon. As he sees it, this is no consciously-initiated process, but one in which an identification may develop without a child's being aware of it. He recognizes the complex nature of the process and suggests that mere similarities in overt behaviour are poor indicators of it.

Towards an Operational Definition. From the inception of the term, meaning has been obscured by a wide variety of usage. Sigmund Freud who introduced it saw identification either (i) as a process in which internal and environmental forces cause the child to 'take on' characteristics of his parent, or (ii) as an end result of the process in which similarity is fait accompli or (iii) as a motive. Moreover, his use of introjection and incorporation of synonyms for identification did little to add initial clarity to the concept.

Since the time of Freud research and theory building relating to identification has increased considerably. Although no unanimity has been achieved, this is not to suggest that the concept is no longer valuable. If identification can be viewed as an area of inquiry, as a synthesizing concept, it can remain useful within the variety of disciplines in which it is employed. Within this context, there may be found some interdisciplinary consensus. Identification might come to be viewed as a construct which professes loyalty to no one discipline. If, severally, it has operational value for the sociologist, the anthropologist, the psychiatrist, the child psychologist and the social psychologist then, it might be argued, it should continue to be used by them all. But, it should be stressed, always with suitable description and qualification.

At this present stage, it becomes emphatically clear that no universally acceptable definition has been written; nor have there been any attempts which aspire to multidisciplinary agreement. Bronfenbrenner (1960) has protested against the proliferation and development of inadequately-explained theories. He indicates that some agreement has been reached that there are three classes of phenomena (a) identification as behaviour (b) identification as motive (c) identification as process - a phenomenological explanation not too far removed from the various explanations which can be discerned in Freud's own writings.

For the purposes of this study identification is to be viewed as a process which may be partial or global, conscious or unconscious and which involves interpersonal relationships. And an acceptable definition, deriving from the foregoing is: "Identification is that process in which the child thinks, feels, acts or becomes like some significant person or persons with whom he is in regular or intermittent contact."

Sex-Role Identification

In this ensuing study identification is viewed as a generic

term; subsumed under it is 'sex-role identification'.¹ In this too, difficulty in delineation has been experienced by many writers. In part the problem is exacerbated by the multiplicity of related terms in use - sex-role identity, sex-role identification, sex-role preference, sex-role orientation. For the other part confusion derives from theoretical ambiguity. The assumption in Freudian and Adlerian theory is that the acquisition of a sex-congruent role is a more difficult task for the girl; more recent theorists (Parsons, 1942), (Gorer, 1948) have postulated that it is the boy's task which is the more difficult.

Distinction needs to be made, however, between connotations, particularly when, in the past, terms have tended to be used imprecisely and interchangeably. Lynn (1959) provided the first conceptually-clear distinction between the main terms which are relevant to this present study. ~~He~~ differentiated between sex-role preference, sex-role adoption and sex-role identification.² Sex-role preference refers to the desire for the adoption of behaviour associated with one sex or the other, or the perception of such behaviour as preferable or more desirable. Sex-role adoption refers to the adoption of behaviour characteristic of a given sex. Sex-role identification - a more complex process - refers to the incorporation of the role of a given sex.

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1. Rau (1960) writes of four main consequences of identification: (a) the development of internal controls over impulses (b) manifestation or experiencing of guilt after transgression (c) role-practice of adult or adult-like behaviour (especially in fantasy) (d) sex-typing of behaviour. Rau views sex-typing as involving processes distinct from the basic process of identification, but linked to it.
 2. A distinction had earlier been drawn (Brown, 1956) between sex-role preference and sex-role identification.

In a more recent paper, Lynn (1962) adopts the Parsons-Gorer view (above) and postulates that the process of sex-role identification requires a separate kind of learning for each of the sexes. In simple terms, the girl's task is mother-identification, the boy's task is male-identification¹; the girl 'learns her mother', as Lynn would have it, the boy 'learns the male stereotype.'

The distinction drawn by Lynn is important. Pressures - implicit² and explicit - impel the boy toward sex-congruent behaviour. The strengths of these pressures differ from situation to situation; some are familial, some extrafamilial. But little is known concerning their influence in sex-role development. Within the context to be encompassed by this present work, the conceptual distinctions drawn by Lynn are relevant and important. Equally important is the view on sex-differentiated sex-role learning, for it provides a theoretical base from which this inquiry into the development of masculine characteristics can be undertaken.

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1. There is some similarity between this distinction and the personal identification/positional identification formulation (Slater, 1961). Slater, however, is not directly concerned with sex-role.
 2. An example of implicit pressure impelling the boy towards sex-congruent behaviour appears in a beginning reader used in New Zealand schools:
 - "Come into school boys and girls"
 - "Look at the girls. They are quiet. I like the girls"
 - "The boys are naughty today, Mr. Headmaster," said Ann. "They are not quiet like the girls. They shouted and shouted."
 - "Boys are not naughty with the headmaster," said Martin. "They are quiet like this." Randell, B.: Ann is a Teacher (Kea Press).

CHAPTER III

THE FORMULATION OF A DEVELOPMENTAL POSITION

"Let the order of ideas be the same as the order of things"
 (E. Brunswik, 1951)

Introduction

Development is a term first used by the biologist; it was concerned with 'physically observable growth in size or structure in an organism over a period of time.' (Haier, 1965, p. 3) The term, now carried over to the psychosocial sciences, has lost its exclusively-biological connotation. It is used synonymously with 'growth'; it is confused with 'maturation'; it is an alternative to 'change'.

Development has become a multifaceted term complicated still further by such variations and semantic additions as 'ages', 'stages', 'unity-in-continuity', 'continuity-in-transformation', 'morphogenesis', 'orthogenesis', 'differentiation', and 'hierarchical integration'. In most instances, these terms are used in specific theoretical contexts, but in others, they are used with considerable flexibility. Consideration will be given to some developmental views which have particular relevance for the present investigation.

Some Relevant Views on Development

Even when examined within the relatively restricted area of psychology, it quickly becomes apparent that development, as a concept, is variously used.

Psychoanalytic Theory. From psycho-analytic theory there evolved the notion of 'phases' of psychosexual development in which dominances occur at specific points in the developmental cycle. Thus, in the first year, oral dominance is uppermost; from one to three, anal dominance; from three to five phallic dominance. Five to twelve marks the subdued phase of latency and following this is the genital

phase of adult sexuality. In this formulation, the son's shift of identification from mother to father occurs as a culminating incident of the phase of phallic dominance. This shift, contrived as a 'defensive identification' (Mowrer, 1950) allows the son to return, though vicariously, the love and affection of his mother.

Parsons. One interpretation (Parsons, 1955) of Freud's psychosexual 'phases' of development suggests that the phases are periods of relative stability and integration, interrupted by crises of transition. These are coped with and used creatively before the next (i.e. higher) phase of development is reached. For Parsons four phases: oral dependency (mother-child identity), love attachment (parent-self object discrimination), latency (four-object family role system) and maturity (adult genitality) are broken across by an oral crisis, an anal phase, an oedipal phase and adolescence.

Parsons, in this adaptation of the Freudian explication, supports a view of sequential differentiation in which four phases - permissiveness, support, reciprocity and manipulation of reward provide the foundations for a developmentally-oriented theory of identification. Reorganization is demanded in this process and the discontinuities which arise from it are essential for the effective integration of a system of social relationships. And sequential differentiation, as Parsons has it, is 'not a linear process of continuous increase' (1955, p. 29) but '... a more-or-less self-enclosed phase-pattern..' (1955, p. 41) which is repeated at each reorganizational phase of a developmental spiral. Although Parsons, in all his writings, reiterates that the child identifies through reciprocal role relationships which serve adequately - and differently - at particular ages, it was not until recently (1964) that he elaborated upon the variables of sex and age as being the most significant factors in the development of social function.

Gesell. Other positions, too, have been taken. Gesell, writing in the 1940's stated that psychological growth produces a

progressive organisation of behavioural form. This organisation of phenomena within the developing organism facilitates the appreciation of the broad developmental sweep, simplifies it, and generalises what Gesell has described as 'form phenomena'. He writes:

"Psychological growth, like somatic growth, is a morphogenetic process. It produces a progressive organisation of behavior forms. Our scientific knowledge of this process is still very meagre. We lack the grammar and the lexicon for defined form characteristics. We need morphographic as well as mathematical methods which will simplify and generalise form phenomena" (Gesell, 1947, p. 298).

And as in other 'stage' theories of development (e.g. Freud, Parsons, Erikson), Gesell suggests that development is typified through '... a single, universal sequence of personality stages...' (Kohlberg and Zigler, 1966) in which behaviour, at any one point in the sequence, is predictable in terms of the knowledge of what has gone before.

Werner. A particularly significant contribution to developmental psychology is the 'levels of organisation' interpretation which has come from Heinz Werner (1948, 1957). For Werner, the essence of organic development is '... the steadily increasing differentiation and centralization or hierarchic integration within the genetic totality...' (1948, p.53). Development, in Werner's view, is a creative process¹ in which each higher level is a new entity and an innovation. Werner postulates one major regulating principle - the orthogenetic principle which states that 'wherever development occurs it proceeds from a state of relative globality and lack of differentiation to a state of increasing differentiation, articulation and hierarchic integration...' (Werner, 1957, p. 126).

Werner, sensitive to the inadequacies of language which have already been alluded to, sees that, ideally, development is a continuous process. His thoughts on both the limitations of language and continuity in development come through clearly in the following:

"... development cannot be comprehended without the polar conceptualization of continuity and discontinuity. Within the 'universe of

1. Although Parsons (see previous page) makes no reference to Werner's views, the notion of the creativity of development is strikingly similar.

discourse' in which the orthogenetic law is conceived, development insofar as it is defined as increase in differentiation and hierarchisation is, ideally, continuous. Underlying the increase in differentiation and integration are the forms and processes which undergo two main kinds of changes: (a) quantitative changes which are either gradual or abrupt, and (b) qualitative changes which, by their very nature, are discontinuous." (Werner, H.: 1957, p. 137).

The particular relevance of Werner's explication in the present formulation is that within the very general laws enunciated, examples are interposed of the manner in which the development of the child is transformed from a non-articulated undifferentiatedness towards a state of increasing differentiation and hierarchic integration.

Sears. A rather different position is taken by Sears who sympathises with what is described as the 'unity-in-continuity view'. In his elaboration of this position, Sears (1957) dismisses, for the present anyway, the prospect of a too-precise measurement of developmental change. He believes that any new system must deal with the person-as-a-whole before there can be any differentiation between the various parts of his behaviour; and mere enumeration of the many aspects of developmental change is not enough. Sears writes:

"... the basic requirement is that the actions or systems be specified as those which the person-as-a-whole performs in the process of interacting with the environment - human or non-human - in which he lives and grows". (Sears, R.R.: 1957, p. 150)

Sears' view, because of his work on sex-role identification within the general social-learning framework, is pertinent here.

Piaget. There is no doubt that Jean Piaget has generated the greatest interest in developmental psychology in the past decade or more. Although primarily concerned with the development of logical-mathematical thought, Piaget's concept of stages of development is immediately relevant to the present formulation. With some similarity to Gesell's postulation, Piaget has produced a developmental theory of recurring phase-sequences which are underpinned by an equilibrium-disequilibrium principle. Equilibrium as Piaget sees it, is a stable

state but not a state of rest; it is a system of interaction, not a state of inactivity.

This view of 'stages' rests somewhere between the two extreme forms of explanation best described as 'continuity-in-process' and 'stages in functioning' (Lawrence, 1959). Gesell and Piaget, in this sense, have something in common, but while Gesell is concerned to describe behavioural characteristics at each 'stage' or 'level' (Gesell, 1940, 1947, Gesell and Ilg, 1943), Piaget offers an explanation of stages of development by showing how basic mechanisms are re-enacted and modified at different developmental levels.

Piaget (1960) postulates that the minimum requirement for the recognition of 'stages' is a constant order of succession. From any hypothesised stage in which tasks are successfully accomplished, a further, more advanced developmental stage will arise. As each stage is achieved, it should be possible to observe an increase in the behaviour typical of that stage. This increase, one might speculate, is only a quantitative element. Piaget, it is conceded, was speaking specifically of the development of mental structures, for he has held his interests more firmly to the intellectual life of the child than to the behavioural.

But earlier, his colleague Inhelder (1956) stated three criteria for the existence of stages:

1. "The stages of development are defined by structured wholes and not by any isolated pieces of behaviour".
2. "The passage from an inferior stage to a superior stage is equivalent to an integration: the inferior becomes part of a superior."
3. "The order of succession of stages is constant but the age at which the structures appear is relative to the environment, which can either provoke or impede their appearance".

(see Freyberg, 1964, p. 9).

This is not intended as any criticism of Piaget's conceptualisation of 'stages' in which the developmental shifts are quite dramatic. Tanner

(1960, p. 124) has put the position with abundant clarity. He indicates that at the cellular level, growth is in some respects discontinuous, but that macroscopically, growth may appear ~~more or~~ less continuous, depending on the fineness or coarseness of the instruments which are used for measuring. In examining the view held by Piaget and Inhelder (1956, 1960), it seems that the order of the 'stages' of development is invariable; that no stage can be omitted; that success in reaching stages depend on what has gone before. 'One can speak of stages of development', they assert, 'to the extent that these conditions are met'. The sequence of events is determined, as Piaget says, by 'an inner logic which no one has yet succeeded in fully capturing.'

It is patently clear, therefore, that any attempted reconciliation of views dealing respectively with microscopic and macroscopic phenomena would be fruitless in the present enquiry. Vinacke (Freyborg, 1964, p. 7), in support of Tanner argues that where any changes occur within contiguous stages, they are not sufficiently extensive to justify the implied sharpnesses of change from stage to stage. In spite of such difficulties of delineation, however, it would be a gross mistake to reject the notion of developmental stages out-of-hand; it is still a useful artifice for the delineation of child behaviour.

A Developmental Perspective on Sex-Role Identification

It is suggested that changes in identification, both qualitative and quantitative, are encompassed by Gesell's view on the ontogenesis of human development, and within the schemata¹ of Piaget which though referring particularly to intellectual development, deserve consideration in the present context. Developmental values do not, as Kagan (1963)

1. "A schema is a mode of action, elaborated by the subject, a mode of action capable of conservation or transformation by generalisation and of coordination with other schemata." Inhelder, B. and Matalon, B.: 'The Study of Problem-Solving and Thinking in Mussen, P.H. (ed.) Handbook of Research Methods in Child Development (Wiley, 1963)

emphasises, 'drift from negligible strength to intense values in different situations or over a period of time.' So here there may be a fundamental point of difference between the reported research findings of the comparative psychologists Harlow, Hess, Scott, Kuo and Lorenz, who have been examining critical periods and 'imprinting' in infrahuman species, and those more concerned with human beings. The critical periods hypothesis asserts that these are stages of limited duration: there may be a finite period during which certain experiences must occur if they are to become part of a repertoire of responses. On the other hand, there may be a period of increased efficiency for the acquisition of experience, before which it cannot be assimilated and after which the level of receptivity remains constant. The notion of critical periods, though at first glance supererogatory in a study of the development of sex-role identification, does have relevance. Kagan (1963) for example, in writing of continuities of sex-role behaviour has said '... if we knew when early manifestations of these behaviours could be regarded as a reliable clue to the future we could justifiably begin preventive measures,' (p. 32) and Winch (1962), in dealing with parental identification has raised the question '... whether or not failure to identify at some critical period with the parent of the same sex implies lifelong failure to make the appropriate sex-role identification' (p. 102). Clearly the concept of critical periods cannot be lightly dismissed.

It is somewhat surprising to find that Piaget's name is associated with this phenomenon. Palmer (1961) has remarked that '... Lorenz, Spitz and Piaget have observed phenomena which suggest that there may be critical periods in the development of the child-points or stages during which the organism is maximally receptive to specific stimuli...' Yet the only works in which critical periods in children have been examined are those of the 'deprivationists', about whom so much has been written, and a small group (Maney, Hampson

Hampson) concerned with genital ambiguity.

The 'deprivationists' (Bowlby, 1953), (Spitz, 1946), (Aubry, 1955) believe that there is a critical period between 6 months and 5 years during which the foundations of social behaviour are laid; it may yet be proven that IRM's (innate releaser mechanisms) are significant in triggering off primitive mechanisms in the earliest stage of human life. Although considerable doubt has been cast upon the Bowlby thesis in recent years¹ the notion of critical periods is persistent and tantalising. It may have a heavy bearing on the acquisition and development of sex-role identification.

In the other research which raises the question of critical periods, some speculation about the issue of critical periods in the establishment of gender role is encountered (Money, Hampson and Hampson, 1957), (Hampson, 1965). Although this is dismissed in rather summary fashion (Beach, 1965) - because of lack of evidence in mammalian research - it is unfortunate that he (Beach) apparently equates imprinting with critical periods. Kohlberg (1966) (p. 87) points out very clearly that the Money-Hampson usage is not a genuine (i.e. ethological) use of the term. It does not result from exposure to a particular object; it does not result from the usual social reinforcement mechanisms which are reversible - and imprinting, in the Money-Hampson context, is irreversible. For Kohlberg, this concept of critical ~~age~~ periods would be acceptable if described as 'the fixation of an abstract self-concept or identity' (1967), cognitively stabilised in the pre-school years. This view is in concord with that expressed by Palmer (1961) who remarks: 'The suggestion that critical periods may be less fixed in time as the subjects studies ascend the phylogenetic scale should make the child psychologists cautious about prematurely applying concepts such as imprinting to human behaviour.' The point is well taken.

1. Two particularly good reviews of research on maternal deprivation are found in Casler (1961) and Wootton (1959).

Not only do many developmental theorists expect behaviour to change significantly from stage to stage, but they expect behaviour to be predictable. Kagan (1963, p. 32) commends any attempt to 'obtain a preview of the future' but holds his optimism to a less finite span than the critical (quasi-'momentary') periods: he is looking for developmental eras - not merely to provide 'degrees of continuity of selected behaviours', but to afford assistance to those who, in working with children, are confronted with troubles which stem from a breaking down either in the development of sex typing or in the development of sex-role identity.

In a logical, though earlier, extension of this point of view, Kagan and Moss (1962) argue that the early years of school are a 'critical period' for the establishing of a constancy between the behaviour of childhood and behaviour as an adult: "The first four years of contact with the school and peer environments... crystallise behavioral tendencies that are maintained through young adulthood." (p. 242). The concept of a critical period, therefore, is one of an attenuated period of time extending over a much more lengthy period than is recognised in infrahuman research. The notion that there may be sequences of experience which would maximize the acquisition of sex-role identity introduces interesting possibilities for the present study. Although there are elements of agreement in the various positions outlined above, there are few theories which acknowledge - let alone incorporate - advances in research from 'alien' sources. Baldwin (1967), in his final chapter says that the various developmental theories 'talk past each other' and that 'at certain points the theories deal with the same subject matter in different terminologies.'

There is good sense in Baldwin's strictures. Social-learning theorists ignore variations in social-structure; psychoanalysts, though aware of the subtleties of interaction within the family, deal largely with sibling rivalry and relationships developed between parent(s) and child(ren); Piaget-inspired researchers pay little heed to

cognitive differences between boys and girls in different social environments. Bronfenbrenner, well-known for his critical appraisal of developmental theory, contends that:

"... the further growth of developmental theory appears to call for a convergence between the approach of Piaget and that of social learning. Even at the purely hypothetical level, the idea of such a "cultural and scientific exchange" raises some fascinating questions." (Bronfenbrenner, U., 1963, p. 541).

Psychosexual Development in Boys

Initially, a child is closely tied by emotional bonds to his mother. The 'identifications' which ensue, in the preschool years particularly, are familiarly determined. Psycho-analytic theory has exerted considerable influence on other theoretical formulations. This position, postulating that the development of a sexual identity is more difficult for girls than for boys, is largely discredited at the present time (Lynn, 1959), (Mussen and Rutherford, 1963). In discussing the development of sex-role preferences, Lynn writes:

"The present formulation differs from the classical Freudian position which postulates that girls experience greater difficulty than boys in developing appropriate sexual identification because of their envy of the genital organ possessed by little boys". (Lynn, D.B., 1959, p. 126).

And Mussen and Rutherford (1963), who propose a developmental hypothesis in which identification is nourished through affection and warmth directed towards the parent-model, have written:

"This hypothesis would not predict, as classical psycho-analytical theory does, that the process is more confused, complex and slower for girls than for boys."
(Mussen, P.H. and Rutherford, E., 1963, p. 580).

Gorer (1959), Nash (1965) and Ostrovsky (1959) have each spoken of 'matriarchy', 'matricentred society' and of the preponderance of women teachers in education; Mowrer (1950) in his elaboration, is another who reverses the initial Freudian position and hypothesises that male children are initially disadvantaged in their quest for appropriate

sex-role identification. All of these writers emphasize the problems of identification which exist for boys. From an initial symbiosis of mother and child, other relationships develop. The popularly-held view that the father is the son's initial model, and that from his 'personal' identification the later positional appreciations develop seems a reasonable point at which to open the investigation. Brown (1956) for example, has found that affectional ties between fathers and sons of Kindergarten-age are stronger in those boys who possess a high degree of masculinity as measured by a scale of sex-role preferences; Fauls and Smith (1956) have indicated that, for Kindergarten-age boys, the presence of a father and an older brother facilitates sex-typing; at the other extreme, Mussen (1961) found that high school boys whose interests were strongly masculine indicated a higher degree of cordiality in relationships with their fathers than did those whose preferences swung towards the feminine. Just how, why and when these changes occur raises some tantalizing questions. In any attempt to elucidate these problems, however, a cautionary note needs to be sounded: i.e., any view which ignores the significances and accessibility of the full repertoire of potential models within the total emotional corporation of the family is dangerously, naively reductionistic.

Gesell (1940) indicates that a boy can ascribe masculinity to himself at the age of three: he is aware also of some of the activities which his own society regards as masculine. But these are labellings of himself and acknowledgements of socially-acceptable behaviours rather than any extension outwards of more diverse masculinities beyond himself and belonging to those whom he encounters in his immediate inter-personal relationships. Indeed, it may be interpolated here, he continues, at three, to show feminine task preferences (Brown, 1965). At four the recognition of differences between the sexes are perceived differences - differences that is, which are based on observation, the continual absorption of new ideas

and continuous adaptations. These, Piaget (1950) argues, provide a 'functional continuity' quite compatible with the differentiation of successive structures. It is the operation of new and different structures in mental processes which enable us to identify a new 'level' or 'stage' of development. 'At five boys may reject girls' toys; at six there is some confusion in the differentiation of male and female' (Gesell and Ilg, 1946) and at seven there is interest in the sex-roles and characteristics of boys and girls. Just how these developmental changes are achieved has yet to be examined.

Kagan and Moss (1962) have indicated that extension into extra-familial contacts is vital in establishing lasting behavioural tendencies. These contacts, normally introduced in the beginnings of school life, occur at a time when the child is neurologically bound to points of view which are egocentric: he is unable, as Piaget puts it, to 'decentre' his ideas. Around six, seven and eight, according to the level of development reached, he becomes able to decentre and function at a concrete-operational level. 'Operations' are central events within the Piagetian model; and Brown (1965, p. 226) points out that their "... neurophysiological nature is unknown..." but that "they do not imitate perception as does the image." Piaget sees these operations developing not passively, but out of motor activity: in his own succinct phrasing "penser c'est operer." In other words, the child can perceive relationships in terms of the particularised actions which he himself performs. Accordingly, the occasions when he positions himself in simulated roles should help facilitate his understanding of the expectancies immediately beyond him. In his various roles he can try, test and express the performances which society will eventually expect of him.

At eleven or twelve the child moves into the stage of formal operations in which ideas rather than actions are foremost in cognitive growth. Ideas can be considered in the abstract without any need to refer back to the concrete physical world for confirmation.

He is able to think operationally, to form hypotheses and make deductions from them; he is able to consider possibilities as well as actualities. Although he still cannot logically explain how he reaches all his conclusions, he is no longer tied to thinking in terms of particularised aspects of situations; he has achieved a mobility of thinking, which, whilst it may not be realised until the age of fifteen or sixteen, provides him with a superior range of intellectual skills.

No brief a discussion does little justice to the impressive contribution Piaget has made to developmental psychology. But two significant features emerge for consideration in this study: first, that he sees the child as non-passive as he moves toward maturity; second, that he postulates - through the process of equilibration - that the child gradually and sequentially gains operational competence.

The Present Study.

In terms of the present study, the operational competence to be gained is that concerned with the acquisition of sex-appropriate behaviour. If Piaget's developmental theory holds as true for sex-role development as for intellectual development, then distinct levels of sex-role phenomena should be discerned. As Kohlberg and Zigler (1967) point out, sex-role identity is not stabilised until six or seven, '... at a time when other forms of physical constancy or physical conservation become fully stabilised.' (p. 104). Although other evidence for postulating a developmental frame of reference for the present study has been examined (Erikson, 1950), (Reichard, Schneider and Rapoport, 1944), the ontogenetic changes which Piaget postulates seem to deserve attention. The Wernnerian assumption that wherever there is development, systematic orderly sequence is achieved and the similarly-oriented developmental theory of Piaget provide an effective base from which this enquiry will proceed.

In another sense, this study is an attempt to close - at least

in part - the declared and contemporary gap on developmental change in sex-role identification by focussing on age-changes. The three levels at which testing was carried out were deliberately selected to coincide with the times at which crucial changes in a child's education occur. At five he leaves his mother and is under the care of a woman teacher for a large part of his day; at seven or eight he leaves the less formal, unstructured atmosphere of the junior department; at eleven or twelve he is a member of a 'streamed' intermediate school and is taught, not by one teacher exclusively, but by a series of semi-specialists. These are significant 'custodial' changes in the life of the school-age child.

Sex-role identification is to be viewed as a process in which the boy's perception of his model - or (more precisely) his models - change(s). The process may be only a partial identification with a model who is, as the child sees him, an inconstant figure. That the child identifies only in part may be due to a number of causes: (a) the number of alternative models (e.g. parents and siblings) available; (b) variations which the model-figures present at different times; (c) the lability of the child himself. These causes need to be held in mind during the present enquiry.

Changes manifested in the child are both qualitative and quantitative; they seem progressive, orderly and coherent; they suggest a directional movement towards maturity and an emerging understanding of the self. If these changes are to be considered as developmental changes, then a number of conditions must be satisfied: (1) Change must occur as time passes; (2) there must be ongoing and increasing complexity of organisation; (3) there must be integration of parts into larger units; and (4) self-regulation or stability must appear in maturity.

Change-with-age in the acquisition of sex-role identity constitutes an important part of the present study.

CHAPTER IV

SOME RELATED ISSUES

Introduction

Conferment of sex is an innate, genetically-determined process. Sex-role orientation, on the other hand, is neither innate nor genetic. It occurs through the adoption of sets of psycho-social characteristics appropriate to either males or females. Thus, becoming male or female in orientation depends upon three factors:

- 1) assignment of a sex-specific status by the group or culture to which an individual belongs.
- ii) learning to decipher the 'continuous multiplicity of signs' (Money, Hampson and Hampson, 1957) which confront a child from the moment of his birth.
- iii) experiential development.

Sex-role adjustment is basic to normal social development; where appropriate adjustment is not made, psychosexual problems result. Yet, in spite of the significance of this aspect of development, sex-role behaviour is one of the least-explored areas of personality formation. And the deficiency is particularly marked in studies of sex-role development in children.

This present study focusses principally upon sex-role development in boys. It marks the beginning of sex-role research in New Zealand. Because of this, a range of variables has been chosen for investigation; restriction to children of the male sex not only renders the project less cumbersome, but directs it specifically to masculinity - about which so much has been written in the New Zealand setting.

New Zealand is portrayed as a land enmeshed in a web of masculine dominance (Chapman, 1952), (Ausubel, 1965), (Meikle, 1965). The view that a long-standing division between the sexes is directed

and engineered by society itself is commonplace. Divisiveness, it is asserted, is what New Zealanders want. Statements which so interpret the New Zealand scene are sincerely expressed; they are accurate whenever they indicate that social - and adult - polarization, determined on the basis of sex, is a contretemps within the civilized western world. The assertion that polarization exists here, however, has never been put to the test of empirical verification. If New Zealand does prove to be so divided, it clearly stands in sharp contrast to similarly-styled countries abroad where a blurring of the lines between the sexes is a current social phenomenon (Kagan, 1963), (Shields, 1966), (Silcock, 1966).

Commentators who speak with unwavering confidence of 'un-subtle emotional relationships' (Alcock, 1966) or 'anachronistic ideas of masculinity held by the New Zealand father' (Bourne, n.d.) derive none of their remarks from the findings of objective research: for there is none. Ausubel (1961) comments that the increase in single-sex schools in this country is a result of a national prudence and a clamour for the separation of boys and girls during the sexually-vulnerable years of adolescence. His comments, as a case in point, are not confirmed by an analysis of the Department of Education's building programme. Figures (E. 1 Reports, 1957-1963) show that of 42 schools built or 'translated' from District High Schools between 1957 and 1963, only eight were single-sex schools. Whether or not a culturally-homogeneous attitude exists regarding such topics as masculine domination, authoritarianism in home and school, child care and discipline has yet to be determined. Those who promote such views as those above may be unusually perceptive; they may, on the other hand, not be so. Certainly men must continue to ask whichever questions need to be asked; they must conjure hypotheses which challenge and demand closer analysis of the New Zealand condition. At the present time many are only successful in convincing those who agree with them; for others, 'science is the only way of showing truth down the reluctant throat' (Maslow, 1962).

Systematic, critical investigation therefore, is an imperative for New Zealand at the present time. Only by this means can subjective belief be checked against objective reality.

This present study begins enquiry into one area in which no research has previously been pursued - some determinants and correlates of sex-role identification. In so doing, internal relationships within families are examined in the belief that this will provide some necessary insights concerning contemporary New Zealand society.

The Family, The Child, and Sex-Role Development.

The family has become a tilting-piece for critics of contemporary society. It is claimed that it is 'being stripped of its functions' (Fletcher, 1962); that there is 'a breakdown in family life and social standards generally' (The Times Educational Supplement, March 31, 1961). These views are open to question. Alternatively, it may be contended that today's family, because of its greater detachment from the age-rooted ties of extended kinship must meet considerably more emotional demands from its members. There is no study which provides this information on the emotional support children receive within the family, nor is there any instrument of a non-clinical kind from which data can be easily drawn. The problem which presents itself, therefore, is the need for an evaluation of the child's view of his emotional involvement across the full configuration of the nuclear family - with mother, with father and with sibling(s). The gap is a real one; the child's relationships with other of his family are not immediate, situational events; they increase, or diminish, over time. They are, in the language of Sears, Maccoby and Levin, (1957), 'changeworthy'. The relationships which the child develops within his family will be factors of some importance in determining his behaviour.

It is within the family that sex-role development, the central element of this research, primarily takes place. It is the family which provides the child with his earliest, most fundamental

socializing experiences. Within it the child is encouraged to relate to other persons, to discern differences in the treatments accorded to males and females and to find himself, whether he likes it or not, placed within a sex-category which permits him a range of behaviours limited by sexual ascription. Precise limits, are rarely spelled out for him, inappropriate behaviours may never be specifically forbidden. Yet, facility in discriminating sex-role characteristics is a pervasive, necessary and enduring accomplishment in the acculturation of the young. It is this process of discrimination to which attention is directed in this current work.

In the literature of sex-role development it is explicitly stated that facilitating the process of sex-differentiation is part of the function of the family; and it is acknowledged that the family is not constrained to instruct the young in the affixation of sex-appropriate labels to persons, things and behaviours. Family influence, as distinct from parent influence, has yet to be examined. Such questions as variation in influence at different stages of a child's life, differences in influence between families of various densities and structures have, in the past, scarcely been considered. Placing the child within his particular family setting in the present study therefore, adds a new dimension to this aspect of child development research.

The Evolution of Language Communities

Children, the family, and the complementary nature of males and females are matters which have been discussed and debated for countless generations. Speculation has come from Christ and Confucius, Plato and Locke, Shakespeare and Dostoevsky; no one class or group of scholars has won right of pre-emption. But, whatever the conclusions drawn, they have, for the most part, derived from insightful, non-empirical observations and competences.

The greatest progress has been made since Darwinian theory brought new directions in the contemplation of society in the second

half of the nineteenth century. Human institutions were discoursed upon as if they were evolutionary analogues of the more primitive biological organisms. There was little objectivity; where material was presented, it was usually impressionistic and descriptive, drawn largely from biography or anecdote. Moralistic literature and fiery evangelism¹ were common. Genteel novelists presented the impression of a fundamental disparity between men and women. Men, stronger omnipotent creations of an all-seeing God were, unfortunately, consumed by unspeakable appetites. Women, weaker vessels of a benevolent Creator suffered the base emotions of their men and succumbed to 'the vapours' in their own recurring times of stress and trial.

Impressionism was unseated by more rigorous research procedures, in the 1920's. But, not until the second half of the twentieth century did theory-building in human behaviour reach towards a higher point of respectability. Theory, of course, is still popularly depreciated. Lay opinion holds to the naive view that theory and practice are inimical, even irreconcilable. But although theory-building is a relatively recent innovation in the social sciences, the demands imposed are exacting. Its theories must be interpretable, they cannot be divorced or detached from empirically-derived or observable facts. And, if theories cannot provide bridges to things "out there" they cannot be claimed to be scientific theories at all.

Bronfenbrenner's review (1963) of changes in theoretical perspectives brings the contribution of systematic child development research into sharp focus. Since 1948 enquiry into the structure and function of the family has proliferated as well. Hand-in-hand with a quickening, widespread interest in research have come an expansion in theory-construction and a multiplication of 'schools' of various

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1. Typified in the terrifying verses of Isaac Watts. For example:
 There's not one sin that we commit,
 Nor wicked word we say
 But in Thy dreadful book 'tis writ
 Against the judgement day.

psychological persuasions. Inevitably, compartmentalization has led to problems in communication - a difficulty spoken to by J.B. Watson when he wrote as early as 1913 that 'there is no guarantee that we all mean the same thing when we use the terms now current in psychology'.

The problem is much more acute today. Not only are there different languages within the disciplines of the social sciences, but there are, in addition, differences in the ways of interpreting behaviour. In the main, these vary according to whichever theoretical stance is adopted. Nor should the possibility that interpretive differences may repose within specific nationalistic contexts be ignored.¹

Mandler and Kessen (1964) point to a differently-based difficulty in communication. They suggest that the Californian rat-runner perceives VTE behaviour in his laboratory subjects which his Yale and Iowa colleagues are unable to see. And the psychoanalyst, well-schooled in clinical techniques, sees a world full of libidinal cathexes which his laboratory-trained colleagues will not see and - possibly - will not concede. In sum, differences in interpretation result (a) from the assimilation of particular vocabularies and (b) from variations in training deriving from 'schools' or from theories of distinct and discrete persuasion.²

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1. Commented upon by Russell (1927): "One may say broadly that all animals that have been carefully observed have behaved so as to confirm the philosophy in which the observer believed before his observations began. Nay more, they have displayed the national characteristics of the observer. Animals studied by Americans rush about frantically with an incredible display of bustle and pep and at last achieve the desired result by chance. Animals observed by Germans sit still and think and at last evolve the solution out of inner consciousness."
 2. Koch (1964) is reported as describing this as 'the disorderly array of language communities to be found currently within psychology' (see Sutton-Smith, B. and Rosenberg B.G., The Sibling (in preparation)).

The Phenomenological Approach¹

A considerable amount of research in child development has been concerned (a) with investigators' interpretations of behaviour in interactional settings (e.g. Gesell's work at Yale), (b) with manipulative settings (e.g. Solomon's token-reward machine) or (c) with interpretations of child behaviour from either peer or adult ratings (e.g. Ruddenham, 1953) or parent reports (e.g. Sears, Haccoby, Levin, 1957), (Schafer and Bell, 1958). Each method operates within a different idiom, each has its particular problems, none (i.e. of those mentioned above) provides a child's-eye view of the world.

It is the child's-eye view of his world which will provide the idiom in this present study. The approach therefore, is intrinsically phenomenological. There are cogent reasons underlying this decision. In the first place, this method need not be supported by insights or evidence provided from within alternative ontological positions. That there may be discrepancies between phenomenology and its alternatives is conceded. But discrepancies arise even from within other, more conventional, language communities within psychology. This has been amply illustrated by Kohn and Carroll (1960) who, in studying parental responsibilities in eighty families, obtained parallel data from fathers, mothers and children.

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1. Phenomenology proposes a reduction to immediate experience. According to Mandler and Kessen (1964) 'It asserts the necessity of an elementary analysis of appearances and perceptions, a descriptive phenomenology of inner experience which is the basis of empirical psychology' (Husserl, 1913) Phenomenology is an introspectionism ne plus ultra which aims at the pure description of phenomenal experience.'

A distinction is drawn between ontological and descriptive phenomenology. In ontological phenomenology, experience exists quite independently of any attempt to analyse or describe it; in descriptive phenomenology there can be no awareness of the real nature of experience until it has been analysed into its component units of inner experience. (Stanhouse, pers. comm.)

In only 46 percent of families were the responses of all family members in agreement; in 61 percent fathers and mothers agreed; in 51 percent fathers and children agreed. Because phenomenology may provide a unique view of reality, the use of this approach is defensible.

Second, irrespective of the methodology employed in the gathering of data, limitations in technique and difficulties in interpretation are frequently evident. Where, for example, parent-child interaction is the point at issue, interrogation of the mother by questionnaire or interview is commonly used. This may provide any one of a number of possibilities: (i) the mother might say what she would like to do in a given situation rather than what she does; (ii) she might say what she does on most occasions; (iii) she might say what she did in the most immediately-recalled situation; (iv) she might say what she thinks the interviewer would like to hear; (v) she might say what popular prescription, as interpreted from Spock, Plunket Society or women's journals, advocates.

Third, the phenomenological approach does not possess one of the more serious limitations of the experimental technique. Studies in which variables are controlled in laboratory settings are effective in situations (a) which isolate a segment of the child's environment and (b) which are concerned with the immediate present. But, in many situations, particularly those addressed to interaction with other people, the child's past history constantly intrudes upon the present to modify behaviour. The denial of historical variables and the frequent neglect of the real life setting in experimental-laboratory approaches impose serious limitations upon child development research. In answer to this criticism, Bijou and Baer (1960) have written that the problem represents '... a practical rather than an inherent difficulty, a shortage of time, personnel, ingenuity or technology.' Although the authors may believe otherwise, this could be interpreted as

being condemnatory and disconcerting. Equally, it could cast serious doubts on the relevance of 'brass and wire psychology' for the provision of the richest insights into child development.

Others too have expressed reservations. Yarrow (1963) has pointed out that the employment of the laboratory technique is an abandonment of complexity; Sutton-Smith (1966) has suggested that experimentally-oriented psychologists have '... taken their experiments as a metaphor for reality...' and that within their metaphor the direction of development is determined before any experimentation begins.

Methodological hazards such as these enumerated above, are too rarely discussed. In any behavioural research it is necessary in the first place to be aware of the range of techniques available, and in the second, once a choice is made, to be 'relentlessly critical' (Yarrow, 1963) of inherent limitations. There is no denying that limitations exist in the approach to be employed here, but it can be argued that these are heavily outweighed by advantages which accrue.

Relationships with the Family

1. Conceptual Problems

An extraordinary paradox in the literature of child development is the frequency with which the terms 'family relationships' and 'family interaction' are restrictively employed or misconstrued. In some work, it appears there is an assumption that relationships occur only between parent(s) and child(ren) and, furthermore, that influences are uni-directional - i.e. in a parent-affecting-child manner.

Explaining family relationships in these terms denies two significant facts: (a) that relationships within the family extend more widely than between parents and children, (b) that the fundamental realities of mutuality, reciprocity and coalition in family life exist.

Clearly, if a child is to develop self-awareness and an esteem of himself as a person, he must draw upon a wider repertoire of relationships than those developed solely between him and his parents (Satir, 1964). The family provides an interactional network; within it, complex bonds of varying strengths are forged. The view taken here is that any approach which takes a limited, one-directional view of relationships would only afford an incomplete and inadequate interpretation of familial bonds.

A brief glance at a number of regularly-used child development and child psychology texts indicates that scant attention has been given to the full range of interactions within the family. Merry and Merry (1958) deal only with sibling jealousy and, in ~~one~~ brief paragraph; Fleming (1959) devotes a whole chapter to family influences but makes no mention of interaction; Stone and Church (1959) offer no adequate consecutive treatment of family dynamics; McCandless (1961) refers briefly to the influence of siblings on sex-typing but does not, at any point effectively place the child into his family setting; Baller and Charles (1961) in two pages deal summarily with sibling relationships; Thorpe and Johnson (1962) choose to limit their explication to symbiotic¹ family relationships. Although this term is a judicious one and although the authors introduce their chapter with the quotation that 'the parent-child relationship... provides the mold in which all other experience is cast...' (Diamond, 1957) the one-parent-to-one-child emphasis persists. In this book, which claims to deal with the dynamics of family relationships (p. 151-154), the only reference to the total configuration indicates that mother, father, siblings and other relatives are important within the home.

In sum, there is little regard for the totality of family patterns in the recognized texts; and the disinterest - or unconcern - has never been clearly explained.

1. 'Symbiosis', in biological terminology, refers to a permanent union between organisms interdependent on each other.

2. Mother-child interaction

Criticism can be directed at the generally-held assumption that one parent - very often the mother - profoundly influences the child; there may be no analysis of interaction offered, nor any recognition of the possibility that the child might influence parent behaviour. Yet Schachter (1959) had made this latter point particularly well with his 'baby, pin pricks baby, baby is scared, screams - mother hears scream, rushes to baby, investigates, removes pin, kisses sore spot, caresses, fondles, soothes' illustration. Schachter is suggesting that baby and mother reciprocally interact to reduce each other's anxiety. Continuing, he speculates that position within the family might well predispose children to certain response sets. With later-born children, the mother, more blasé and sophisticated in rearing her children, spends less time reducing anxiety than she did with her first-born. It is the first-born and only child who, Schachter suggests, will display stronger affiliative needs in anxiety-provoking situations. This is a confrontation: a refreshingly new dimension has emerged from it.

Whether or not the emphasis placed on the mother-child relationship is as significant or as long-lasting as was hitherto supposed is open to conjecture. Without any doubt the mother-child dyad is of crucial importance in the early years; the voluminous literature on maternal deprivation (Harlow, 1958), (Bowlby, 1951), (Spitz, 1946), (Casler, 1961), (Wootton, 1962) providing new insights into the mother-child alliance, has been exciting and valuable. Its extension beyond either the postulated critical periods (Nash, n.d.) of early life or into the middle years of childhood to the accompanying and total neglect of other persons within the family is not uncommon.

3. The role of the father

The role of the father has been curiously neglected in the literature of child-rearing and family relationships. Carmichael

(1954) does not list father in his index; Bowlby (1951) sees him as '... of no direct importance to the young child, but of indirect value as an economic support and in his emotional support of the mother.' And still more recently, Miller and Swanson (1958) in their study of six hundred children accord very little significance to the father's role in child-rearing.

It has been argued (Wylie, 1942), (Corer, 1943), (Quackhorn, 1949), (Strocker, 1951) that present-day western society is matri-centred. In a recent publication (Incol and Davies, 1965) some support is given to this affirmation, though specifically in an Australian context. Two reasons may be adduced for the purported feminine-centred emphasis in developmental research: (a) the inaccessibility of the father for research purposes, (b) the importance given to his economic role, to the detriment of his affectional one.

There have been very few studies of father-child relationships. Nash (1965) found only seven adequate studies in post-World War II years, though, it must be conceded, studies which bear directly upon delinquency and sexual aberration have produced findings which underline the salience of faulty father-child relationships in the aetiology of disordered behaviour. Yet, of the child development texts currently in use in New Zealand, there is only one (Stone and Church, 1957) which offers any criticism of this limitation. Comments have appeared in other publications (Metraux, 1955), (Astrovsky, 1959), (Nash, 1965) but these filter only slowly into the mainstream of discussion. This present study will take heed of child-father interaction and will compare the correlates of father-child affectional bonds in sex-role development with those of the mother.

4. Sibling Interaction

Earlier, it was stated that the family provides 'a network of relationships'. Within this network, relationships with siblings provide a powerful means of socialisation. Siblings may develop

interpersonal affiliations very different in nature from those developed with parents; they may, in some situations, serve as surrogate parents; in others they may provide emotional and affectional security, perhaps of a kind denied them by parents. And, with strict regard for the present study, they may provide the role-models (or opposite-sex models) so important in sex-role differentiation and in the development of a sex-role identity.

Studies in sibling relationships are few. Admittedly, the importance of siblings has fallen within the purview of ethnologists and ethnopsychologists¹ but in social psychology and sociology, as Bossard and Boll (1958) have pointed out, 'the role of siblings has been considered chiefly in the light of "displacement" and rivalry.'² Freudian thought, with its emphasis on the child's striving for parental affection, has undoubtedly contributed to this. Other factors which have contributed to the paucity of sibling interaction research are: (1) the attention given primarily to parent-child relationships; (2) the complex methodological problems incurred in studying sibling interaction across time, by age and in diverse social situations; (3) the diversionary demands placed upon sociologists and psychologists; (4) the inaccessibility of siblings - i.e. relative to the accessibility of individuals or other social groups. (Irish, 1964)

A great deal of research has centred upon the impact of parent-child affiliations (i.e. same-sex and opposite-sex vertical relationships) on the acquisition of sex-role. But the influence of a sibling in sex-role development, ignored in the past, is an avenue in research which deserves attention. Furthermore, in a recent article (Billar and Borstelmann, 1967) it has been speculated that:

"Perhaps sibling effects are stronger in young children because, with increasing age, greater interaction with

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1. See Murdock, G.P. (1949) Social Structure (MacMillan). Ritchie, Jane Childhood in Rakau: The First Five Years of Life, (Victoria University of Wellington.)
 2. Research on sibling order is not included in this discussion.

peers provides brotherless boys with many masculine models." Within the compass of the present study, both these contentions can be examined.

Determinants of Sex-Role Development: A New Zealand Perspective

In an earlier chapter (Chapter II) the major theories of identification have been discussed;¹ more recently, a cognitive-developmental dimension has been added to theorisation about sex-role development (Kohlberg, 1966). These theories have one feature in common - the significance of the parent-child relationship. And, from this derives the view of the salience of the father for the son once early maternal dependency or the oedipal situation is resolved. Theory has provided a fiat for empirical research to proceed from a position in which the basic assumption has been that parents, as models or mediators, provide the child with two alternatives - to identify with the father, or, to identify with the mother; other likely source persons are overlooked. Although the statement is made that 'we are always concerned with the relative strengths of identification with various models' (Mussen, Conger and Kagan, 1963), there is no research in which extension beyond the parent-child paradigm is described. A further curious paradox is observed. The change to urban living has supposedly caused a diminution in the father's 'visibility' to his children, yet the assumption of his continuing unchanged significance as a model persists; changes in the father's task-performance in the home and the obscurity of his vocational role create a discrepancy between the cultural stereotype of the masculine role and that presented by the father himself. Census data (1966) show that 77 percent of New Zealand's population now live in urban centres. This considerable change to an urban-based society through more recent years is shown in Table 1.

1. Biller and Borstelmann (1967) provide a further brief account of these theories.

TABLE 1

URBAN AND RURAL POPULATION OF NEW ZEALAND, 1926-1966

YEAR	URBAN		RURAL	
	No.	Percentage	No.	Percentage
1926	888,585	63.4	512,416	36.6
1951	1,345,292	69.6	583,302	30.4
1956	1,535,951	70.8	633,663	29.2
1961	1,779,754	73.9	629,665	26.1
1966	2,064,574	77.3	607,534	22.7

Note: Urban population is defined as 'urban area population plus that of all boroughs, town districts, townships and (for 1961 and 1966) county towns with populations of 1000 or over'. (N.Z. Official Year Book, 1966).

And changes in occupational groupings throw further light on the increasingly urbanised form of living, causing the father's vocational pursuit to be less 'visible' to sons than formerly. Some idea of these occupational shifts is given in Table 2.

TABLE 2

PERCENTAGES OF EMPLOYED PERSONS, 1936-1956

	<u>1936</u>	<u>1956</u>
Primary Production	27.1	15.2
Secondary Industries	24.2	35.8
Services	48.7	49.0

Boys, according to Lynn (1963), have little but a culturally-stereotyped masculine adult role available. Yet they are expected to resolve their sex-identity at an earlier age than girls (Brown, 1956), (Cava and Rausch, 1952) and to be aware of what is expected of them as males by kindergarten age. Girls, on the other hand, 'able towards femininity' for another five or more years (Hartley, 1959). The expectations of parents, teachers and other significant adults place heavier demands on the boy than on the girl. Although expectations may be ideally-based, he is expected to be less

1. Urban-rural comparisons for earlier years are discussed in Appendix I.

dependent, tougher, stronger and to adjust to difficulties in more mature ways.¹ The problem of adequate sex-role adjustment may, because of the foregoing, prove to be much more difficult for the boy than the girl. Observations (Gilbert, 1957) that the males experience more psychological disturbances and present a greater number of problems in society is confirmed by the New Zealand statistics.² For children receiving special education between the years 5 and 15, boys heavily outnumber girls, as shown below:

TABLE 3
CLASSIFICATION OF PUPILS RECEIVING SPECIAL EDUCATION
AT PUBLIC PRIMARY SCHOOLS, 1965.

	<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Boys as Percentage of Total</u>
Adjustment Classes and Special Schools	88	26	114	77.2
Child Welfare Division Institutions	89	64	153	59.8*
Educationally retarded	238	61	299	79.6
Speech Clinics	1791	855	2646	67.6

* Up to the age of 15, boys comprise 76% of the total.

(New Zealand Department of Education, Education Statistics of New Zealand, Part II, 1966).

Sex differences in behavioural disorders of the above kind have

1. Kagan, J. (1963) in his mimeographed paper 'The acquisition and significance of sex-typing and sex-role identity' elaborates on this point.
2. M:F ratios for disorders of character, behaviour and intellect, derived from statistics on first admissions to mental hospitals (N.Z. Department of Health, 1966) indicate an accelerating rate for men:

<u>Age</u>	<u>M/F Ratio</u>
0-10	1.27
11-20	1.80
21-30	2.23
31-40	3.03
41-50	3.42

been attributed to differences between culturally-defined expectations for boys and girls (Bentsen, 1966). Girls, for example, are expected to be more passive and conforming, boys more rebellious and aggressive.

Lynn (1961) too has indicated that a high proportion of boys develop psychological disturbances very early, but that the rate slowly decelerates as they grow older. He believes that a factor contributing to these early psychological difficulties is the development of a masculine identification. This may provide an explanation, even if only in part, for the high percentages of boys in need of special education at the present time.

Whether or not persons beyond the family intervene in the development of sex-role identification in the primary school years is uncertain. The transition from home to school is believed to be more easily accomplished by girls, principally because schools are governed by standards and values more appropriate to feminine behaviour. Complaisance, neatness and politeness are qualities more clearly acceptable in the school setting than impulsivity, unruliness and rugged individuality - qualities which relate more easily to masculinity. Gorer (1959) suggests that the overwhelming number of women in primary and secondary schools invests a heavy feminine component into school life. The female teacher, Gorer suggests, is guide and arbiter of American conscience:

"Most boys reach and pass through adolescence under almost undiluted female authority; their conduct has been regulated by female norms. Praise and blame, their ratings in the competitive world have almost all been given by women; it is small wonder that their consciences should become predominantly female."

Primary and intermediate schools in New Zealand, however, are not overwhelmed by a disproportionate number of women teachers. The proportion of men to women teachers in New Zealand is 77.4:100; within the Wanganui Education Board 82.4:100¹ (New Zealand Department of Education, 1966). Given in this form, the picture is deceptive,

1. Primary School staffing only.

for the most telling figures are those which show the proportions of men to women classroom teachers. If classroom teachers only are considered, then 69.13 percent of primary teachers are women; in the Wanganui Education Board 66.35 percent are women. In the intermediate schools, (i.e. F 1 and F 2 pupils) men fill 58.19 percent of class teaching positions. So, with a substantial proportion - over 50 percent - of New Zealand's children receiving their two final years in these schools, Corer's claim is difficult to substantiate if extrapolated to the New Zealand scene.

Changes-with-Age

The literature of sex-role development suffers from a deficiency of research in which change-with-age is examined. Discussion in the past has centred upon two main issues: (i) the differences in sex-role development for boys and girls, (ii) the influence of one or other of the parents in the acquisition of sex-appropriate behaviours. Although Piagetian-type studies have proliferated upon intellectual development,¹ and moral development², there was no research until 1967 (Kohlberg and Zigler) which examined the question of the structural development of sex-role identification. Some research (Lynn, 1962), (Rosenberg and Sutton-Smith, 1964) does support the theoretical view that initially boys experience greater difficulty than girls in sex-role identification because they must make a shift across to the father. Girls, on the other hand experience greater difficulty later, due it is claimed, (Lynn, 1961), (Parsons, 1955) to the higher esteem which society accords to the male role.

Until the Kohlberg and Zigler study was published, there was no research which examined the process of sex-role development across any appreciable span of time. Although Kohlberg and Zigler

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1. see Freyberg, P.S. (1964). Some aspects of intellectual development in children aged six to nine years: A longitudinal study Unpublished Ph.D. thesis, Victoria University of Wellington.
 2. see Kohlberg, L. (1963). Moral development and identification in H.W. Stevenson (ed.) NSSE Yearbook, Part I.

bear mainly upon the significance of intelligence in sex-role development, they do suggest that 'it is plausible to expect some relatively invariant developmental trends in sex-role concepts and attitudes'. (Kohlberg and Zigler, 1967, p. 163)

Various writers (Freud, 1933), (Gesell et.al. 1946), (Eriksen, 1951, 1955), (Piaget, 1952) have written of the developmental sequences as series of 'stages'.¹ In these interpretations, behavioural changes of such noticeable dimension occur from stage to stage that forecasting of future behaviour is possible. Kohlberg and Zigler put this particular view succinctly:

"As the child moves from stage to stage, developmental theorists expect his behaviour to change radically, but to be predictable in terms of knowledge of his prior location in the stage sequence and of the intervening experiences stimulating or retarding movement to the next stage."

Conclusion

The debate which has taxed theorists for so long - whether or not development proceeds in 'stages' or as a continuous process has been discussed earlier (Chapter III). It has been pointed out (above) that much has been accomplished in examining the development of intelligence and morality. But, the fact that there are only two studies which examine the nature of any aspect of identification within a developmental frame of reference suggests a potentially rich field for developmental research. Research which examines identification at different age levels has never been seriously undertaken and until more data with an ontogenetic bias is available, the prospect of resolving the question of the developmental ramifications of sex-role identification is bleak.

Equally however, it is conceivable that there may be ontogenetic discontinuities in the development of sex-role. In 1905 Freud wrote that 'nothing is known concerning the laws and periodicity of the

1. Referred to in Chapter III.

oscillating course of development'. Almost sixty years later Emarich (1964) found it was still necessary to point out that 'a factor at one age may be quite different from a personality factor at a later age...'. Some support for these views with specific regard to sex-role development can be derived from research findings: (i) Terman and Miles (1936) found that although gifted boys are more masculine in games choices at eight, average boys exceed them at thirteen; on an adult test of masculinity-femininity, bright boys had a slight advantage at fourteen, but were outstripped by average boys at sixteen.¹ (ii) Mussen (1961) found that although boys who produced high feminine scores were poorly adjusted in adolescence they were better-adjusted as man.² (iii) Kohlberg and Zigler (1967) provide evidence that with both bright and average children reversals do occur in the development of sex-role attitudes. Bright children have a clearer male-preference at four, but move to a greater female-preference at seven; average children, on the other hand, move to greater male-preference at seven. A study therefore, which is addressed to the acquisition of sex-role identity within the developmental frame of reference should not preclude the possibility of reversal or discontinuity.

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1. Masculinity may well be a correlate of mental age to an age of about thirteen. Sex-typing (i.e. in age-appropriate/sex-appropriate behaviours) may well be a consequence of sex-role learning.
 2. Mussen appears to assume that masculinity is a unilinear quality in which increases in scores produce an increase in masculinity. Although he speculates that measures of adult masculinity-femininity adjustment might be inadequate he makes no mention of the possibility that concepts of masculine-appropriate and feminine-appropriate behaviour may change with age.

CHAPTER V

THE DEPENDENT VARIABLES: A SURVEY OF THE LITERATURE

Introduction

It has been pointed out in an earlier chapter (Chapter II) that identification is susceptible to a wide number of interpretations. So, any precise definition, or even a definition in 'area' terms, which would be universally acceptable is not yet feasible. Within this port-manteau-like term lies the term 'sex-role identification.' This too has been described in various ways. Variousness of description in this case, however, derives not from wide-ranging theoretical formulations, but more frequently from single-purposed research studies. In specific contexts, therefore, it is usually a crisper, less-elusive term than identification itself.

But the results which derive from research studies are frequently incompatible. There are three primary reasons for this: (i) the range of instruments and measures employed in evaluating sex-role identification, (ii) the diversity and looseness in the manner of using terms, (iii) the often implicit differences in the terms themselves.¹

The Acquisition of Sex-role Identity.

Sex-role identification refers to the internalization of the role considered appropriate to a given sex and to the unconscious reactions characteristic of that role (Lynn, 1962).² As Lynn sees

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1. In addition to sex-role identification, the terms sex-typing, sex-role attitude, sexual identity, sex-role identity, same-sex orientation, sex-role learning, sex-role behaviour, sex-appropriate behaviour, gender role and masculinity/femininity are used, often without any prescriptive reference.
 2. An alternative explication is that sex-role identification occurs when deliberate and imitated behaviours are replaced by automatic and generalized sex-appropriate responses (McCandless, 1963). Sears (1965) points to difficulties which have arisen because of two features: (i) the lack of exact definition of gender roles and (ii) the tendency to define in terms of polar opposites.

it, this is the third and final stage of a process through which sexual identity is accomplished; the earlier stages are (a) sex-role preference in which the desire to adopt as preferable or more desirable the behaviour associated with one sex or another and (b) sex-role adoption in which behavioural characteristics of one sex or the other are adopted. Thus the boy who has passed through these two preliminary stages and has accomplished male sex-role identification is one who has happily and thoroughly adopted maleness as his way of life; he thinks of himself as a male; he accepts and likes this state of affairs; he assumes the responsibilities that being a male demands; his sexual behaviour, pattern of interests, style of walking, talking and gesturing are male.

Clearly enough, there are cultural connotations too. For sex-roles are not universal, inevitable or immutable. Anthropological studies (Mead, 1935), (Spiro, 1958), (D'Andrade, 1966) illustrate that cultural differences persist even in the twentieth century. The Tehambuli woman is dominating, managerial, ruthless; the Arapesh male is mild and compliant; Mundugumor men and women are violent and aggressive. All three tribes are of common ethnic stock, yet these differences appear - all culturally-determined. That appropriate sex-role identity is not inevitable is clear from the literature of sexual deviancy (Bieber, 1962), (Magee, 1966), (Siffin, Johnson and Litwak, 1954); that it is not inevitable is supported by the view that the traditional, sharply-delineated concept of masculine-feminine polarity is being displaced by a convergence of sex-roles (Kagan, 1963), (Silcock, 1966).

The factors involved in the acquisition of sex-role are manifold. Josselyn (1966) has suggested that there are three sources which determine the view a person has of the sexual identities of himself and of others: (a) the inherent biological differences of the sexes, (b) the mores and ideas of the culture in which he is reared, (c) the attitudes of parents and certain significant others who are emotionally important to the child. Colley (1959) remarked upon the

unwieldiness and lack of definition of the term 'sexual identity'. In an effort to clarify the existing situation, he described (a) a biological sexual identity (the biomode), in which primary and secondary sex characteristics and endocrine functions are important, (b) a sociological sexual identity (the sociomode) which applies to gross behaviour, interests, attitudes, social standards of strength and beauty and societally-determined characteristics of masculinity and femininity, (c) a psychomode which includes characteristic ways of perceiving interactions with those of the same or the opposite sex.

The task of attaining sex-role identity as some have it, (Hampson, 1965), (Sears, 1965), (Baier and Ratzeburg, 1953), (Cottrell, 1942), (Parsons, 1942), (Babhan, 1950), (Fauls and Smith, 1956) is a learning task and one in which three motives underlying the adoption of sex-appropriate behaviours are discernible: (1) "the desire for praise, affection and acceptance by parents and peers for sex-appropriate behaviours (2) fear of punishment or rejection for inappropriate sex-behaviour (3) identification with the same-sex parent, parent-substitute or fantasied ego-ideal" (Mussen, Conger and Kagan, 1963). But the manner in which sex-role identity develops, until very recent times, has not been strenuously pursued. Emphases have been varied and divergent. Some studies, for example, have attended to likenesses to one or other of the parents, others have attended to positions on an M-F dimension. Overall, as Winch (1962) pointed out, it does not appear that 'the present state of knowledge permits much systemization of the topic of sex-role identification.'

Yet, it remains a topic of considerable importance. At a time when so much attention is directed towards catering for individual differences by educators, the differences between boys and girls in the manner and rate of developing sex-role identity has been entirely ignored in New Zealand. Health Department studies (Annual Reports, 1934 and 1954) and two unpublished theses (McQuarrie, 1966), (Howse, 1966) instance differences in maturation rates, vulnerability to

stress and emotional style for boys and girls. Data on the numbers of boys and girls referred to Psychological Services were made available through the Research Section of the Department of Education, not through Psychological Service itself. The developmental route along which New Zealand children travel is poorly signposted. This present study is a beginning.

Age-Specific Manifestations in Boys

For the child, the need for a firm, stable, age-appropriate sex-role identity is a central issue; the extent to which it is accomplished or otherwise determines 'the future behavioural choices' (Kagan, 1963) which are available to him.

At birth the only criterion upon which a boy is adjudged male is that he has male genitalia. But, from the moment of birth, when he is labelled with the blue name tag, wrapped in his blue blanket and placed in a blue bassinette, he is exposed to an ever-widening range of situations which propel him towards maleness. His responses must be culturally-appropriate and agreeable to other people. Presumably the requirements imposed upon him vary in strength and character from age to age. Thus genital exhibitionism, amusing at three, will incur legal censure at thirteen; punching and kicking, interpreted as tough and boyish at four will be reprimanded at seven; participation in football, encouraged at thirteen, may be too distracting to the student in maturity.

By the time the boy reaches toddlerhood, however, some behavioural signs and manifestations of masculinity are expected. He has begun to acquaint himself with 'a continuous multiplicity of signs' (Money, Hampson and Hampson, 1957). These signs must be deciphered; either casually through experiential lessons or 'under the impact of training and inclination' (ibid.). By the age of three, play preferences and toy choices are sex-oriented; boys prefer propelled toys, shooting, block-building, scrambling, running, wrestling; girls prefer playing with dolls, playing houses and using kitchen utensils (Deula and Smith,

1956), (Brown, 1956). At three, vacillation between choices is not uncommon, but by four preferences for sex-appropriate activities are beginning to crystallize; by five a much wider repertoire of sex-appropriate preferences is displayed. Boys and girls both report that parents prefer that they adopt sex-typed behaviours. In a study of children aged between 4 years 9 months and 5 years 9 months, Pauls and Smith (1956) indicate that when children were asked to choose their own preferred activities from sets of M-F activities, then to choose what parents preferred them to do, the boys' choices corresponded more closely to perceived paternal preferences than did the girls' choices. There were no significant differences between boys and girls on closeness to maternal preferences. Ss were classified into same-sex sibling positions (i.e. no S had an opposite-sex sibling) or 'onliness'; there were 10 MM_2 's; $8FF_2$'s, 10 M and 10 F. Some interesting results emerged: (1) only children chose more sex-appropriate activities than second-borns ($p = <.01$), (2) only children showed closer agreement of choices with perceived paternal preferences than second-borns ($p = <.01$), (3) boys' choices of play materials was closer to perceived paternal preferences than girls' choices ($p = <.05$). That the presence of older like-sex siblings appears to impede sex-appropriate behaviour¹ at this age has relevance for the present investigation.

The possibility of an alternative should not be overlooked however. If sex-role preferences are determined through interaction with parents (Brim, 1956), then it is conceivable that the only child has more interaction with his parents than the child with a sibling or siblings. Consequently his perception becomes sharper and more "mature". The second-born, on the other hand, is slower to perceive the expectations his parents hold because the intervention of the

1. The interpretation given by McCandless (1963) is erroneous:- "One may speculate that the presence of two models - father and older brother for boys, mother and older sister for girls - facilitated sex-typing."

sibling, together with the sharing of parental attention, disrupts the continuity of their contact with him. Thus he may be slower in learning his sex-role.

The Literature

Considerable research has been directed toward psychosexual characteristics in adolescents and adults. Little has been done to explore, developmentally, sex-roles in children. Conflicting views have been held regarding the relative difficulties of sex-role identification for each sex; other writers (Brown, 1956), (Lynn, 1961), (Hartley, 1960), (Lansky, 1964) have written that the task is more difficult for the boy, due, they claim, to the substitution of the father as a love-object for the mother. And, unless the shift is made in the early years, the prospect of achieving adequate masculine identity is dim.

For the purposes of this review only research which has bearing on the study of sex-role identification in boys will be discussed.

Four categories have been developed into which major research will be placed (a) Similarity-to-parent studies

(b) Toy choice, the IT Scale and game-preference studies

(c) Figure-drawing studies

(d) Doll-play studies.

Whilst the difficulty of focussing sharply and single-mindedly on parent-child measures is not overlooked, it is felt that within this classification the questions of overlapping and repetition can be minimized. Other reviewers (Gray and Klaus, 1956), (de Lucia, 1963), (Hoffman, 1963), (Eronfenbrenner, 1958) faced with the same problem, have pointed to the difficulties just cited. But there are other difficulties apart from those of the delineation of the categories into which studies will fall. These are the problems which arise from the varied notions research workers have of what they are measuring. The aspects most commonly stressed are (a) actual similarities between

parent and child, (b) similarities between parent and child as perceived by the child himself and (c) the motives which underlie the child's imitative responses.

Brenfenbrenner (1958) too, is critical of these measures and states that what is being measured may be no more than similarity with same-sex adults. Helper's (1955) and Lazowick's (1955) studies lend support to this case. In the first instance Helper found that the relationship between the high school child's ideal for himself and the parent's ideal for him were no closer than for the child and randomly-selected same-sex adults. In the second, similar findings resulted from semantic differential scores for college students. Purcell (n.d.) has also commented that a serious methodological and conceptual difficulty is that such behavioural characteristics as sex-role preference may be strongly influenced by extrafamilial cultural influences. 'It becomes extremely difficult', he remarks, 'to show that sex-role preference is necessarily based on the identification of the child with his own parent.' (p. 160)

This review summary will serve two purposes: (i) to illustrate some of the problems of method and conceptualization and (ii) to draw together the findings of past research into convenient categories.

1. Studies in Similarities to Parents.

In the main three methods of assessing similarities have been used: (i) between parent scores and child scores on personality tests, (ii) between parent and child as perceived by the child, (iii) between parent and child as measured on projective tests.

(i) Similarities on personality tests: Here, results have been almost as varied as the instruments used. Brodbeck (1954) used a technique in which children aged 10-14 rated fathers and mothers on a number of personality traits. They then evaluated the traits; identification was defined in terms of the number of positive evaluations

for the same-sex parent as against the opposite-sex parent. At 10, boys and girls both identified more closely with same-sex parent, but by 14 there were shifts toward closer opposite-sex identification; i.e. boys were more closely identified with mothers, girls were equally identified with both parents. Fathers were more favourably viewed by boys than by girls. Lazowick (1955) using Osgood's semantic differential found that both male and female college students were not closely identified with parents - who also responded to the semantic differential - on the factors of activity, potency and evaluation when S_a rated for themselves and parents. Actual identification, as estimated from S_a scores and opposite-sex parent scores were greater than perceived identification. Lazowick¹ adduced this finding to a cultural factor, in which children are conditioned not to identify too closely with opposite-sex parents. Low anxiety (normal) men shared a significantly greater semantic similarity (i.e. identification) with their fathers than did low anxiety (normal) women with their mothers. Gray and Klaus (1957) had college students fill out a values questionnaire for themselves and as they believed each of their parents would answer; mothers and fathers also filled it out. Both tested and perceived similarities were greater between S_a and like-sex parents than between S_a and opposite-sex parents. Girls were closer to mothers than boys were to fathers.

(ii) Child-parent similarities as perceived by the child himself:

In one of a series of researches (Payne and Mussen, 1956), (Mussen and

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1. Lazowick's mediation theory of identification which postulates a 'gross inverse relationship' between anxiety and identification has a great deal in common with the cognitive-developmental view (Kohlberg, 1963), (Kohlberg, 1966), (Kohlberg and Zigler, 1967). Lazowick writes of "the greater degree of identification between children and their parents the less the degree of anxiety" (p. 182) That is, low anxiety results from high identification not the reverse. Kohlberg reverses the interpretation of the causal direction of correlations between father identification and sex-typing; the cognitive-developmental view sees boys high on masculine sex-typing identifying with the father, not the reverse as in social-learning and psychoanalytic theories. (Kohlberg has no mention of Lazowick).

Distler, 1959), (Mussen and Rutherford, 1963) which attend to paternal influences, Payne and Mussen secured affection and reward scores by analyzing boys' responses to open-ended stories about relationships with their parents. High and low father-son similarity was assessed by subtracting the number of mother-son agreements from the number of father-son agreements on CPI measures. The authors report that boys who perceived their fathers as warmer, more rewarding and more powerful sources of punishment were more closely identified with them - i.e. they were more masculine. In a study designed to test the defensive and role-taking hypotheses of identification Mussen and Distler (1959) administered the IT Scale (Brown, 1956) to five-year-old kindergarten boys. They then completed nine open-ended stories involving parent-child relationships in doll-play situations. The results indicated that boys scoring high on male sex-role preference perceived their fathers as more rewarding and nurturant than boys low on male sex-role preference ($p < .02$) and those strongly identified with their fathers perceived them as punitive and threatening ($p < .06$) and powerful ($p < .07$). The authors interpreted their results as supporting a social-power theory and remark that 'role theory, with its emphasis on punishment and reward in role-learning, best integrates the data' (p. 356). A later study (Mussen and Rutherford, 1963) in which the IT Scale was administered to 1st-grade children to determine their masculinity-femininity, doll play sessions were conducted individually to evaluate the child's assessment of nurturant, punitive and power characteristics of mothers and fathers. In addition, parents completed the Femininity and Self-Acceptance Scales of the CPI and reported on the encouragement they gave to children to play sex-appropriate games. Their findings confirmed those of the Payne and Mussen (1956) study; boys aged 5 - as for boys at adolescence - who perceived their fathers as warm, nurturant and punitive, scored higher on male sex-role preference scores than those who perceived their fathers as less warm, less nurturant and

less punitive. The doll-play findings helped support the results of the Mussen and Distler (1959) study. There was no indication that either parental encouragement to participate in boys' games or parental personality traits were of any importance in sex-typing. 'The parents' personality structure and their pressure towards sex-typing,' the authors remark, 'are not significantly influential.' (p. 605)

The research of the Mussen (et.al.) group indicates that the process of sex-role identification for boys as assessed by such measures as the IT Scale and doll-play techniques is complex and dependent upon a range of situational and psychological antecedents. Their customary explanation is that masculine identification develops out of covert imitation of paternal behaviour because of strong emotional ties to him as the same-sex parent. But the evidence for this, as Kohlberg (1966) points out, is tenuous; he points to two criticisms: (a) there are very low correlations between measures of masculinity and measures of father-identification, (b) there is very little difference between father-absent and father-present boys. Perhaps, as is suggested here, the child's perception of paternal warmth may be no more than 'a global family predisposition to be warm' (p. 158). The father's warmth, Kohlberg points out, 'does not create the desire to be masculine, it only facilitates it.' (ibid.)

What these findings have produced, however, may be artefacts of the measures or test situations employed. Sears, Rau and Alpert, (1966) working from inferential data (i.e. data gathered from parents rather than from children) found for boys a year younger than Mussen's that they were 'not measuring the same kind of masculinity as either the syndrome (i.e. aggressiveness) or the observer rating.' From their inferential technique, power and nurturance correlated only .10 and -.12 with the IT Scale. The necessity to be quite clear on how data are drawn is therefore apparent.

Furthermore, the nature of what is being measured should be

explicitly stated and operationally defined in sex-role research. In many instances, masculinity and femininity are treated as opposite ends of a continuum, the assumption being that masculinity-femininity is simply a unidimensional phenomenon. The possibility, for example, of a boy being masculine in overt behaviour yet unmasculine in his underlying sex-role orientation is not considered.¹ Failure to recognise the multidimensionality of m-f phenomena confounds systematic appraisal of sex-role development and vitiates the complexity of evaluation.

(iii) Studies using projective tests: In some of the work already reviewed, projective measures have been employed as part of the research design. In these studies resemblances of one kind or another have been the primary focus. Only one study using a projective technique other than doll-play is reviewed in this subsection.

Cava and Raush (1952) examined the adolescent boy's identification with his father, using the Blacky Pictures, a projective device for exploring personality dynamics. Four dimensions of the test - oedipal intensity, castration anxiety, identification and ego-ideal - were administered first with the usual directions, then to be completed as fathers would have responded. Scores for each of the dimensions and for the total were derived. Similarities between boys and fathers were judged on the basis of the boy's responses and those he attributed to his father. The only significant differences between "weak" and "strong" on the five dimensions, were on castration anxiety ($p = <.01$) and total identification ($p = <.03$). Although the findings were not particularly conclusive, the study has relevance for the present investigation in indicating the boy's perception of the interest, values and traits of his father. Furthermore it supports the notion (cf. Sears, Rau, Alpert, 1966) that aggression in the

1. Biller (no date) has pointed out a discrepancy of this nature has been accounted for in terms of a compensatory reaction against sex-role conflict which results in a compulsive self-denial of anything associated with femininity.

parent is more conducive to identification than nurturance.

2. Toy Choice, the IT Scale and Game Preference Studies.

These methods have been increasingly used since the mid-fifties. The most significant early research (Rabban, 1950), with children aged between 30 months and 8 years, attended principally to class differences in sex-appropriate toy choices. 33 were presented with eight male-appropriate and eight female-appropriate toys and asked to select their six most-favoured toys. The data revealed that, from the age of four, boys made more appropriate choices than girls. Boys from working-class homes reached a higher level of sex-role identification than boys from middle-class families by five, but that the latter group did not reach the level until six.¹ Not until five were most (97%) children able to use sex labels correctly - a finding which Kohlberg (1966) believes is due more to stabilisation of sex-role categories than change in role-preference.

The influence of siblings in sex-typing is a topic which has been unusually neglected. But Pauls and Smith (1956)² working with a small number of children aged between 4½ and 5½ investigated sex-role learning using paired pictures of children playing male or female games. Ten boys and ten girls were singletons, eight girls had older sisters, ten boys had older brothers; siblings were no more than ten years older. On the basis of each child's own preference and the perceived preferences attributed by the children to mothers and fathers, sex-appropriate choices were more commonly made by boys and their preferences were closer to perceived paternal preferences than girls' preferences were to mothers. The somewhat puzzling finding that only-children made more sex-appropriate choices than those with siblings deserves re-emphasis.

One technique which has been widely used for the evaluation

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1. This finding is also relevant to the discussion of age-specific manifestations earlier.
 2. This study has been mentioned.

of sex-role preference through toy and activity choices is the IT Scale (Brown, 1956). Results (Brown, 1957) with children aged between $5\frac{1}{2}$ and $11\frac{1}{2}$ showed that boys developed masculine sex-role preference as they grew older. When compared with girls, the boys' choices were sex-appropriate at an earlier age. Hartup and Zook (1960) administered the ITSc to 3- and 4- year-old nursery school children. Their findings confirmed those of Brown, but controverted those of Rabban (1950) on socioeconomic differences; there were no significant differences in the sex preferences of middle-class and lower-class children.¹

In an enquiry into the effects of the sex of the experimenter on the sex-typing of young children, Borstelmann (1961) used a battery of three tests - the ITSc, a pictures test and a toy preference test with children aged between 3 years 4 months and 5 years. Although Borstelmann was concerned with other variables, the most significant fact emerging from his research was that boys made more sex-appropriate choices than girls. The sex of the experimenter - to which Borstelmann had particularly attended - had no significant effect on sex-typing unless the child had learned that different consequences would accrue dependent on the experimenter's sex.

Effects of (a) social class and (b) retardation upon sex-role preferences were reported in 1963. In the former (Hall and Keith, 1963) children aged between eight and ten from upper and lower socioeconomic classes were tested with the ITSc. Boys expressed clearer sex-role preferences than girls, but in concord with Rabban's findings (1950) and therefore in contradiction of Brown (1957) and Hartup and Zook (1960), boys of lower socioeconomic class showed clearer male sex-role preferences than upper class boys. Clark's research (1963) with educable and trainable mentally-retarded

1. Sher and Lansky (n.d.) have pointed out that the fluctuations in neutrality or sexuality may be due to 'attributions of sex-specificity to IT'.

children showed that the ITSc differentiated between boy and girl retardates and that preferences were more highly correlated for mental age than chronological age.

Serious doubts have been cast on the efficacy of the ITSc in recent years and, in particular, upon the sexlessness of the IT figure. McCandless (1961) has pointed out that if a girl considers that IT is male, then her own sex-role preference is not reflected in her responses. Kohlberg and Zigler (1967) reported that almost all boys and half the girls in a sample of preschool children labelled IT masculine. Lanaky and McKay (1963) used the ITSc with kindergarten children, but with IT concealed in an envelope. The results were the opposite of other findings; boys made more feminine choices than girls made masculine choices. The authors reasoned that these responses reflected child preferences more accurately than under standard administration of the test.

Despite the difficulties in interpreting the effect of the IT figure and reconciling obviously contradictory findings, the test has continued to be used (Hall and Keith, 1964), (Hetherington, 1965), (Mussen and Rutherford, 1963), (Epstein and Liverant, 1963). In this present investigation, the IT Scale will be used at the first two levels only (age 5-6, 7-8). Research evidence has cast less doubt on its effectiveness with boys than with girls. For this reason, i.e. because the development of sex-role-preference in girls is not to be examined, the use of the IT Scale seems justifiable in research addressed to within-sex contrasts.

A recent study (Hetherington, 1965) was designed to evaluate the effects of the sex of the dominant parent on sex-role preference, parent-child similarity and parent-imitation. Hetherington, working with 36 boys and 36 girls at the age levels 4-5, 6-8 and 9-11 measured sex-role preference with the IT Scale, parental dominance from parent responses over 12 child-behaviour problem situations (mother or father dominance was ascertained) and parent-imitation from the child's responses to pictures, previously evaluated for prettiness

by the parent - with the child present. Parental dominance, Hetherington records, influenced all three variables - imitation, sex-role preference and similarity to parents. Thus, boys from mother-dominant homes were more feminine sex-typed than boys from father-dominant homes. Further, they acquired more similarities to their mothers independent of sex-typing. There was no significant decrease in the relationship between parental dominance and sex-typing across the three ages 4-5, 6-8, 9-11. Boys from mother-dominant homes, who developed feminine preferences in early years were unable to counteract early maternal influences even when the social pressures to acquire masculine preferences were considerable.

The ramifications implicit in the Hetherington study are far-reaching and it is unfortunate that no comments have yet been published. But, from this study Kohlberg (1966) has drawn two observations: (i) that because boys from father-dominant homes in the Hetherington study have almost exactly the same scores as an unselected sample in the Brown (1957) study and score no higher than a father-absent group (Smith, 1966), father-dominance is not an antecedent of sex-typed values in boys.¹ Paternal warmth, however, as noted earlier, does encourage masculine sex-typing, whereas maternal warmth does not, (ii) mother-dominance, described as a 'deviant condition in American culture' (p. 160) curtails or reduces masculine sex-typing in boys.

Toy preference tests have been used to test the sex-preferences of children. De Lucia (1963) developed a toy-preference test using paired photographs of toys adjudged masculine or feminine. These were presented to the child together with a picture of a child of sex similar to himself. Boy and girl subjects from Kindergarten to Grade 4 (mean age range 5 yrs. 10 mo. - 10 yrs. 0 mo.) were asked which toy the pictured child would choose to play with. Choices made by boys became increasingly sex-appropriate with age, though at Grade

1. In cognitive-developmental theory generalized sex-typed preferences for both boys and girls is acquired by the age of four, modelling on the father (for boys) is consequent on rather than antecedent to sex-typing.

4. there was a slight reversal in the orderliness of this trend. In concurrence with the findings of Brown (1956), Pauls and Smith (1956) and Hartup and Zook (1960) boys made more sex-appropriate choices as they grew older than girls.

The relationship between masculine identification and the extent to which parents accept their own masculinity or femininity was studied in thirty preschool boys (Angrilli, 1960). Boys' preferences in activities and ratings on their personality and behaviour were given by their teachers; parents were placed on an M-F dimension from their M-F scores on the Strong Vocational Interest Blank and the Terman-Miles Attitude Interest Analysis. Both boys and parents were administered a figure drawing test as a further evaluation of masculinity. Three hypotheses (a) that there would be a relationship between the boy's sexual identification and his parent's, (b) that boys acceptant of masculinity would have parents acceptant of their M-F sex-role and (c) that boys rejecting or reluctant in the assignation of masculinity would have parents equally rejecting or reluctant in their respective sex-roles. None of the hypotheses were supported. Angrilli concluded that the psychoanalytic (notably Freudian) view, which affirms there is a causal relationship between psychosexual adequacy or inadequacy in the parent and the quality of the psychosexual identification process in the child is not tenable for boys in the preschool years.

Of particular interest for the present study is the statement that "... sibling constellations and relationships, the training and educational methods used, situational factors external to the parent-child relationship and other influences may play equally significant roles in the shaping of the identification patterns" (p. 337). Stoke (1950) had adopted the same theoretical view and made the point that such factors as biology, familial psychology, social pressures and relationships outside the home are as deserving of attention as oedipal resolution or the organic factor. Angrilli,

however, appears to have been overlooked.¹ The recently-propounded cognitive-developmental view may in fact have been anticipated by Angrilli as it was by Lazowick. Angrilli points out that what early investigators may have been discovering was that boys identify first as males, then they follow 'to varying degrees, the model set down by the culture for the male' (p. 338). The cognitive-developmental view submits that masculine sex-typing in boys precedes identification with the father. The two views are closely similar.

An unusual approach, in which sex-role-preference is viewed as a phenomenon within a same-sex continuum was presented by Lefkowitz (1962). Lefkowitz, cognisant of the 'changeworthiness' of sex-role preference, devised two preference-for-activity forms - one for boys, one for girls - in which deviance and non-deviance replaced the more conventional masculine-feminine dichotomy. Deviation, as Lefkowitz has it, is 'divergence from the mode of one's sex but not necessarily in the direction of the mode of the opposite sex' (p. 43). Several hypotheses relating to salient-parent discipline, nurturance, social status, sex differences in aggression and figure-drawing were tested. 421 children, aged eight and nine and many of their parents participated in the study. Parents were interviewed to determine 'who disciplines?' 'who nurtures?' The social status of each family was recorded on a nine-point scale. CMM (shortened form), the Draw-a-Person Test and a Games and Activity Preference List were administered; aggression scores for each child were obtained from peer ratings. Responses on the GAP List were classified as deviant or non-deviant. Results indicated that boys high on masculine sex-role-preference have nurturant mothers - a finding in reverse of the conclusions of Mussen and Distler (1959) (who found that father nurturance and warmth were related to high-scoring sex-role-preference in five-year old boys) and the postulation of social-learning theory in which the boys'

1. Winch (1962), Bandura and Walters (1963), NSSE Yearbook (1963), Mussen, Conger and Kagan (1963), Kagan (1964), Mischel (1966), Sears, Rau and Alpert (1966) make no mention of Angrilli.

father-derived sex-typing is based on affections which strengthen with age and is reinforced by nurturance. Lefkowitz did not find that the fathers of boys high on sex-role preference were the main disciplinary agents; discipline was shared by parents. On this issue too, the findings conflicted with those of social-learning viewpoint; the boys who perceived their fathers as warm and nurturant did not identify strongly with their male role. Rabban's (1950) finding that boys of working-class parentage exhibited earlier sex-appropriate behaviour than boys of middle-class parentage was not supported. Lefkowitz's sample was, however, drawn from more upper-class families. His data lend support to the relationship between intelligence and sex-role first shown by Terman and Miles (1936). Deviant boys drew opposite-sex figures more frequently ($p < .05$) than non-deviant boys on the Draw-a-Person Test, yet there were no significant differences between deviant and non-deviant girls. In discussing this sex-difference, Lefkowitz submits that sex-role preference thus appears as an important component of sexual identification for boys but not for girls. His final hypothesis, that aggression is an integral aspect of masculinity was not supported from results on GAP.

It has been shown (Terman, 1926) that children's preferences for games provides a valid measure of the masculine-feminine directions of their interests. The Play and Games List (Sutton-Smith and Rosenberg, 1959) is a revised and updated development of the Terman Play Inventory. Initially, the list of 181 items was presented to 133 4th Grade children. 67 items were identified which differentiated between boys and girls on games designated as "liked". Masculine and feminine scales were devised on two validation samples which differentiated between boys and girls at highly significant ($p < .001$) levels. A further validation and extension, reported four years later (Rosenberg and Sutton-Smith, 1964) indicated that the revised test improved discrimination between boys and girls on

their play and games choices. This test continues to be used.

Aware of the problems which "falsability" creates in sex-scale construction, Rosenberg, Sutton-Smith and Morgan (1964) have sought to reduce difficulties by centring their research on opposite-sex items. They have shown that like-sex scales are less-effective as discriminators in sex-role study. 337 4th, 5th and 6th grade children were classified into 'high' and 'low' on both like-sex and opposite-sex scales from the Play and Games List. Their scores on impulsivity, anxiety and neuroticism from three empirical tests were also derived. Results showed that whilst the differences in neuroticism for boys high and low on the masculine scale were slight, the boys high on the feminine scale were more anxious and neurotic than boys low on the feminine scale. The opposite sex scale, the authors report, is the 'better discriminator' of emotional stability or instability than the like-sex scale and it would seem most economical to use the opposite-sex scale in diagnosing sex-role identification.'

In a later study it was reported (Sutton-Smith, 1965) that 'play scales may be a potential diagnostic device for assessing certain types of sex-role appropriateness or inappropriateness...' and that '... the meaning of a response to a play scale varies according to the content of the items and to the subject's sex-role identification.' (p. 66)

The foregoing series of studies has several merits. It ~~meets~~ meets some of the criticism - already made - that many test instruments have not been developed beyond their original formulation; that some provide little more than socially- or culturally-acceptable responses; that (following de Lucia, 1963) validation studies are rarely conducted. Further use of opposite-sex scales over a wider age-range than that hitherto attempted presents interesting and challenging possibilities.

3. Figure-drawing studies

Figure-drawing is a graphic means of communication. This is particularly the case for children. For many years figure-drawing has been used in the evaluation of intelligence (Goodenough, 1926), to test popularity (Tolor and Tolor, 1955), to evaluate masculinity-femininity (Franck and Rosen, 1949) and even as a measure of sex-inversion (Brown and Tolor, 1957).

In more recent times, figure-drawing has been used in sex-role studies with children. The assumption upon which these studies rests is that figure-drawing adequately portrays a preference for one sex over the other or for sex-determined position on an M-F continuum. In the main, the studies indicate that: (i) sex-role preferences for both boys and girls change developmentally and (ii) young boys draw opposite-sex figures first, girls draw same-sex figures first, but the trend reverses with older children. Jolles (1952) for boys aged between five and twelve, found the proportion of boys drawing the opposite-sex figure first was significantly higher for younger boys than for older boys. Weider and Noller (1950, 1953) with two discrete groups of 8-10-year-old and 8-12-year-old children found that (a) girls drew the same-sex parent larger and more frequently than boys and (b) girls drew same figures larger and more frequently than boys. The findings as presented here (i.e. (a) and (b)) are almost identical and suggest perseveration of sex-typing in children of this age. Lynn and Sawrey (1962), in a study of 8- and 9-year-old Norwegian children, found that girls drew the same-sex parent in greater size, in more detail and more frequently than did boys, thus confirming the findings of Jolles and Weider and Noller. McHugh (1963) however, working with over 600 children aged 6-12 found that only at ages 8 and 11, boys drew same-sex figures first, whilst girls consistently did so; the feminine figures drawn by boys, Mc Hugh observed, were more consistently occupied actively than those drawn by girls.

The findings of figure-drawing research reach an unusual degree of consensus in their areas of sex-role and masculinity-femininity. The only doubt which is cast on the validity of these findings comes

from Brown and Tolor (1957) who suggest that figure-drawing may be an inadequate test of identification. It may well be proven at some later point that it is their observation and similar reservations which are the reasons underlying the untimely demise of such an experimental test as the Franck Test, claimed by Lansky (pers. comm.) and Sutton-Smith (1966) to be so promising.

4. Doll-play studies.

Doll-play methods, although used in a number of studies with young children, have not received the same degree of attention as have other techniques. And further, techniques employing unstructured or naturalistic approaches have proved less popular than methods employing semi-structured or structured situations and materials. The reasons for this, as Bronfenbrenner and Rociuti (1960) point out, are the time involved and the breadth of interpretation possible in 'open' experimental situations.

The earliest study using doll-play (P. Sears, 1951) centred upon aggressive behaviour and father-absence. Sears found a difference in physical aggression in children of nursery school age. Boys were more aggressive than girls, with their doll-play aggressiveness directed towards father dolls. Girls' aggressiveness, on the other hand, was directed towards girl and baby dolls. Of interest to the present investigator is the finding that the absence of the father diminished doll-play aggression in boys but not in girls. Beeh too, in a 1946 study found that boys aged six to ten whose fathers were absent displayed reduced doll-play aggression, though father-absent girls showed no such reduction. These findings are consonant with the social learning theory of psychosexual identification. According to this view, the boy's attachment to his father has a strong imitative component. He will reproduce actions or incorporate traits which - in the child's view - are socially appropriate or personally attractive. In the two researches just cited, it is the mother's immediacy and salience which is modelled by the boys; for they have no other parent

available. Because the conventional patterns of masculine aggression are denied them, the father-absent boys model the available parent and reproduce feminine-type (i.e. reduced) aggressive behaviour.¹

The work of Lynn (1959, 1962) and his associate (Lynn and Sawrey, 1959, 1962) has centred upon the effects of father-absence on sex-role identification in boys.² The Structured Doll Play Kit, created by Lynn, has been used on various occasions since 1955, but by a limited number of investigators. It has been described as a cleverly-designed device (Ross, 1965) with advantages not contained in the usual types of thematic picture tests (Moore, 1965). Both reviewers, however, believe that caution needs to be exercised in interpretation and that the efficiency of the scoring system needs further confirmation than that given by the author. The first report of this instrument (Lynn, 1959) is contained in a theoretical paper which examines sex-differences in the development of masculine and feminine identification; it is in this paper that the distinction between sex-role preference, sex-role adoption and sex-role identification is drawn. The first empirical study using the Structured Doll Play Kit was reported in the same year. Lynn and Sawrey (1959) studied Norwegian children aged 8-9 whose fathers were absent in the Merchant Navy. Using mother-interviews and structured doll play, the investigators found that father-absent boys, when compared with girls and controls, exhibited poorer peer adjustment, greater immaturity and compensatory masculinity. The reasons were seen to lie in the behaviour and expectations of their mothers. When compared with control-groups mothers they were more

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1. Diminished aggression and fantasy in doll-play sessions was found to be a characteristic of father-absent preschool boys (Sears, Pintler and Sears, 1946). Stolz (1954) reported nonaggressive, effeminate behaviour of preschool-Grade 2 boys whose fathers were absent during their first year of life.
 2. The reason for lack of acknowledgement of Lynn's work is puzzling. His work is either overlooked or ignored by three major texts, (Bandura and Walters, 1963), (Mussen, Conger and Kagan, 1963), (Sears, Rau and Alpert, 1966). Neither Mischel (1966) nor D'Andrade (1966) refer to Lynn.

protective, less involved in community affairs and more concerned with obedience and politeness - characteristics believed more appropriate for girls and women than for men and boys.

A study (Emmerich, 1959) in which still younger children (aged $3\frac{1}{2}$ -5) were observed in structured doll play situations with child (i.e. self) dolls, father dolls and mother dolls provided evidence concerning the strength of parent identification. Similarity between the child's perception of the parents' nurturance-control and the child's nurturance-control was assessed in doll-play situations involving parent dolls and the 'self' doll; the child's own nurturance-control was indicated by the child's actions toward a baby doll. Boys, but not girls, significantly chose the parent doll to identify with and perceived their fathers as more controlling and their mothers as more nurturant. Their perceptions were in concord with responses from fathers and mothers on a questionnaire designed to assess nurturance and control.

Doll-play was used (Hartup, 1962) in a study of parental imitation in 3-5-year-old children. Sex-role preference as measured by the IT Scale was correlated with the degree to which chosen dolls represented the behaviours of like-sex or opposite-sex parents. Hartup deduced from his findings that girls become feminine partly because they imitate their mothers more than fathers, boys become masculine, not because they imitate their fathers more than their mothers, but because they are independent of the tendency to imitate their same-sex parent; i.e. they can imitate a wider masculine role rather than the more restricted model which the father presents. The learning tasks confronting the two sexes are fundamentally different. And, of the two sexes, the boy's task is the more difficult.

Conclusion

In this review section, our concern lies with the various interpretations of sex-role identification and masculinity-femininity as dependent variables. Difficulties arising from differences in terminology

and sharpnesses of definition have been raised. Previous research has been grouped into four major sections. Problems of overlap and classification have arisen in the explication and evaluation of findings within these categories. But, to counterbalance these difficulties, each of the researches has been included in a chronological appendix, (see Appendix II) which contains, in summary form, salient information with respect to age and sex of Ss, instruments used and findings of importance within the frame of reference set for the present study. The effects of the independent variables, intelligence, family size and ordinal position are discussed in separate sections.

The proliferation of instruments and techniques used, the various notions held about sex-role identification and masculinity-femininity are apparent in both review and appendix. Research has produced a fragmentary, somewhat baffling array of findings. Some authors - too few - concede that methodological weaknesses and limitations exist in their work and discuss them; findings appear to contradict one another. Some explanation of these anomalies seems necessary. (1) Many age-specific tests are used; often they are not so described. (2) Some tests, though not age-specific, have been used with only one age-group or one sex and inferences on a too-wide front have been drawn from them. (3) Psychosexual information in some tests is vitiated by socially-modal or culturally-modal responses.¹ (4) In some cases, no clear operational definition is apparent.

A further limitation, discussed only by de Lucia (1963) is that there have been too few attempts to refine, modify or extend techniques already in use. Many researches, this is to say, are only "one-shot" exercises. But there are two notable exceptions. Since 1961 the IT Scale has been subject to closer scrutiny (Borstelmann, 1961), (Sher, 1965), (Sher and Lansky, undated) and the Play and Games Scale (Sutton-Smith and Rosenberg, 1959), (Walker,

1. Kohlberg (1966) remarks that responses on masculinity-femininity are ~~shadily~~ faked in many cases.

1962) has been used on four other occasions since its inception. These reasons have contributed to the selection of these two instruments for the determination of sex-role preference and masculinity-femininity in the present study.

CHAPTER VI

THE INDEPENDENT VARIABLES

Family Size

The fact that '... there have been surprisingly few studies of the effects of family size upon socialization practices and child behaviour' (Clausen and Williams, 1963) is understandable. Family size, as an organizing concept, is diffuse; it conceals more than it reveals, for within it such significant characteristics of the family as sex composition, distance between siblings and ordinal position are consistently obscured. There is no worthwhile study in the literature of sex-role development which examines relationships or effects within such oversimplified conceptual frameworks as large-small or large-medium-small comparisons.¹ Those studies which have been addressed to family size as a contributing variable (Koch, 1955), (Brim, 1959), (Rosenberg and Sutton-Smith, 1964) have been explicitly centred upon small families of specific size and composition.

For present purposes, family size can be treated summarily. The one study (Fauls and Smith, 1957) concerned with the only child has been dealt with in Chapter V; the two-child family literature is reviewed in the present chapter within ordinal position; the father-absent family follows it. These three, then, are size and structural variables which are employed in this present investigation.

Ordinal Position

Introduction

It is only in comparatively recent years that birth order/

1. Although Rosen (1961) found higher achievement motivation in children from smaller families than from larger, interaction effects with social class and ordinal position also appeared.

ordinal position has been the subject¹ of really close enquiry. Yet it has been recognized in many societies and over the centuries that birth order has been a primary influence in the ascription of social and familial status. The emphasis on primogeniture, written in the Book of Genesis (Genesis, 43:33), '... the first born according to his birthright and the youngest according to his youth...' exemplifies the grace-and-favour licence which persists as some kind of implicit social corollary - even down to the present time.

Francis Galton (1874) was the first to record that there was a preponderance of first-borns reaching positions of eminence in science; his examples were European and British. His observation was confirmed some time later for American men of science (Cattell and Birchall, 1921). Four years later Terman's study (1925) indicated that the highly intelligent in scientific and other pursuits were overweighted with first borns. Adler (1927) stressed the advantages of being a first born '... the attitude of the second born is similar to the envy of the poorer classes. There is a dominant note of being slighted, neglected in it.' (ibid.) This view, however, was not held by Rank (1929) who stressed that the last-born, always appearing as the hero held the most advantageous position. His advantage stems from the fact that, in having access to the mother 'he is like the father with whom he alone is able to identify himself' (ibid. p. 112-113).

Freud too (1938) discussed the effects of birth-order, but only in terms of sibling rivalry. The child, displaced by the birth

1. A distinction between birth order and ordinal position drawn almost thirty years ago (Krout, 1939) appears to have eluded many more recent writers. Krout began with the preposition that 'attempt to explain behaviour in terms of non-psychological factors such as birth order is thoroughly futile.' He classified siblings by ordinal position using birth intervals, sex of S, sex of sibling preceding and following S and family size in a study of 1093 Ss from 432 families. Relationships were ^{explored} developed between ordinal position and personality traits.

of another, may react to the new situation by tactics ranging from 'profound embitterment' to replacing the disappointing parent with the new sibling as a love-object. And, in psychoanalytic writings at large little attention is given to the influence of siblings in socialization and sex-role achievement.

Harris (1964) has speculated that Adler and Freud came to their theorization about the frustration and jealousy of sibling rivalry (Adler) and the oedipal situation (Freud) because of their birth-positions in their respective families; Adler was a fourth-born child and Freud a first-born son.

Much of this writing was more speculative than systematic; the little empirical research there was was of doubtful quality. Interest however, in the 1920's had quickened. Burt (1925) indicated a relationship existed between birth-order and delinquency; Thurstone and Jenkins (1929) and Goodenough (1930) sought to find a relationship to intelligence. Other studies which sought to establish relationships between birth order and such diverse phenomena as academic achievement, political attitudes, happiness, emotional stability, manic-depressive psychoses, stuttering and atheism were reviewed - none too kindly - by Jones (1933). Jones indicated that many of the research studies had neglected three important criteria: ordinal position criteria, family criteria and cultural criteria. For the first (i.e. O.P. criteria) too little concern had been given to anything except first-born and later-born Ss; for the second (i.e. family criteria) family size as it varied with socioeconomic status was too frequently disregarded. Jones pointed out that as more later-borns came from incomplete families, it was conceivable that their lower status may have been due to deficiencies in the parents and in their socioeconomic level rather than simply to their being later born. For the third (i.e. cultural criteria)

different cultures accorded different emphasis to sibling status.¹

Four years later, Murphy, Murphy and Newcomb (1937) reviewed a smaller number of research articles on birth-order.² They indicated that research was uncoordinated and that the wide range of dependent variables (e.g. intelligence, academic achievement, happiness, political attitudes, emotional stability etc.) provided an equally wide range of contradictory findings.³

These two reviews effectively curbed research for a considerable period. But the twenty-year moratorium proved beneficial. More recent work has shown greater sensitivity to research design, greater willingness by researchers to contain enquiry within particular theoretical perspectives.

Recent Literature Reviewed

As it is now understood, ordinal position is 'the sequential position of a person among his or her siblings with respect to order of birth.' (Warren, 1966) Simple though this definition is, it is deceptive; for the range of interpretations is considerable. Some investigators compare first-born with later-born children, some first-born with youngest, some first half of a sibship with the second half. And the 'fit' of the singleton into birth-order studies adds another dimension. In some instances, the singleton is classed as a first-born,

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1. Jamieson (1966), commenting on the Japanese finding (Yoda and Fukatsu, 1963) that first-borns tend to be more self-controlled, less talkative, thorough in work, shun company, while second-borns are more talkative, obstinate, dependent, opportunistic and jealous, suggests that the findings of increased dependence in second-borns which conflict with the most common first-born-dependence link of many western studies (e.g. Schachter, 1959; Haerberle, 1958) may be due to cultural differences.
 2. Jones had surveyed two hundred articles; Murphy, Murphy and Newcomb only fifty.
 3. Krout (1939) wrote that virtually every problem of socio-psychological importance had been studied in terms of birth order.

in some he is compared with the first-born,¹ in others he is excluded altogether.

Much of the difficulty which arises in attempting a comparison of the effects of birth-order develops from this wide range of interpretation. Furthermore, investigators working upon problems involving birth-order develop their views from one of two quite different theoretical positions. Those studying physiological determinants are '... likely to look for physiological origins for birth-order differences...' (Warren, 1966). Intrauterine and perinatal influences, the age of the mother at the child's birth and the number of previous pregnancies are all relevant (Weller, 1965). From the other position, investigators (Sears, 1950), (Whiting and Child, 1953), (Lasko, 1954), (Sears, Maccoby and Levin, 1957) adopt the view that the effects of ordinal positions have their origins in family interaction and in the child rearing practices which parents follow. In this context, physiological determinants such as the age of the mother are of no heavy consequence; it is social elements which these theorists embrace.²

The point has been made (Sears, 1950) that 'ordinal position is an ecological variable not a psychological one.' That ecological considerations have relevance for child behaviour enquiry has been richly demonstrated in one American study (Barker and Wright, 1954). A few researches in New Zealand (Adams, 1953), (Ritchie, 1956), (Jane Ritchie, 1957), (Havighurst, 1954) have placed the child into environmental settings far removed from the brass and wire world of the laboratory, but these are far too few in number and do little more than introduce a promising strategy for future research in this country.

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1. Though, as Warren (1966) indicates, there is at least one study (unnamed) in which the singleton is more like the youngest than the oldest child.
 2. Harris (1963) has pointed out that child development has 'been more ready to incorporate social and sociological principles and concepts.' Child development emphasizes that interpersonal relationship is central to human development.

As far back as 1950 it was suggested that, in due course, it might be necessary to turn back to the exact circumstances of the child's rearing and '... to the immediate stimulatory forces acting upon him...' (Sears, 1950). A step in this direction was taken when Bossard and Boll (1955) studied 879 children from 100 large families. They enquired into role-types predetermined by family density, interactional density and the availability of role-models. Their conclusions are best given in detail:

"The first ones appear to develop patterns of responsibility because they are first and are followed by younger and more helpless siblings. The next ones, finding this role pre-empted, seek recognition by making themselves agreeable. They do not seek to wrest control from the older children: they compete with it or supplement it with their personal charms. The next children, finding these two roles pre-empted, turn from the family to the community. They become social-minded and socially ambitious. Those that follow in turn have to turn to a new avenue of achievement. These turn to the schools. They become the scholars, the studious ones, the sophisticated, the intellectuals. Finding all of these avenues under active cultivation, the next child withdraws from competition. This is the family isolate. Or he may not withdraw his presence - only his sense of responsibility - these are the irresponsible ones who participate but let others hold the bag... Finally at the end of the line is the terminal child, either pampered into relative ineffectiveness or wearing the magic boots to overtake the older ones."

Interesting though this classification may be, it does not reveal the methodological controls necessary in the study of ordinal position. Variables such as age-distance, sex patterns within sibships, and social class merit more attention than they are given in the quoted study.

The complexity of sibling structure is brought home most clearly even if two-child families are considered. Here, four types of family are possible - older boy with younger girl, older girl with younger boy, boy with boy and girl with girl. Thus, whilst ordinal position allows comparisons between first-borns and second-borns to be drawn, differentiation between sexes and birth-order

increases the range of comparisons considerably. An outstandingly successful series of studies (Koch, 1954, 1955, 1956)¹ has taken ordinal position, sex, sex of sibling and space between siblings into account. These studies, concerned with relating such personality variables as mental ability, attitudes to parents, attitudes to work and tomboyishness/sissiness to sibling structure, are outstanding examples of research procedure.

Koch studies 384 5- and 6-year-old normal, white U.S. born children from intact, urban, two-child families. Twenty four sub-groups, each composed of sixteen children, based on sex, sex of sibling and ordinal position were drawn. In addition, the age between siblings was trichotomized into groups: siblings were separated by one to two years, two to four years and four to six years.

Despite the fact that the research was controlled only in a general way - i.e. for white, complete, middle-class families, there is little in Koch's work which calls forth criticism. Two relevant major findings which emerge from her work are (a) that where siblings are spaced at a distance greater than four years apart and where the sibling was opposite-sex, considerable behavioural differences appeared (e.g. a 6-year-old boy with a 2-year-old brother would be more responsible and less aggressive than a 6-year-old boy with a 2-year-old sister). (b) First-borns are more responsible, less aggressive, display more intellectual curiosity and have stronger consciences than second-borns. In addition, they are more sensitive, more concerned over defeat, more competitive in peer relationships and, as assessed by teachers, are more self-confident.

Koch's appreciation of the significances of sex- birth-order and age-spacing influences the design of the present study: in this, each of these variables will be examined insofar as it

1. For the most comprehensive explication, see The Relation of Certain Formal Attributes of Siblings to Attitudes Held Toward Each Other and Toward their Parents. Monogr. Soc. Research in Ch. Devel. XXXV, 4, 1960.

bears upon the ease or difficulty with which sex-role learning is accomplished.

Brim (1958) tested the hypothesis '... that interaction between two persons leads to ... the incorporation of elements of the role of the other into the actor's role...' In a reworking of Koch's data, he was able to indicate that interaction between siblings led to the assimilation of the more powerful role by the weaker. Boys with older sisters, for example, tended to be more feminine, more timid and less aggressive than boys with younger sisters. Girls with older brothers, on the other hand, were more masculine, more aggressive, more ambitious and academically more competitive than girls with younger brothers. For boys in two-child families, Brim found that a rank-order of masculinity could be established on the basis of ordinality. Thus boys with older brothers were ranked first, boys with older sisters fourth, boys with younger brothers and younger sisters second and third respectively. It would seem that Brim's assimilation hypothesis, if based simply on sibling power is difficult to substantiate: the sex of the sibling as well as the birth-order (which is power-conferring) is a further factor which merits attention.

Of particular importance for the present study is recent work by Sutton-Smith and Rosenberg (1964, 1965) who, intrigued with findings that New York second-borns react like first-born children elsewhere (Glass et al., 1963), (Sarnoff and Zimbardo, 1961) examined ordinal position as 'an ecologic variable' (Sears, 1950). They administered the Anxiety Scale (Children's Form), an Impulsivity Scale and a Play and Games Scale to 900 children aged 9 to 12. Protocols were analysed for 19 only children, 134 from two-child families and 199 from three-child families. Their findings concur broadly with those of Koch and Brim, but argue more emphatically that in the 'accident of family structure,' ordinal position affects such traits of personality as anxiety and sex-role identification very significantly. In the two-child family - of

particular interest in the present study - both boys and girls with younger same-sex siblings were high on anxiety; those with younger opposite-sex siblings were low on anxiety. In the three-child family those with two younger same-sex siblings were low on anxiety; those with two younger opposite-sex siblings were high on anxiety. As the authors remark, '... increasing siblings beyond the two-child family dramatically alters the contribution of ordinal position to personality development.' (p. 318)

On the question of sex-role identification, same-sex siblings facilitate the development of masculinity in boys and femininity in girls. But there is a sex-differentiated effect where, in three-child families, the presence of two opposite-sex siblings accentuates masculinity for boys. The effect does not, however, hold for girls - a further refutation of Brin's assimilation hypothesis.

Too many of the recent studies, these authors protest, compare first-born with all non-first born without due regard for family size, thus possibly concealing more information than they reveal.¹ A later study (Sutton-Smith and Rosenberg, 1965) from a scoring of MMPI scales with college students, shows that though ordinal position is important in the early years, the sex of the sibling becomes the more important factor between the ages of ten and twenty.

The fact that family environment for first- and second-born children is different has been regularly reiterated since the early nineteen fifties. With the first-born, parents have less child-rearing experience; they are more anxious, more concerned with the welfare of their first-born and, because of frustrations associated with feeding, inculcate greater dependency (Sears, 1950). Lasko (1954) believes that the warmth and child-centredness of the family environment for the first child reinforces his normal dependency.

Sears, Maccoby and Levin (1957) have taken this further. Working from reports from 379 mothers of five-year-old children,

1. Bossard and Boll (1955) indicated that ordinal differences become more apparent as family size increases.

they illustrate that differences according to birth-order do exist in the way children are reared. The mothers indicated for example that (i) there was a diminishing delight in pregnancy as the family size increased from one child to three ($p < .01$), (ii) there was a diminishing number of breast-fed babies as family size increased from one to three ($p < .01$), (iii) first-borns experienced more discipline and more permissive behaviour, (iv) parent behaviour was more inconsistent with the first-born.¹

This latter point has been taken up by Schachter (1959). Although Schachter's work has been singularly influential in generating interest in ordinal position and affiliation, his research contravenes many of the canons of research-design already mentioned: first-borns and only children are treated as one category; this first-born/only category is compared with later-born; there is little concern with family size; age-spacing and sex of siblings are ignored; his subjects are all female college students.

Schachter speculates that it is the uncertainty, the inexperience, the tenseness of the new mother which promotes anxiety and tension in the child. Because of the obvious simplicity of the situation, Schachter's own explanation is given:

"... baby, pin pricks baby, baby is scared, screams - mother hears scream, rushes to baby, investigates, removes pin, kisses sore spot, caresses, fondles, soothes and so on. In short, people do serve as anxiety reducers for one another." (Schachter, 1961, p. 43)²

Schachter goes on with the notion that there might be testable variables between first- and later-born children:

"... with her first child, a mother is undoubtedly more ill at ease and more worried than she is with her later children. She probably responds to more signals, responds more quickly, stays longer and generally does a more effective, all-round job of reducing anxiety with a first child than with later children. By the time she has had her second or third child,

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1. Distinctions should be made, however, between information derived from experimental or observational methodologies and that from mothers' reports. Such reports are anamnestic and 'represent self-descriptions by extremely ego-involved reporters' (Yarrow, 1963).
 2. This quotation, used in a different context, appeared also in Chapter IV.

besides having less time to pay attention, she is certainly more blasé and more sophisticated about the business of child rearing..." (Schachter, *ibid.*)

There is one significant point which deserves mention in this appraisal of Schachter's work. He has attended to the differences in the mother's care of first-born and later-born children; he is not concerned with differences in mother's care given to boys and girls. This remains unremarked upon in the literature. Yet, for the purpose of this present study, it is a notable omission. Moss has indicated, for example, that from the earliest weeks, boy babies are more irritable than girl babies: they cry more, they fuss more. Girls, when consoled, quieten down; boys continue crying. Thus the girl's complaisance reinforces maternal solicitude; the boy's intractability, on the other hand, provokes maternal neglect. Difficulties of identification for boys may therefore be seen to have biological as well as cultural origins. In fact, as one discussant wryly remarked, 'we might even speculate that the order of civilization... is based on the activities of irritable men and acquiescent women' (Sutton-Smith, 1966).¹

The writer (Veroff, 1960) jocularly suggests that, with the appearance² of Schachter's book 'an old chestnut in social research ... suddenly emerges as one of great consequence.' Undoubtedly Schachter has provoked enquiry. Research has proliferated. Again, however, much work is concerned with birth-order rather than with ordinal position - the distinction, to reiterate, which was first made in 1939. Such diverse topics as teaching style (Solomon, 1965), age at marriage (Murdock, 1966), the participation of Peace Corps volunteers (Amilla, 1966), affiliative needs (Connors, 1961), (Staples and Walters, 1961), (Dember, 1964), (Singer and Shockley, 1965) indicate that the criticism of the 1930's (Krout, 1939) is still largely unheeded.

1. APA Colloquium, Chicago, 1966.

2. First published in 1959 in USA.

Kamneyer (1966) is one of the few whose work has been directed to examining relationships between birth-order and sex-role. Kamneyer's subjects - 232 unmarried university women, completed a structured questionnaire designed to measure orientation to feminine role behaviour and beliefs about female personality traits. The findings showed first-born girls as holding more traditional beliefs than later-borns. Kamneyer suggests that ordinal differences may be linked to cultural role expectations; the first-born, he suggests, is likely to possess some awareness of his importance. 'For the first-born this may result in greater dominance and motivation.' In accord with other researchers (Sutton-Smith, Roberts and Rosenberg, 1964), (Rossi, 1965) Kamneyer suggests that first-borns may be thought of as 'cultural conservators'.

Conclusion

On account of the interest which has been shown in ordinal position, it stands as a variable deserving further examination in sex-role identification. Certainly it is a significant behavioural determinant for girls and women, for it is upon them that much research has been centred. The position remains unclear for men and boys however. And, it is for this reason of concern in the present investigation.

Father-absence

Introduction

There is an adequate literature on faulty paternal relationships in the aetiology of delinquency (Thrasher, 1927), (Spinley, 1950), (Glueck and Glueck, 1950), (Nye, 1958), (Peterson, et.al., 1959), (Gold, 1963), (Fraser, 1968)¹ and psychosexual deviation

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1. Fraser, (1968) found parent-adolescent relationships were significant correlates of conduct in a study of 282 adolescent boys. Twenty-eight relationships were analysed in terms of (1) acceptance-rejection, (2) parental disposition, (3) parental discipline, (4) freedom and responsibility, (5) parental information and advice. 68% of mother-adolescent relationships and 56% of father-adolescent relationships showed significant linear relationships to delinquent behaviour.

(Bieber, 1962), (Mages, 1963), (Shields, 1966). There is a body of literature in which the arrogation of function by the mother (Wylie, 1942), (Strocker, 1946), (Corer, 1959) and matricentrism in westernized societies (Elkin, 1946), (Josselyn, 1956), (Ostrovsky, 1959), (Rohrer, and Edmondson, 1960) is persuasively argued. But father-son interaction and the influence of the father on the son have been less effectively pursued. In many source books in child development, for example, the importance of the father for his children is quite inadequate. And it is to these books that many of those whose work is with children turn for information.

Reasons for the omission of the father lie principally in:

(i) an assumption - explicit or implicit¹ - that the mother's custodianship in infancy and early childhood places her in a considerably stronger position than the father for influencing the development of the child (boy and girl) at all ages; (ii) a well documented literature on the dire psychological consequences of separation from and deprivation of mother (or mother-surrogate) contact; (iii) the relative inaccessibility of the father vis-a-vis the mother as a source of information about children; (iv) the limited number of studies in which paternal role has been studied.

The Literature Reviewed

Although the importance of father-son relationships has been emphasised in major theoretical explications of the development of sex-role identification (see Chapter II), the number of studies which deal with paternal effects is very limited. In one judgement (Biller and Borstelmann, 1967), it is believed that in most studies there are methodological shortcomings, due to one of two causes: (i) disregard for individual differences in intelligence and physique,

1. Sears, Maccoby and Levin (1957) indicate that as science has been a masculine preoccupation and child-rearing a feminine, "... men have always tended to dissociate themselves from female functions." (p. 2) Their study is concerned with the interview-responses of 379 mothers. (Note: of 25 persons engaged in their study, 18 were women).

(11) the interpretive problems which result from the sources of parent behaviour and boys' masculinity not being independent. In the present study, the most significant of the researches concerned with paternal influences on sex-role development are discussed in Chapter V and annotated in Appendix II.

Several studies have followed the method of assessing the significance of the father in sex-role development through comparisons of father-absent and father-present groups. Bach (1946), working with 35 average intelligence, lower middle-class children aged between six and ten years found those who had been separated from their fathers when aged between one and three expressed more idealized, feminized views of the father in doll play situations than did a control group of children. Sears, Pintler and Sears, (1946) found that preschool boys whose fathers were absent were less aggressive in doll play than boys whose fathers were present. This finding was confirmed in a later study (P. Sears, 1951) with 150 five-year-olds; the father-absent boys were not only less aggressive, but they were more feminine and less clear on male sex-typing than father-present boys.

Stolz et.al. (1954) used mother and father interview schedules and child observations in an intensive study of a small group of 35 children whose fathers had been absent on war-service during the infancy and early childhood of their children. The children found difficulty in relating to fathers on their return; they were more hostile, more dependent, more anxious, more effeminate than control group children.

Billler (1967) found that non-availability of a male adult model limits the development of a masculine self-concept in boys, particularly where little value is attached to being a male. Six-year-old-Negro boys (n = 15) and white boys (n = 14) were studied; those whose fathers were present, irrespective of race, scored significantly ^{higher} better on the IT Scale than the father-absent boys.

Thus far, the studies reviewed have revealed reduced masculinity in young father-absent boys. Nash (1965) has suggested that the critical periods theory, discussed in Chapter III may be important in masculine development in these early years. He says that there is some evidence that '... the process of identification with the father may be seriously impaired if the father is not present in the preschool period.' (p. 285) Carrying this supposition a stage further, Nash concludes that '... it is at least feasible that infants are attached to parents by an imprinting phenomenon, too, and that the early presence of the father may be necessary if this process is to include him.' (p. 285)

Granted that father influence is important in early childhood, the question may be asked: what of the later years? Lynn and Sawrey's study¹ (1959) carries the main burden of evidence. Here it is indicated that boys in the middle years of childhood whose fathers were absent nine months of the year showed greater immaturity and a higher degree of compensatory masculinity² than did their control group. In a recent study with 40 boys, mean age 15 years, Barclay and Cusumano (1967) estimated field dependence - field independence using Witkin's Rod and Frame Test. Field dependence was assumed to represent femininity, field independence masculinity.³ Father-absent boys (n = 20) were found to be more field-dependent than father-present. No significant differences were found on the Gough Fe Scale which the authors attribute to '... compensatory drive toward hyper-masculinity in the father-absent group.' (p. 8) Compensatory adjustment, they submit, probably occurs at an earlier age than the testing was conducted, thus accounting for the nonsignificant differences in results.

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1. Fully reviewed in Chapter VI.
 2. This characteristic occurs in boys who, masculine in overt behaviour, are immature in their sex-role orientation. Their response to sex-role conflict is a compulsive denial of all things feminine, best described as a 'compensatory' expression of masculinity.
 3. Witkin (1962) consistently found females more field-dependent than males.

Conclusion

The research reviewed consistently represents the father-absent boys as being at a disadvantage in sex-role development. Several features, however, deserve mention. First, in many studies listed, father-absence is either loosely defined or, still worse, no operational definition is given at all. Second, the assumption that the father is the masculine model for the son ignores (a) the availability of alternative models; (b) the continuance of contact with (male) siblings; (c) the postulation (Lynn, 1962) that girls identify with the mother, boys with the male stereotype. Finally the notion of compensatory masculinity needs further confirmation and clarification. There are many gaps in the understanding of absence/presence of the father and the process of sex-role identification, not the least of which is the virtually unmapped period between the years five and twelve.

Social Class

Introduction

From the earliest times in New Zealand's history, 'class' has been an obtrusive social element. Wakefield, in his utopian scheme for colonising the new land, dreamed of transplanting 'a vertical slice of English society' to the new land. But, in the eventual scheme of things, the dream never fructified: the social spectrum, as it developed here, was foreshortened at both ends. There was no aristocracy, there were no paupers.¹ And, as Chapman (1952) has pointed out '... the labouring class sent by the New Zealand Company ... would do more to determine the beliefs and outlook of the area than the (eighty) owners who eventually arrived - however loudly money talked.'

In the sixties and seventies, the population increased five times in size and the utopian ideal - classlessness - provided strong political capital. So strong, in fact, that the Premier, even as

1. See overleaf.

1. ADULT MALE POPULATION OF NEW MUNSTER, 1848.

<u>Class</u>	<u>and Occupation</u>	<u>Number</u>
PROFESSIONAL:	Clergy, military officers, surgeons, surveyors, lawyers	84
CAPITALISTS:	Landed proprietors, merchants, farmers, manufacturers, brewers, millers, retail dealers, shop- keepers	<u>373</u>
		<u>457</u>
EMPLOYEES:	Clerks, overseers	106
LABOURERS:	Mechanics, craftsmen, farm labourers, carriers, fishermen, mariners, servants, pensioners	2098
NO CALLING:	Strangers and visitors	13
	Paupers	<u>0</u>
		<u>2207</u>

late as 1887 emphatically denied 'that there are no classes separate from one another in this colony. I apprehend that we are all on a level.' (NZPD, 1887)

But the concept of equality, relevant as it was (and is) in political strategy, does little but obfuscate 'social class'. Social class is an enduring and inescapable phenomenon. Despite the tedious characterization of New Zealand as a 'classless' society, - social homogeneity is more illusory than real. Whatever the criteria - occupation, distribution of wealth, housing, educational level, environment - and whether these are appraised singly or in combination, the ineluctable conclusion is that social class differences are clearly discernible in New Zealand. Here then, we have an identifiable characteristic which may prove fruitful in behavioural research of the present kind.

In many aspects of child development research, class differences have proven to be productive variables. The concept of social class is useful, furthermore, because it captures and abbreviates the interplay of a wider number of variables which 'create different basic conditions of life at different levels of the social order' (Kohn, 1963). In matters of affection, authority, aspiration and parent role, clear differences have emerged for working-class and middle-class. (Kohn and Clausen, 1956), (Miller and Swanson, 1958), (Kohn, 1959), (Kohn and Carroll, 1960), though, as has more recently been pointed out (Bronfenbrenner, 1961), there has been a narrowing of the gap between these two social classes in terms of their child rearing habits. Elsewhere Bronfenbrenner has concluded that this 'cultural lag' in the adoption of more enlightened child-rearing techniques by the working-class is attributable to differential access to media of communication. (Bronfenbrenner, 1958)

In very general terms, the child from the working-class home has suffered by comparison with his middle-class peer; he must be more obedient (Kohn, 1959), more heavily disciplined (Davis and Havighurst, 1946) and, though his mother is more supportive, his

father is less so (Kohn, and Carroll, 1960). Research, particularly within the last decade, has provided a reasonable stock-in-trade of class differences in child rearing. In some instances, contradictory results have been produced: but these are attributable, as Clausen and Williams (1963) have pointed out, (i) to failure to conceptualize just what it is within social class that is relevant to child rearing and (ii) to the focussing on aspects of infant- and child-care practices in the literature of class-linked differences which are the 'least stable and least relevant to personality outcomes in modern society.'

Little work has been done on class-links with identification however. Kohn and Carroll (1960) have said: 'From what we know of the different patterns of role allocation in middle- and working-class families, we should expect the problems of identification to be different for working- and middle-class children.' Middle-class boys, as they see them, should find it easier to identify with their fathers because they feel they can turn more easily to them than can the working-class boys. Further, the working-class father is more prone to ignore his son and his relationship with him is more closely tied to the imposition of restraints in an environment where the parents, in contrast with the middle-classes, almost never tell their sons to 'try to act like father'. This is the situation which is symptomatic of the working-class boy's difficulties in identifying with his male parent.

Surprisingly little research has emerged on the effects of social class on the sex-role identification of children; there are only three studies which will command attention. One reason for this deficiency can be drawn from the observation that investigators have too rarely taken the trouble to collect such data as are contained in class and cultural variations (Bronfenbrenner, 1963). For this reason and for further enquiry into the differences postulated above (Kohn and Carroll, 1960), social class is to be included as a

potentially productive variable in this present work.

The Literature Reviewed

Rabban (1950) studied sex-role identification in three hundred boys and girls aged thirty months to eight years. He used preferences for sex-typed toys to measure (a) awareness of self as masculine or feminine; (b) sex differences in clothing and hair style; (c) desire to be a mother or a father. Boys showed clearer preference patterns than girls through all ages; sex-appropriate patterns appeared earlier in lower-class than middle-class children particularly among girls of the lower-class.

Hartley (1960) investigated concepts of male and female roles held by 157 children aged 5-11 by using projective questions and pictures. Although her research was directed primarily to the differences perceived between men's and women's roles, the expected finding that both sexes, irrespective of social class, perceive the female role as domestic and the male role as a work-function role has less relevance for the present work than a secondary finding which has escaped the attention of other research workers (Kohlberg, 1963), (Oetzel, 1966), (Sears, Rau and Alpert, 1966). This finding reports that boys from lower-middle-class and working-class homes assigned nontraditional domestic roles to men more significantly than did boys from upper-middle-class homes ($p < .01$). Because the difference held, though less significantly ($p < .05$) for girls, Hartley concluded that the class variable is of considerable importance in the child's perception of adult roles.

Hall and Keith (1964) made use of the IT Scale (Brown, 1956) to study the relation between sex-role preferences and socioeconomic class in forty-four boys and forty-four girls aged eight to ten. Two schools from contrasting ecological areas were chosen to provide high and low socioeconomic groups. The results showed that while girls of higher socioeconomic status produced more feminine scores than girls of lower socioeconomic status, the difference between their

mean scores was not significant. Boys, on the other hand, when compared for high and low socioeconomic status produced results which were statistically significant ($p < .02$); two-thirds of the lower-class boys achieved maximum (masculine) scores, whereas only forty-one percent of upper class boys did so.

Conclusion

Social class, defined as 'an aggregate of individuals who occupy broadly similar positions in the scale of prestige' (Kohn, 1963) is a variable upon which very little attention has been focussed in sex-role research. It is important to note in the slender range of studies reviewed that findings are at no point directly comparable, for each investigation has been directed to a quite different dimension.

In other child-rearing research, 'class' has been a useful synthesising concept and, in the light of the present New Zealand situation, it may provide valuable insights into the development of sex-role identification. Rabban (1950) indicated that lower-class boys encounter less feminizing, less formal training and are less dominated by mothers. In upper-class homes, boys find more difficulty in apprehending the father's occupational role (Parsons, 1950); with them, there is a tendency for mothers to be more salient as models, to exercise more authority and to be more acceptant of feminine behaviour. Whether or not these conditions obtain equally in this purported stronghold of egalitarianism has yet to be resolved.

Intelligence

Introduction

One of the most puzzling features of sex-role research is the scant attention given to the effects of intelligence. At the time when the present investigation was begun, no research in which children were drawn from the normal population, had centred specifically

on this issue. Findings, when they appeared, were intermittent and incidental to the first purposes of the investigators. Theory construction and the relationships between many other factors and sex-role variants were being thoroughly explored. Empirically-derived findings were comfortably outdistanced by theories. But intelligence as an antecedent of sex-role development was not discussed. This was not unusual however, for personality and developmental theories have shown only indirect concern with the role of intelligence in human development. Freud, Murray, Allport and Erikson have little to say on intelligence, though implicit in the writings of Piaget (1947) and Werner (1948), are the assumptions (a) that intelligence defines the rate of development and (b) that cognitive development is integral in all personality development. In view of the lack of specific attention devoted to intelligence in the numerous theoretical explications of personality, neglect of intelligence as a correlate of sex-role development is more understandable.

Vernon (1960) has shown that through the primary and secondary school years and through early adulthood the average child stays within the same band or region of I.Q.; a finding supported by the Fels longitudinal growth study which indicated that of 252 children tested at 6 and 18, sixty percent did not register change in excess of 15 I.Q. points (Stewart, 1967). Intelligence therefore is not entirely stable. Changeable, it is not as unstable as some non-cognitive characteristics equally interesting as possible contributors to sex-role development; aggression has been shown to change considerably over time (Kagan and Moss, 1962); personality styles, personal or impersonal, may be quite different from one age to another (Bamerich, 1964).

Whether or not a level of intelligence is an important antecedent of sex-role development for boys at any or every age is not at all clear. Social-learning theory, laying great store by chronological-age studies, has neglected intellectual development;

maturaton theory, mainly relating sex-role development to physiological maturity, has overlooked the role of intellect; Freudian theory has no concern with levels of intellectual functioning. So findings derived from research framed within these positions throw light only incidentally on the intelligence/sex-role relationship.

The Literature Reviewed

One particularly well-documented feature is that there are sex differences in intellectual style. Milton (1957), working with college students to whom the Terman-Miles M-F test was administered, found that males and low F girls obtained consistently higher scores on Witkin's Embedded Figures Test than other girls and were superior in mathematics. Creativity (McKinnon, 1962) and originality (Barron, 1957) studies show that men who are highly creative and original are less masculine in their scores on M-F scales than are other males. Similar findings result from research into differences between thinking styles in children. Problem-analysis, spatial, temporal and mechanical reasoning, science and mathematics show that boys perform better in them (Heilman, 1933), (Tyler, 1947), (Mellone, 1944). Grambs and Waetjen (1966) elaborating upon this, point out that boys solve problems through recognition of broad relationships among content areas. Girls, on the other hand, tend to keep content areas separate and elicit direct relationships from among the elements. The school curriculum, they point out, has a 'sex-loaded component' of which most teachers are unaware. Whether or not it is the aggressiveness of boys which sharpens their analytic thinking skills deserves conjecture. Girls, with stronger affiliative/expressive needs, are better equipped to handle problems in groups and scholastic issues of a people-centred nature. And, in this way, they have no need to abdicate from the feminine position as did the girls in Milton's (1957) study.

Research into the relationship between intelligence and sex-role development has yielded limited and somewhat conflicting results.

Terman (1925) and Terman and Miles (1936) produced two sets of findings for children. In the first, bright boys (I.Q. 130+) were more masculine in game preferences between 8 and 13. In the second, although bright boys were more masculine at 14 on responses on the Terman-Miles M-F Test, they were less masculine than average boys between 16 and 20.¹ In a study using the same test with a widely-selected group of subjects, Getzel (1966) found that high I.Q. and masculinity correlated positively.

Little was reported until 1962 when Leffkowitz (1962) found a positive relationship between I.Q. scores and GAP for 10-year-old boys. Non-deviant boys scored higher than deviant boys ($p < .01$) on the CEM (Shortened Form). Clark (1963), working with retarded children found that correlations on the IT Scale were higher with mental age (.69) than with I.Q. (.56) and chronological age (.47). Epstein and Liverant (1963) found an extremely low correlation (.02) between I.Q. and IT Scale scores for 135 boys aged 5-7.

The most thorough research (Mohlberg and Zigler, 1967) examined the differences between sex-role attitudes and cognitive maturity in children aged 4-10. (i) Experimental dependency and imitation as shown in pattern construction; (ii) attachment and imitation to father or mother as shown in doll play; (iii) sex-typed interests on IT Scale and Pictures Test were all tested.

Results on (i) showed that bright boys (i.e. 120+ on Stanford-Binet or Gesell Developmental Examination with 4-year-olds), more dependent at age 4, declined more rapidly than average boys (114 on Stanford-Binet or Gesell Developmental Examination with 4-year-olds) in total dependency ($p < .10$). At 4, bright boys were oriented towards the male experimenter and average boys toward the female experimenter ($p < .01$). Between 4 and 6 bright boys moved towards the female experimenter. Average boys shifted their preference to the

1. Kelly (1955) found men became more masculine as they aged. Mussen (1961) found boys who had more masculine interests during adolescence were more masculine in interests and attitudes in adulthood.

male experimenter between 4 and 6 and did not re-direct their preference to the female experimenter until between 6 and 7. Summing this up, the authors wrote: 'In the years in which the bright boys are becoming more female-oriented, the average boys are becoming more male-oriented as if they were catching up the one-to-two year advance in mental age of the bright boys'. Bright boys exhibited no preferences for male or female experimenter at 10. Comparison of scores on measures of adult imitation did not yield any significance in an analysis of variance.

The role of cognitive development is clearly drawn in these findings on 'reversals' in dependency and strengthen Kohlberg's case for the cognitive-developmental interpretation of sex-role development in childhood. One may, at this point, question the extent to which school experiences contribute to these reversals. The purported 'feminization' of schools (Sexton, 1964), the superabundance of women teachers in junior classrooms and the finding (Kagan, 1964) that 6-7-year-olds attribute female character to schoolroom objects may be determinants of far-reaching importance. Curiously, Kohlberg and Zigler give no data on preschool experience, nor do they comment on the possibility that educational experiences for young children might conceivably be 'F-loaded.'

(ii) Measures of father- v mother-preference in doll play give further support to the cognitive-developmental position. At 4, bright boys were father-oriented, average boys mother-oriented ($p < .05$). Until 6, bright boys increased slightly in father-orientation, but declined between 7 and 11. Average boys had overtaken the bright boys by 7. An analysis of variance showed sex and I.Q. to be the most significant determiners of same-sex parent orientation.

(iii) Trends shown on both the IT Scale and the Pictures Test favoured bright boys at age 4. On the IT Scale test scores between bright and average boys were significantly different at the .05 level,

though by 7, ceiling scores¹ were reached by both groups. Results on the Pictures Test were similar. Bright boys had established a masculine superiority by 4, but they were being overtaken by 6 and 7.

In discussing these trends and developmental reversals, the authors suggest that cognitive reorganization is a more plausible explanation than the age-specific socialization argument. Developmental shift in girls, not discussed here, is less marked than for boys and 'gives less support to a cognitive-reorganization interpretation of I.Q. group differences' (Kohlberg, 1966). The prospect of subtly-loaded, sex-connoted situations is not discussed. The main burden of the case supports the hypothesis that intellectual growth is an important determinant of sex-role development. Cultural-transmission views in which adult labelling and reinforcement or parent-identification is advanced as an explanation is seen by Kohlberg and Zigler as being equally inadequate.

Conclusion

In the introduction to this review section, variation with age, in some antecedents of sex-role behaviour was discussed; comment was made, too, on the tenuousness of facts concerning the relationship of intelligence and sex-role phenomena in boys. The recently reported study by Kohlberg and Zigler (1967) has provided new perspectives to the literature of sex-role development. Social-learning theory and Freudian theory deserve re-appraisal. Developmental theories of Piaget and Werner, presenting intellectual development as a transformational force may assume greater importance. To be sure, many theory questions remain to be solved; ontogenetic discontinuity, as a case in point, is one. Lynn (1962) for example, postulates that sex differences exist in the acquisition of sex-role identity. The boy's task, difficult at first, eases over time; the girl's task, easy at first on account of the 'visibility' of the mother, increases in

1. In the pilot study for the present research, ceiling or near-ceiling scores (i.e. 80+ on the IT Scale) were reached by 35% of a group of 8-year-olds (n = 20).

difficulty. For both of them, the male role is perceived as the more prestigious and desirable as time goes by. And, clearly enough, sex-appropriate behaviour is age-specific. But research has not yet unravelled the timing and the nature of the specifics. Mussen (1961) was surprised that feminine boys, poorly adjusted in adolescence became well-adjusted adults.

Difficulties in the delineation of shifts and changes in sex-role identification are manifold. Some problems are readily discerned. The bipolar assumption which has constricted research in the past, needs re-evaluation. Complexities in masculinity-femininity continue to be derived by techniques and procedures used to appraise them. Of the instruments used - ~~Terman Siles~~, MMPI,¹ Gough, Pictures Tests etc. - all each manages is to differentiate along a single linear dimension, placing masculine and feminine at opposite poles. Quite conceivably, Mussen had ignored the likelihood of cognitive factors playing a part; others may have denied cognition because it did not fit comfortably within their preferred theoretical and conceptual framework. Intelligence, as a powerful cognitive factor, has been long neglected; this brief review illustrates the incidental and fragmentary nature of research findings thus far.

1. The MF scale of the MMPI is male-biased. Murray (1963) reported that only 40 of the 60 items differentiated significantly between men and women.

CHAPTER VII

THE ANALYTICAL FRAMEWORK

Introduction

The purpose of the present chapter is to outline the framework within which the study is to be conducted. In the title of the chapter 'analytic' is used in the conventional sense and carries none of the technical connotations of Freudian, neo-Freudian or any other variant of depth-psychology.

Interest in the topics of sex-role identification and the development of sex-differences has freshened in recent times. Although three major books (Bandura and Walters, 1963), (Maccoby, 1966), (Sears, Rau and Alpert, 1966) have appeared in rapid succession which have been addressed to these fields of study, it is still surprising that so little attention has been devoted to the sifting out of the primary antecedents of sex-role.

There are three main reasons for this limitation. First is the complex nature of the process itself (see Chapter II). Second is the unconcerted nature of research into sex-role development. There has not, for example, been any direct frontal attack upon it despite the fact that masculinity and femininity are recognized as crucial dimensions in the development of a style of life. Many studies reviewed for this present research amply illustrate this point. Various research studies have been undertaken, which stand independently, which employ different instruments, which use different assumptions, differently-aged and differently-drawn populations and different hypotheses. Enquirers are confronted with a pastiche composed by many artists of diverse persuasions; all that can be construed is a fragmentary, non-cohering impression.

The piecing together of results from various unconnected studies to produce tentative developmental pictures has been roundly

deplored (Wylie, 1961). Nor is Bronfenbrenner (1963) persuaded that proliferation and diversification of measures and research strategies will create any new insights into such developmental processes. He remarks: '... to argue, as some investigators have done that the best strategy under present circumstances is to use a combination of several different measures is to violate what little theory we have.' (p. 539)

Bronfenbrenner's warning is acknowledged. In the present study, the rationale underlying the research draws on the theoretical formulation of development discussed earlier; the testing procedures are therefore sustained through three age-levels.

A third limitation derives from the theoretical and practical emphases upon parent(s) and child(ren). This reads as a curious deficiency in past research. Bandura and Walters (1963), aware of the limitations which this and the unidirectional paradigm impose, mention (p. 92) that the family constitutes the child's basic reference-point and that intrafamilial dynamics are important. Yet they abandon this perception and limit their enquiry into identification to '... the child's imitation of the same-sex and opposite-sex parent.' Kohlberg (1966) also adopts a view of limited (i.e. 1:1) relationship as a baseline from which identification develops: 'The identification concept,' he writes, 'also implies that this generalized and intrinsic tendency to imitate another's behaviour rests upon the existence of a strong emotional attitude or tie to the other, i.e. upon a relationship of love for, or control of the model.'

A question which might be asked at this point is: 'need there be an other?' And if this be the case, need the 'other' necessarily be the father or the mother?

This question helps establish a frame of reference for the present study.

This investigation initiates sex-role research in New Zealand. In the developmental stance which is taken, much is owed to Werner and Piaget. The development of sex-role is discussed in terms of

age-levels broadly corresponding to the Piagetian stages of intuitive thinking, concrete operations and propositional operations (Thomson, 1962). The main burden of the research lies in an examination of relationships between two contiguous variables - masculinity and sex-role preferences - and:-

- (i) age
- (ii) intelligence
- (iii) socioeconomic status
- (iv) structural variables within the family
- (v) affectional bonds within the family.

Thus three fundamental postulates can be advanced at this point:

- A. that significant changes in the relevant components of identification¹ occur in childhood,
- B. that 'significant others' facilitate sex-role development,
- C. that 'significant others' within the family vary over time in importance.

Previous researches (Stolz, 1954), (Lynn, 1962), (Lynn and Sawrey, 1959), (Mussen and Distler, 1959) have indicated that much work remains to be done on male sex-role development. By focussing solely on boys in this present study, advantages of a methodological nature accrue: (i) the research can be contained within more manageable limits; (ii) public antipathy is less likely to be aroused; (iii) the exclusion of girls halves reciprocal relationships from twelve to six and sibling groups from eight to four in the two-child families under consideration.

Family Composition

Subjects from three different types of family are included in the present study:

- (a) two-child families,
- (b) one-child families
- (c) families in which the father is not continuously present.

1. In this case, masculinity and sex-role preference.

The reasons underlying the choice of subjects from two-child families have already been discussed; those determining the inclusion of types (b) and (c) are simple enough. For the former, only a sprinkling of references has been found (Stott, 1939), (Cutts and Moseley, 1954), (Burke, 1956) which deal with only children; no study refers to their sex-role development. Father-absence, on the other hand, has been studied with direct regard to sex-role development, (Tiller, 1957), (Lynn and Sawrey, 1959) but nowhere has the relationship between intrafamilial affections in father-absent families and sex-role variables been considered.

Therefore the types of family from which subjects are drawn are:

- i. clearly disparate,
- ii. sufficiently compact in structure to provide manageable interactional patterns,
- iii. available within the 'catchment area' of the city of Palmerston North.

To enable easier interpretation of tabulated data, abbreviations used to delineate the various subgroups need explanation. The number (1 or 2) accompanying the sex-referent identifies the subject(s) under discussion as first- or second-born and male.

<u>Description</u>	<u>Notation</u>
Boy with an older brother	MM ₂
Boy with an older sister	FM ₂
Boy with a younger brother	M ₁ M
Boy with a younger sister	M ₁ F
Singleton	M
Boy with father not continuously present	Fa Ab or FA
Boy with like-sex sibling	LS
Boy with opposite-sex sibling	Opp S or O.S.

NOTE: In the two-child families, subjects are not more than six years distant in age from their siblings.

Age

This study will attempt to map developmental changes in masculinity and sex-role preference. In it, the same instruments will be used through the testing points or 'levels'. The three points selected for testing, ages 5-6, 7-8, 11-12 derive broadly from the 'stages' of development explained by Piaget. Sex-role denotations at Level I (age 5-6) are more intuitive than they are concrete. But as with mass, weight and volume, the five-year-old's notion of sex-roles is inconstant and preconceptual. By Level II (age 7-8) sex-role constancy parallels constancy in general conceptualization. Cognitive functioning assumes a salient position in the widening perception of similarities and differences. By Level III (age 11-12) social approval is predicated upon the capacity to 'be like' the others of the sex and to 'act like' a male. Demands are not only for physical and motor skills, but for sex-congruent thinking and socio-emotional style. In other words, by this level, behaviours manifested are expected to be sex-specific.

At about this age, as Piaget has pointed out, the capacity for formal thought begins to develop; the boy can create hypotheses and deduce consequences from them. Piaget, it should be noted, says nothing of sex-differences when dealing with stages of intellectual growth, yet it is clear that differences exist between the thinking-styles of boys and girls at age 11-12. These are too frequently discounted or ignored altogether. Observations can be made in support of this contention: (a) Cronbach (1960) does not include sex-differences in his index; (b) in a fairly recent publication (Kimball and McClelland, 1962) it is written: 'For the main business of the classroom (learning to learn) the difference between boys and girls is of no consequence'. (p. 289); (c) Kagan and Moss (1964) indicate the unwisdom of pooling data for boys and girls, for their data 'yielded different patterns of intercorrelations' (p. 275) between the two sexes.

At the Form 1 and 2 level, schools are far from being sex-neutral. Girls are directed to feminine activities, boys to masculine. The extent to which psychosexual characteristics emerge at this level in synchrony with Piaget's formal-operational stage¹ of intellectual development, not examined previously, will be considered in this study.

In addition, the chosen testing points coincide with important changes in the New Zealand schoolboy's educational journey. By 5, the majority of children attend school,² so an investigation of the manner in which the child interacts with others in his family before he is exposed to an ever widening range of relationships is essential. After 8, the influence of peers and teachers intensifies. Boys at 7-8 are reputed to see fathers as generalized models of masculinity (Lynn, 1958); sex-role constancy (Mowrer, 1950) and the related constancies of anatomy, birth process, differences in mothers and fathers, kinship, marriage rules, ethnocentric discriminations, economic and occupational roles are largely established (Conn, 1940), (Conn and Kanner, 1947). By 11 or 12, the transfer to intermediate school coincides - for many - with the emergence of heterosexual interests and more mature forms of behaviour. For the boy, male sex-role identification and its accompanying repertoire of masculine activities is an essential element in his normal development. Within the curricular and extracurricular activities of the typical intermediate school, these are readily catered for.

Thus, besides representing discrete stages of development, the three levels at which testing will be conducted coincide with three distinct 'changing-posts' in the child's primary school educational experience.

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1. Although Piaget elaborated a theory of stages of intellectual development, he has been more concerned with ontogenetic sequences than with stages delineated by age.
 2. Although attendance is not compulsory until the age of six years (1964 Education Act) 98.4 percent of five-year-olds were enrolled in schools in 1966.

One of the speculations from which this current study developed was whether correlates of sex-role development might be 'mapped' if, using the same instruments, assessment were made at different levels or ages. Developmental shifts in sex-role identification have not been examined previously. Nor has any attention been given to the notion that intellectual, familial and social status determiners may vary in importance at different developmental levels of childhood. In this study, developmental correlates, as they change through time, will be considered: (i) for intelligence; (ii) for socio-economic status; (iii) for a range of vertical and horizontal interactions within the family. These latter (i.e. (iii)) will be dealt with for (a) fathers and mothers, (b) siblings. The extent to which correlations between family affectional bonds and sex-role identification increase or decrease from Level I to Level III will form an additional section in the results. On this issue, no hypotheses are formulated but the postulate that consistent increase or decrease in the correlations between feelings to and from some affines but not in others is proposed.

To enable discussion of this postulate to be brief reference will be made to a chart on which consistent increments or decrements in correlation coefficients will be plotted.

Correlations between affectional relationships in families and the two sex-role measures of masculinity and femininity will provide the data from which the chart is drawn. Affectional feelings (+Out, +In, -Out, -In) are shown horizontally; within each of these conditions, columns for Mother (Mo), Father (Fa) and Sibling (MM₂, FM₂, M₁M, M₁F) are drawn for the two-child family. The father-absent family and the one-child family are also included.

Where consistent increase (along the -1 to +1 continuum) in coefficients occurs from Level I through Level II to Level III an arrow is shown thus: ↓. If consistency occurs, but in the opposite direction, (i.e. along the +1 to -1 continuum), the arrow points in the reverse direction, thus ↑. From the chart therefore, consistency

between affectional correlatives and masculinity and femininity can be traced graphically. The discussion which accompanies the chart develops the trends more fully. What must be made clear is that the discussion only examines these relationships: (a) subjects with mothers and fathers in the two-child family, the father-absent family and the one-child family; (b) subjects with siblings from four selected constellations in the two-child family. There is no attempt to compare affectional correlates for fathers and mothers with sibling correlates at this point. The analysis, therefore, will consist of two separate discussions - one for parents, the other for siblings.

Family Relationships

Theorists have accorded considerable importance to interactions between parent(s) and child(ren) in the formation of sex-role identity. Various, they have postulated such factors as salience of the aggressor, nurturance, dependency, envy or power as correlates of sex-role phenomena. In the past, the studies which have focussed on any of these factors have tended to examine the child's interrelationship with only one or other of his parent models. Whilst there are many studies which support the view that parent-child relationships are crucial in the development of the sex-role dimension of personality, there are few which indicate that the child's perception of the relationship is highly important. In an early book, Piaget (1932) indicated that a child perceived differences in his family at different stages of development and that only by eight can he perceive 'the logic of relations.'¹ A more recent study (Serot and Teevan, 1961) indicates that the child's perception of the relationship, as well as those of the parents, is highly important. Very succinctly it states: 'It is not the relationship of the parent and child per se that is important but how the child and the parent perceive it.'

1. For a fuller discussion, see Piaget (1959).

Thus it seems appropriate for the present study to consider two things: (i) The relationships which precede the development of logicity - of which Piaget writes - as well as those which follow it.

(ii) A view of relationships within the family as the child sees them; i.e. a view from 'the other end of the telescope.'

This is not to suggest that the relationships between child and parent will be viewed as unimportant; it merely indicates their significance will not be overplayed in this study. Here close consideration will be given to 'vertical' (i.e. intergenerational) and 'horizontal' (i.e. intersibling) connections. Two points need to be made in elaboration. One is that the child's perception of the father will be given more attention than in other studies. Although Ostrovsky (1959) and Nash (1952, 1964) have both indicated that serious consequences may arise if parental influence is uneven, the significance of the father in the structuring of personality has been less rigorously researched than has the role of the mother. The second point is that interactions among children in the family have been given relatively little heed. Older, like-sex siblings might conceivably be as significant as fathers in providing male models; younger like-sex siblings may confirm self-concepts of masculinity; opposite-sex siblings may re-affirm the Parsonian "we-males" entente for boys with their fathers. In the majority of studies, such prospects as these have not been pursued. Father might not be the only available male model within the family for his son; a brother may very early provide an adequate model for personal identification and a satisfying, even if socially inadequate, model for positional identification at later stages of development.

Lansky has suggested that the bipolar assumption of masculinity-femininity is untenable (Lansky and McKay, 1963), (Gonen and Lansky, n.d.), (Lansky, 1964). He submits that multi-dimensional tests need to be devised before further progress can be made. In the present study masculinity is determined from responses on the feminine items of a Play and Games List (Rosenberg and Sutton-

Smith, 1960); cogent reasons for the use of this type of scale are advanced (Rosenberg, Sutton-Smith and Morgan, 1961), (Lefkowitz, 1962), (Kohlberg, 1967). Responses on this scale, registered either 'feminine-liked' or 'feminine-disliked' permit the construction of a series of biaxial references for each level, type of family (2-child, 1-child, father-absent) and structural variables (first-born v second-born; like-sex v opposite-sex; MM₂, FM₂, M₁M, M₁F) within the family.

The design of the present research allows for observations to be made: (a) regarding parents (i.e. mothers and fathers) and boys' sex-role development at three ages (levels) in three types of family - the two-child family, the father-absent family and the one-child family; (b) for the structural variables of ordinal position (i.e. first-born and second-born) and sex-composition (i.e. like-sex sibling and opposite-sex sibling); (c) comparing the hitherto-neglected sibling-affection correlates of sex-role development for four two-child family conditions. By this means, horizontal and vertical data can be treated discretely.

Hypotheses relating to each of the three divisions enumerated in (a) - (c) above are classified below:

A. Vertical Relationships.

I. Parent-child relationships and sex-role development in two-child families.

For mother-son correlates it is predicted:

- (i) that relationships with mothers will be more positively correlated with femininity in younger than in older sons.
- (ii) that correlations between mother-bonds and masculinity will diminish over time.
- (iii) that correlations between maternal affectional ties and male sex-role preference will be lower in older (Level II) boys.

For father-son correlates it is predicted:

- (iv) that relationships with fathers will be more effective correlates of masculinity in younger than in older boys.

(v) that the association between father-son affections and femininity will decrease over time.

(vi) that the relationship between father-son feelings and sex-role preference will increase between years five and eight.

II. Parent-child relationships and sex-role development in father-absent families.

Predictions for mother-son correlates are:

(i) that correlations between affectional bonds with mothers and femininity will increase positively with age.

(ii) that inverse relationships between affectional bonds with mothers and masculinity, important at an early age, will decrease in magnitude and number as boys grow older.

(iii) that correlations between affectional feelings with mother and sex-role preference will decrease over time.

A prediction for father-son relationships is:

(iv) that correlations between affectional feelings with father and sex-role preference will increase over time.

III. Parent-child relationships and sex-role development in only-child families.

For mother-son correlates it is predicted:

(i) that relations between affectional feelings with mothers and femininity will be greater for younger than for older boys.

(ii) that relations between affectional feelings with mothers and masculinity will decrease over time.

(iii) that the association between affectional bonds with mothers and male sex-role preference will decrease over time.

For father-son correlates it is predicted:

(iv) that the association between affectional bonds with father and male sex-role preference will decrease over time.

- (v) that relations between affectional feelings with fathers and masculinity will increase over time.
- (vi) that the association between affectional bonds with fathers and femininity will decrease over time.

B. Structural Variables.

Two general hypotheses and sub-hypotheses relating to the structural variables birth-order and sex-composition are enumerated:

IV. First-born vs second-born:

That relationships between birth-order and sex-role development will vary in first-born and second-born boys.

It is hypothesised:

- (i) that first-born boys will be more feminine than second-born boys.
- (ii) that second-born boys will be more masculine than first-born boys.
- (iii) that second-born boys will record higher male sex-role preferences than first-born boys.
- (iv) that femininity in both first-borns and second-borns will decrease with age.
- (v) that masculinity in first-borns and second-borns will increase with age.
- (vi) that the tendency for more first-borns than second-borns to be high-feminine will diminish with age.
- (vii) that the tendency for more second-borns than first-borns to be high-masculine will diminish over time.

V. Sex Composition:

That relationships between sibling-sex structure and sex-role development will vary in like-sex and opposite-sex complexes.

In the sub-hypotheses formulated it is predicted:

- (i) that boys with opposite-sex siblings will be more feminine than boys with like-sex siblings.
- (ii) that boys with like-sex siblings will be more masculine than boys with opposite-sex siblings.

- (iii) that boys with like-sex siblings will record higher male sex-role preferences than boys with opposite-sex siblings.
- (iv) that femininity in like-sex and opposite-sex siblings will decrease with age.
- (v) that masculinity in like-sex and opposite-sex siblings will increase with age.
- (vi) that the tendency for more boys with opposite-sex siblings to be high-feminine than boys with same-sex siblings will diminish with age.
- (vii) that the tendency for more boys with like-sex siblings to be high-masculine will increase with age.

C. Horizontal Relationships.

Although it is generally recognized that relationships become more complex as the size of a group increases, this simple truth has frequently been ignored in family relationships research. The magnitude of the network of interactions has rarely been considered; relationships increase, not in simple arithmetical progression, but in triangular order.¹ Thus, in the two-child family, the number of 1:1 relationships which occur are six. If the sibling is excluded and relationships between parents and one child are considered, then only 3 relationships occur. Denial of the existence of siblings in the study of family relationships may give a seriously distorted view of interactional patterns.

1. The formula $R_x = \frac{n^2 - n}{2}$ (Bossard, 1945) may be used to determine the number of 1:1 relationships (R_x). It should be noted, however, that the number of potential relationships and coalitions (PR_x) can be deduced from the formula:

$$PR_x = \frac{3n - 2n + 1}{2} + 1$$

This, for the two-child family, gives a total of 25 relationships.

In this investigation, a restriction on family size is imposed. Relationships, reduced to manageable size, allow for comparisons to be made between boys with older siblings and younger siblings of either sex.¹

Hypotheses to test sibling status as a correlative of sex-role development are formulated.

It is predicted:

VI that the association between affectional bonds and masculinity will be greater:

- (a) in boys with younger brothers (M_1M) than in boys with younger sisters (M_1F),
- (b) in boys with older brothers (MM_2) than in boys with older sisters (FM_2),
- (c) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),
- (d) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2).

VII that the association between affectional bonds and femininity will be greater:

- (a) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2),
- (b) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),
- (c) in boys with older sisters (FM_2) than in boys with older brothers (MM_2),
- (d) in boys with younger sisters (M_1F) than in boys with younger brothers (M_1M).

VIII that relationships between affectional bonds with siblings and sex-role preference will be positive and larger:

- (a) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2),

1. Subjects distanced from sibling by more than six years were excluded from the sample.

- (b) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),
- (c) in boys with younger brothers (M_1M) than in boys with younger sisters (M_1F),
- (d) in boys with older brothers (MM_2) than in boys with older sisters (FM_2).

Socioeconomic Status

The review of the literature in a preceding section reveals relatively few studies (Rabban, 1950), (Hall and Keith, 1964) in which social class/sex-role relationships have been examined. In developmental studies particularly, variations in social class rarely emerge. The main reason is that they have rarely been looked for. Yet, as Bronfenbrenner (1963) has pointed out, '... whenever the investigator has taken the trouble to collect and examine the necessary data, social-structural differences have almost invariably appeared.'

In this present study the point is taken and social-structural variables are included. One question to be investigated is the relation between socioeconomic status and sex-role scores. To this end, 'social class' and 'socioeconomic status' will be used interchangeably, for the basis upon which the relationships are studied is father's occupation. This has been found (Hall and Jones, 1950), (Glass, 1954), (Lawson and Book, 1960) to be one of the best single indices of socioeconomic status. In New Zealand, scales devised in the mid-fifties (Congalton and Havighurst, 1953), (Congalton, 1954), (Havighurst, 1954) found occupational level to be the best single predictor of social status for these social conditions too. The seven-fold classification of Congalton and Havighurst whilst possessing limitations, has proved useful for social science research in recent years (Fraser, 1963), (Freyberg, 1964), (King, 1966). An additional scale, a T-scaled occupational rating scale will be used in addition in this study.

The general hypothesis is:

IX. That changes will occur in the relationship between socioeconomic status at different age levels may be tested by the predictions:

- (i) that boys of lower socioeconomic class will show clearer sex-role preferences than boys of higher socioeconomic class.
- (ii) that inverse relationships between scores on a sex-role preference measure and socioeconomic class will be more significant at Level II than at Level I.
- (iii) that feminine-liked activities (F) will be positively related to socioeconomic class.
- (iv) that the relationship between feminine-liked games choices will be more apparent in younger than in older boys.
- (v) that feminine-disliked (M) activities will be inversely related to socioeconomic class.
- (vi) that the relation between masculine games choices (feminine-dislike) and socioeconomic status will be more apparent in younger than in older boys.

Intelligence

At the time the present study began, inconsistencies in the research findings relating to the effects of intelligence upon sex-role development in children were apparent. Research findings were reviewed in a previous chapter. Until late 1967¹ no study available in New Zealand, examining intelligence as a sex-role correlate, was particularly convincing within a developmental context. The work of Kohlberg (1966) and Kohlberg and Zigler (1967) has presented a refreshingly new dimension upon cognitive maturity and sex-role.

In this present investigation, with larger numbers, a wider

1. Maccoby, E.E. (ed.) The Development of Sex Differences (Tavistock) in which Kohlberg's 1966 article appears reached New Zealand in September 1967.

age-range and different instruments, there is no duplication of work reported upon from elsewhere. This study will examine sex-role development from a different standpoint. A group test provides intelligence quotients; the sex-role masculinity and femininity scales differ from Kohlberg's doll play measures; only the sex-role preference measure (ITSC) had been used in the Kohlberg study.

For this investigation a general hypothesis is formulated in which it is predicted

that intelligence will be a correlate of sex-role development.

Five sub-hypotheses are listed which predict:

- (i) that intelligence, as a correlative of sex-role preference, will be more significant in older than in younger boys.
- (ii) that intelligence and femininity will be negatively correlated at each age and that these correlations will increase over time.
- (iii) that masculinity will be positively related to intelligence at each age but that the intensity of relationship will decrease with age.
- (iv) that boys high on femininity will be of low intelligence but that the association will decrease with age.
- (v) that boys high on masculinity will be of high intelligence but that the association will diminish with age.

The Data

Hazards

In the U.S. research with young children is mostly conducted in laboratory schools attached to universities or colleges or in private schools and public day-centres (Bijou and Baer, 1960). Problems of biased sampling in these circumstances frequently occur because middle-class, professional and business families are over-represented. On the other hand, the research worker has some advantage in this situation: parents are generally amenable to research, they

react favourably to innovation and develop easy relationships with teachers and researchers.

New Zealand stands in sharp contrast. Here there are no laboratory schools and a few, widely-dispersed private schools which are rarely accessible to the research worker. Public schools which yield viable test populations are the best alternative for child development research of the present type. Whilst sampling-bias presents less of a problem than in America, other difficulties arise. Parent cooperation must be enlisted, official approval must be gained to facilitate entry into the schools and public and professional sympathy must not be alienated.

The present investigation, with its basic components of family relationships and sex-role was seen to have a low 'flash-point' for the New Zealand situation. Further, it was imperative that in so confined a test area, neither uncertainty nor misconception about the nature of the research was to be harboured in the public mind. The precautions taken to ensure that public and departmental support were enlisted, were given very careful consideration. These precautions are briefly outlined below.

Preliminary Work.

A preliminary testing programme was undertaken (a) to appraise the test instruments when used with young children, (b) to determine the most effective working procedures, (c) to gauge the extent of cooperation (or resistance) from parents, school administrators and teachers.

Approval for conducting the study in schools was gained from the District Senior Inspector of Primary Schools, Wanganui Education Board. Two Head Teachers from large metropolitan schools agreed to assist in the selection of boys for the pre-research programme. Letters (see Appendix) were sent to the parents of 24 5-year-old and 20 8-year-old boys outlining the purpose of the study and inviting those interested and cooperative to obtain further information, if

they so desired, in discussion with the investigator. Twenty-three parents (52 percent) availed themselves of this invitation; one refusal (for religious reasons) was recorded. Two parents (both male) who expressed reservations about the breach of privacy committed by the Family Relations Test eventually agreed to their sons' participation.

The preliminary testing indicated that: (i) the proposed tests could be effectively used with young children, (ii) the procedures¹ were viable, (iii) parent and teacher interest and support could be gained.

A preliminary analysis of the two tests (Family Relations Test and the IT Scale) about which the greatest uncertainty was felt was carried out. With the former, mean allocations of affectional relationships registered by the 5-year-olds and 8-year-olds for Self, Father, Mother were plotted to enable inspection of differences (i) between age-levels and (ii) between manual and non-manual socio-economic groups. As no control of family size or ordinal position was demanded for this pre-investigation run,, analysis of a more detailed nature was unnecessary. Table VII. 1. summarizes the data examined.

Table VII. 1.

	Father's Occupation	Self		Father		Mother	
		5 y.o.	8 y.o.	5 y.o.	8 y.o.	5 y.o.	8 y.o.
Positive Outgoing Feelings	Manual	1.09	1.95	2.23	3.07	3.68	3.21
	Non-Manual	1.5	2.65	4.0	1.98	3.07	2.71
Positive Incoming Feelings	Manual	.09	.71	1.86	1.34	3.31	3.50
	Non-Manual	.86	1.1	1.85	1.75	4.64	3.00
Negative Outgoing Feelings	Manual	.91	0	5.86	5.70	5.14	5.88
	Non-Manual	.93	.22	4.62	4.59	4.39	5.59
Negative Incoming Feelings	Manual	-	0	-	4.14	-	2.71
	Non-Manual	-	1.4	-	2.15	-	0

1. To be explained in The Test Instruments section.

The FRT appeared sufficiently sensitive to family constellation to warrant its inclusion in the testing programme.

In the two schools, all boys aged 5 and 7-8 were tested with the IT Scale. Fathers' occupations were taken from school record cards and placed into manual/non-manual divisions. A significant difference resulted at age 5, not at 7-8. The father-absent group, although much smaller, displayed a markedly lower mean score at age 7-8.

Table VII. 2.

		Mean Scores on IT Scale in Two Schools							
Age		n	Mean Score	$m_1 - m_2$	t	Level of Confidence		n	Mean Score
5	Manual	34	65.0	23.6	4.13	1 percent	FaAb	9	52.66
	Non-Manual	37	41.4						
7-8	Manual	34	78.11	2.46	.85	n.s.	FaAb	16	61.25
	Non-Manual	35	75.65						

On the basis of these results, it was decided to retain the IT Scale, but because of the "ceiling effect" at an early age, to supplement it with the 1964 extended and revalidated version of the Play and Games List (Rosenberg and Sutton-Smith, 1964).

Selection of Research Sample

(a) Levels I and II. Approval for the extension of the study into all state primary schools, one excepted, was given by the District Senior Inspector of Primary Schools, Wanganui Education Board. Meetings were held with each school principal to explain the nature and purpose of the research. Rooms which contained boys aged 5 and 7-8 were visited and those living in families of apposite composition were listed. Each potential subject was informally interviewed to elicit other information: position in family, sex, name and age of sibling, home address and place and type of father's employment. Date of birth

and father's occupation was taken from pupils' record cards; father's occupation was double-checked from electoral rolls. Information sheets containing the relevant details were checked by supervisors of junior classes. Any child whose sibling was more than six years removed in age-spacing,¹ or in whose home a person not belonging to the nuclear family was living, was eliminated as a possible subject.

A letter was sent to each child's parent(s) (see Appendix) notifying them of the investigator's purpose and seeking permission to begin. Forty-three percent of parents called or rang seeking further information or to give approval directly; there were no refusals. Two weeks later each boy was visited at school to establish rapport and to verify as informally as possible, necessary details.

(b) Level III. Schools were screened by the distribution of an information sheet, designed to elicit the same information as collected at Levels I and II. In one school information was gathered by class teachers who had been briefed by the investigator concerning the research and the need for accuracy in gathering personal and familial information. In the other school information was gathered by the investigator personally from every class. Parent interest and cooperation was enjoined as for Levels I and II. Twenty-one percent sought further information; again there were no refusals.

Collection of Data.

Data were first gathered from Levels I and II subjects. Each child was visited on seven occasions; the approximated modal time each spent on the research programme was 110 minutes. Schools, and the subjects within them, were visited in constant order. Where a child had been absent at the time of the investigator's visit, class teachers telephoned to advise of his return to school. The Family Relations Test and the IT Test were administered individually and

1. This meets the least rigorous criterion imposed by Koch. Closer age-spacing would have reduced the MM₂, FM₂, M₁M, MM₂ groups to very small numbers.

in one session, The Play and Games List individually in two sessions, the Large-Thorndike Intelligence Test in groups no larger than five. In each school the same room was made available for each visit.

At Level III, subjects who were visited on six occasions spent approximately 130 minutes on the programme. This longer time being due to (a) subjects themselves filling out basic information sheets, (b) the longer intelligence test, (c) a final brief session in which basic information was checked.

Data Analysis

Four methods of data analysis will be used in the present study: (i) The t-test (Garrett, 1953); (ii) the product-moment correlation; (iii) the critical-ratio for differences between percentages; (iv) the Sign test (Ferguson, 1965), (Siegel, 1956). Explanation is only necessary for (ii), (iii) and (iv).

Product-moment correlations. In recent times product-moment correlations have been extensively used in the most comprehensive studies in child development (Sears, Maccoby, Levin, 1957), (Kagan and Moss, 1962), (Sears, Rau and Alpert, 1966). High coefficients - such, for example, as are found in test-retest results on an intelligence test - are rare in developmental research. In developmental research, the variables being examined are exceedingly complex; correlations may be so small that their psychological importance is either questioned or overlooked (Kerlinger, 1964). Bronfenbrenner (1963) too, has pointed out that one of the problems facing the developmental researcher is that 'correlations are often disappointingly low.' He concludes that in some cases wherein the theory has led to an expectation of high correlations: '... then it is the theory that is at fault - and out of date, in the bargain.'

Several factors need to be held in mind in interpreting correlation coefficients in developmental research: (1) the size

and variability of the groups, (2) the reliability of the tests used, (3) the statistical significance of the coefficient, (4) the purpose behind the correlation and (5) the complexity of the variables.

For the present study, analysis of relations between affectional variables and sex-role scores will incur the use of correlation coefficients, all of which will be calculated by IBM 1620 computer.

Critical-ratio for differences between percentages. Testing on the Play and Games List yields masculine and feminine scales, discussed elsewhere (Chapter VIII) in this study. The combining of the M and F scales resulted in the FM Diametric (Chapter VIII). For between-groups comparisons this method proved effective. Tables and figures showing the significance of differences between percentages in high masculine and high feminine zones for each level will be shown.

Sign test. In testing the hypotheses concerning (a) parent-child and (b) sibling relationships as sex-role correlates the sign test (Seigel, 1956) will be used to establish the extent to which the direction of differences from level to level for the four kinds of affectional feelings is or is not statistically significant. The sign test, a non-parametric test applicable to ordinal and nominal measurement, employs plus and minus signs for the comparison of two sets of data. As the hypotheses for the study indicate the direction of expected differences, one-tailed tests will be used. Reference to Seigel's table of probabilities where $n \leq 25$ provides the levels of confidence for this test.

CHAPTER VIII

DESCRIPTION OF MEASURES USED

The purpose of this chapter is to describe the measures used in this investigation. The procedures which have been followed were not, in every case, identical with those employed by investigators in earlier work. Modifications were necessary, for example, to enable oral and individual administration with some of the measures at Levels I and II. The strictures of de Lucia¹ (1963) have been borne in mind and changes kept to a minimum. Only where necessitated by the demands of the testing programme were changes effected. Any alterations which have been made are explained in the discussion which follows.

The IT Scale for Children

The IT Scale (ITSC) is a structured projective test of children's sex-role preferences. There are line-drawings of 36 sex-typed objects and activities and a stick-figure, 'It', of indeterminate sex; all are produced on gloss-finish cards. Scores from 0 (feminine) to 34 (masculine) are derived from responses to three subtests. The first subtest consists of 16 cards, eight showing boys' toys, eight showing girls' toys; the second subtest consists of eight pairs of pictures, one showing a male object or activity, the other a female object or activity; in the third subtest, drawings of a boy, a boy dressed as a girl, a girl dressed as a boy and a girl are shown.

The child's task is to select the items which 'It' would prefer. To do this, as Brown (1956) states, he must project himself into the 'It'-figure and attribute to 'It' his own sex-role preference. Scores are assigned to him as follows:

-
1. De Lucia (1963) writes: "If this trend toward results which, if not incommensurable continues, additional research on sex-role identification and preferences will not necessarily serve to clear the confusion."

	<u>Possible</u>
<u>1st Subtest (Toy pictures):</u> One point for each male toy picture chosen	8
<u>2nd Subtest (Paired pictures):</u> Eight points for each male preference	64
<u>3rd Subtest (Child-figures):</u> For girl 0; for boy- girl 4; for girlish boy 8; for boy 12	<u>12</u>
	84

The advantages of this test are that: (a) it is easily administered; (b) it is enjoyed by young children; (c) it is quickly-scored; (d) it has been used with children older than those Level II children in the present study.

A test-retest (interval one month) reliability coefficient of .71 for boys and .84 for girls shows the test is satisfactory for research purposes. Item validity, as reported in the test manual, shows that items differentiate between boys and girls in each of the three sections.

Although some doubts have recently been cast upon the sexlessness of the It-figure (Lansky and McKay, 1963), (Sher, n.d.), (Eher and Lansky, 1966) - i.e. that 'It' looks masculine to both boys and girls - this does not suggest the test should be discarded. Whilst the scale may not be useful for between-sex contrasts, its use for within-sex contrasts is defensible.¹ This view is supported by McCandless (1965) who writes: 'At present the IT Scale can be recommended as a potentially profitable research tool, particularly for boys, and with further careful research, it may develop into something useful for clinical practice.'

Administrative procedures may be summarized as follows:

Form of Test: Structured-projective test, orally and individually administered. Twenty choices to be made orally or by gesture.

Variations from Test Manual: Nil.

-
1. Of 138 boys asked to ascribe a name to 'It' in this study, 61 percent gave a male name.

Scoring: Specially-designed score sheet to record choices and scores item by item.

Testing Time: (approximated) 5 minutes.

The Play and Games List

In 1936, Terman and Miles indicated that children's play and games could be useful in discriminating between the sexes. The potential value of play preferences and play behaviours for the assessment of sex-appropriateness or sex-inappropriateness was not, until less than a decade ago, adequately explored. Little was done towards developing an instrument which differentiated children on the basis of their play despite the early prompting from Terman. The Franck Test¹ (Franck and Rosen, 1949), a test of geometrical figure completions or figure preferences, was designed for adults; the Gough Test (Gough, 1952), an attitude and interest test was designed for adolescents and adults. The IT Scale for Children (Brown, 1956) and a Play and Games Test (Rosenberg and Sutton-Smith, 1959) were published in the fifties. Each provided new perspectives on psychosexual development in children, and were followed by a number of other tests (Rabban, 1950), (de Lucia, 1963), (Sears, Rau and Alpert, 1965) which used either toy preferences or picture choices as their leit-motif.

The Play and Games Test used in this study is a shortened revised form of Rosenberg and Sutton-Smith's 1959 test, a 181-item inventory. In the original (1959) form there were 67 items which, in a sample of 183 children, differentiated between boys and girls at the .10 level or better. In a later study (Rosenberg and Sutton-Smith, 1964) in which 928 boys and 973 girls from Grades 3-6 participated, 25 items differentiating in favour of girls at the .01 level and 25 items differentiating in favour of boys, also at

1. The Franck Test considers conscious and unconscious components of M and F. The complexity of masculinity and femininity are pointed out by Lansky who argues that some activities are bipolar, others are not. Lansky (pers. comm., July 12, 1967) favours the Franck Test and its multivariate approach.

the .01 level are reported. The inventory provides two scales - a masculinity scale and a femininity scale.

It is the 1964 version which has been adopted for the present study on the grounds that: (a) it is applicable to all levels; (b) it is easily administered and non-threatening; (c) it is well suited to the child's own world of action and (d) none of the games and activities are culture-specific to the American setting.

Validation of the scales was obtained from 1052 boys and 966 girls from Grades 3-6 in four American states. Mean differences between boys' scores and girls' scores were significant beyond the .001 level for each of the four samples on both the masculinity (M) and femininity (F) scale.

The Opposite-sex Scale

In most tests of sex-role identification estimates of masculinity or femininity are customarily made from like-sex scales. Scores above the mean in such tests as the MMPI and the Strong Vocational Interest Test, for example, indicate the subject's 'identification' with his own sex, whilst lower-than-average scores indicate opposite-sex 'identification'. One feature which is unconsidered by like-sex scales of masculine-feminine assessment is the extent to which persons are attuned to recognise sex-appropriate activities. Children, from a very early age, are cue-sensitive as Rabban's (1950) work clearly shows. Awareness of opposite-sex responses however, is not so necessary for social acceptability.¹

One study (Rosenberg, Sutton-Smith and Morgan, 1961) shows that opposite-sex scales are more effective than like-sex scales in the evaluation of psychosexual deviancy. On like-sex scales, there were no significant differences in emotional stability between high

1. Men, for example, appraise a woman entering the room in a different way from women; a woman knows how to sit 'like a woman' because this is both 'caught' and taught. Evident, but less perceptible, are differences in stance, gesture and communication in children in junior school classes; many such overt behaviours are sex-specific from an early age.

and low scorers (in a sample of 337 Grades 3-6 children) on like-sex scales. On the other hand those scoring highly on opposite-sex scales were more neurotic, anxious and impulsive than low scorers. This led the authors to conclude that '... it would be most economical to use the opposite-sex scale in diagnosing sex-role identification.' (p. 224) On the basis of this recommendation, the masculine and feminine scales used in this present investigation have been constructed from the 'feminine-liked' and 'feminine-disliked' items of the Play and Games Test. The 25 feminine items on this scale discriminated between 4.7 Standard 2 and 3 at the .01 level or better.

It was necessary to make alterations to some items by 'translating' them into New Zealand terminology: 'shops' for 'stores'; 'jackstones, fivestones or knucklebones' for 'jacks'; 'doing cart-wheels' for 'cartwheels'. These changes were found necessary during preliminary practice testing sessions with boys and girls (n = 47) participating in the study.¹

Items were randomized using Fisher's table of random numbers. The test was administered individually and orally in two sessions at Levels I and II and to groups of Ss, orally and also in two sessions, at Level III. At the first session, Ss were asked the games or activities they played; at the second session, which followed after a 7-day interval, the 'like' or 'dislike' question was posed for each game signified as 'played' in the first session. All responses for Levels I and II were recorded by the investigator; paper-and pencil responses were made by Ss at Level III. Masculinity and femininity scores were later derived for each subject.

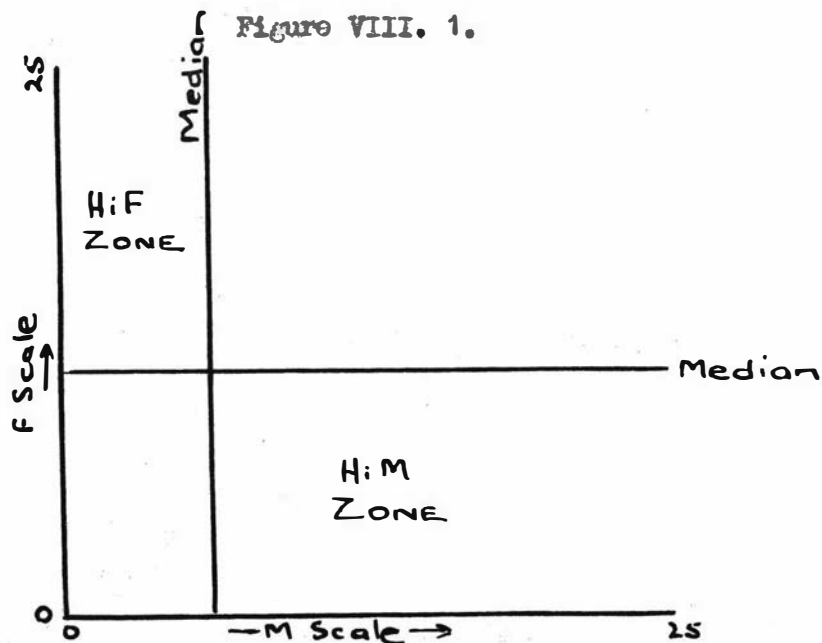
The Pk Diametric

It was evident that sex-inappropriate choices on the M-scale

1. Children from two schools were tested; their ages corresponded to the age-levels for the investigation. These children were asked to describe the game ('tell me about it') before registering their like/dialike choice.

could mean a large number of F-choices, a small number of M-choices or both. To avoid any overstress of M-responses and understress of F-responses, or the converse, a combined scale was developed.

Combining the scales provided a useful visual summary particularly for two-group (e.g. High/Low) comparisons. Masculine and feminine scores 0-25 for each scale could be plotted on X (abscissa) and Y (ordinate) axes respectively. For whatever groups were being considered, the M and F medians² were plotted. By extending the medians, two 'zones' are produced: one described as the 'High Masculine Zone' (Hi M) the other as the 'High Feminine Zone' (Hi F). That is, subjects scoring above the median on the M scale and below the median on the F scale fall into the HiM zone; conversely subjects above the median on the F-scale and below it on the M-scale fall in the HiF zone. The concept of the FM diametric is illustrated below (Figure VIII. 1.):



1. Sutton-Smith (1965) comments that response sets operate: '...those who tended to make many responses to the masculine scale also tended to make many responses to the feminine scale.' (p. 65)
2. The median value is more representative; where extreme values occur, the mean is affected disproportionately. The median is more useful in this present study.

Frequencies in HIF and HIM scores were converted to percentages to give some consistency in comparisons; where appropriate, t-tests were calculated for differences between percentages.

Administrative procedures for the Play and Games Test may be summarized as follows:

Form of Test: Mimeographed sheet of 50 items recorded
(a) by examiner at Levels I and II
(b) by Sg at Level III.

No time limit.

Administered in two sessions 7 days apart.

Variations from Original Test: Description of activity modified to a New Zealand wording where necessary.

Oral administration, examiner recording responses at Levels I and II. Oral administration, paper-and-pencil responses at Level III.

Scoring: Masculinity and femininity scores combined scale (FM diametric) to give High Masculine/High Feminine placement.

Testing Time (approximated): Levels I and II: 25 minutes.
Level III: 20 minutes.

The Family Relations Test

Introductory

An adaptation of the Bene-Anthony Family Relations Test (Bene and Anthony, 1957a, 1957b) was used to elicit the child's view of his relationships with other members of his family. Initially used as a clinical instrument with separate sets of items for 'young' and 'older' children, the test demanded the allocation of stimulus cards to silhouette figures representing family members. From an array of twenty line-drawn figures (4 men, 4 women, 5 boys, 5 girls, a toddler and a baby) attached to slotted boxes, the child selected figures representing himself and his family. A neutral figure ('Mr. Nobody') was added for any stimulus statements which applied to no one. The stimulus cards were read in random order, excepting that items positive in character (e.g. 'This person is lots of fun', 'This person

is kind-hearted') were always given first and last.

In its original form, the test contained many items inappropriate for present purposes. Intensely-hostile (e.g. 'Sometimes I would like to kill this person in the family'; 'This person in the family punishes me too often.') are thinly-disguised; and sexually-loaded questions (e.g. 'I like this person in the family to tickle me'; 'This person in the family likes to be in bed with me') are good examples of questions which needed exclusion. It was imperative that parent and teacher support was not alienated, so items of the type which might have created difficulty were ruled out in the preparation of the test.

The form in which the test was finally presented consisted of four sets each of ten items:

Positive feelings coming from the child,
 Positive feelings going to the child,
 Negative feelings coming from the child,
 Negative feelings going to the child.

The items are enumerated in Appendix III of this report.

The form of the test which was administered retained several important features from its pregenitor: (a) the underlying rationale - the exploration of the child's psychic reality; (b) the limitation of the responses to a set of standardized items; (c) the materials and test-procedures. In addition, the test had other advantages: (a) it was essentially a game-situation; (b) all family members were incorporated; (c) warm and hostile responses could be expressed before a non-involved third-party; and (d) while it probed relationships in which the child had considerable emotional investment, it concealed from him the overall allocation of his responses.

Validation

The adapted Family Relations Test, like its pregenitor (Bene and Anthony, 1957) claims to deal with the child's 'psychic reality' (sic); it is concerned with the child's view of the world; it is the child himself who, in this projective play experience, offers a

personal - albeit momentary - interpretation of his interaction with all others within his family.

Validation procedures for such a projective-type instrument as this cannot be pursued using any of the customary techniques of content validity, predictive validity or concurrent validity. It has been pointed out that where research in psychology "measures" a characteristic or quality not operationally defined, some other form of validation must be employed (Child, 1954). The designers of the original form of the test were aware of the problems which validation presented but were prepared to (i) accept the child's test feelings at face value and (ii) acknowledge that more and more evidence about the network of associations which they were examining would accumulate as research proceeded. Furthermore, if there were 'a theoretical linkage between them' (i.e. the test constructs)¹ then evidence for one adds to the confidence in the validity of the others.

The test-authors were able (i) to compare test results with limited numbers of case-histories, (ii) to subjectively evaluate the quality of agreement - poor, partial or good- between mother's questionnaire responses and children's test responses. In the former case the numbers were small; in the latter good agreement was found in fewer than half of the 44 cases.

In this adaptation thus far there are neither case-histories nor parent questionnaires available. Teachers who know each child in the class and school environment have very limited or intuitively-derived insights into family interaction. And parent judgements of the child's view of his family are impressionistic, interpretative, and adult-centred. Thus the techniques of validation using adult evaluation were inappropriate.

The assumptions which underpin this test are: (1) that the child's perception of his world is unique, (2) that his interactions with each member of the nuclear family can be sampled.

There is no unit against which correlations can be set and quantified; there is no immediate prospect that what is presented

1. Brackets mine.

by the child will be confirmed by his later behaviour, for it has been pointed out by Slater (1965) that changes across time must be expected in human interactions.

Although single-measure indices of validity are suitable elsewhere, the notion of construct validity for tests of this kind - in which no adequate criteria are available - has become acceptable (Bronfenbrenner and Ricciutti, 1963), (Miller, 1963). Construct validity is the degree to which a test is based upon a particular theory or theoretical construct. In this instance, the assumption postulates inequalities in relationships as seen by the child himself; the construct is that the ability of children to register these inequalities will be demonstrated in their test performance.

A criterion on which S_g were selected was ordinal position (i.e. first-born or second-born) in the two-child family. Within this condition, four subtypes were categorized - MM₂, FM₂, M₁M, M₁F.¹ Validation depended upon the extent to which differences between family constellations emerged. In a series of preliminary analyses, differences on mean allocations of messages for two-child families resulted. This is shown below:

Table VIII. 1.

Mean Allocations of 40 Messages for Boys in Two-Child Families

Age	Family	N	S	Fa	M ₀	Sib
5-6	Boys with brothers (n=15)	4.6	3.0	8.93	8.33	15.2
	Boys with sisters (n=18)	5.7	1.94	9.55	9.55	13.38
7-8	Boys with brothers (n=17)	6.05	1.41	8.70	9.06	14.11
	Boys with sisters (n=16)	5.56	2.00	10.00	8.25	12.82

Mean allocations were also derived for singletons and father-

1. M or F indicate sex of subject or his sibling. The number following the subject's notation (M) refers to his ordinal position. Thus MM₂ = second-born boy with an older brother. M₁F = first-born boy with a younger sister.

absent boys as a preliminary exploration.

Table VIII. 2 .

Mean Allocations of 40 Messages for Singletons
and Father-absent Boys.

Age	Family	N	S	Fa	Mo	Sib
5-6	Singleton	13.25	3.0	9.5	13.50	-
	Father-absent* (1)	0.5	0.5	5.5	9.0	20.0
	Father absent (11)	0.75	2.75	0.66	7.25	9.25
7-8	Singleton	13.83	1.16	12.5	12.83	-
	Father-absent* (1)	4.98	2.0	4.0	7.22	11.66
	Father-absent (11)	1.22	2.44	3.87	8.77	10.0

* 2 cases at each age, separately shown.

Procedure: Data for two-child families were treated by two methods: (i) Chi-square analyses for the four ordinal positions M_1M , M_1F , MM_2 and FM_2 and (ii) median tests for two-group comparisons, i.e. between like-sex (LS) and opposite-sex (OS) sibling complexes and between first-borns (1) and second borns (2).

(i) In parametric χ^2 tests, expected frequencies in each cell must not be too small. In the present research the attrition of the two-child family grouping by dispersion across four ordinal positions would cause the above requirement to be violated. To avoid this violation, Levels I and II were collapsed. This ensured that fewer than one-fifth of the cells had expected frequencies 5 and that no cell had an expected frequency of zero. This, Cochran (1954) indicated, strengthens χ^2 especially in such research as this where it is not possible to increase numbers in any of the four groups without some disruption of school programmes.

(ii) The median test, essentially a χ^2 test for k samples, may be used to determine whether k groups have been drawn from the same population or from populations with equal medians. It is

useful when the variable under study has been measured in at least an ordinal scale (Siegal, 1956).

In the present validation it is used for two group comparisons i.e. like-sex/opposite-sex and first-born/second-born. For this, numbers are divided at the median and the two groups above and below the median compared. Median scores are included in the upper group. The dichotomized scores are cast into a $k \times 2$ table and χ^2 evaluated as indicated above.

Results: Although in experimental work probabilities of .01 or better are usually demanded, some comfort is taken from two indications that less stringent levels are acceptable. Garrett (1954) points out that '... the .05 level is often satisfactory, especially in preliminary work.' (p. 222) and Yarrow (1967) acknowledges that research in child development 'clings tenderly' to the .05 and even .10 levels of significance.

One theoretical postulate in the present research is that ordinal position is an important variable in family relationships. An attempt has been made to validate this postulation within two-child families where sibling distance is no greater than six years. For the 120 χ^2 or median tests which were calculated, 28 percent approached an acceptable level of significance, 22 percent reached the .10 level or better, 10 percent reached the .05 level or better.

Tables VIII, 3-5 which follow show where probabilities reach or approach significance in this validation.

Table VIII, 3.

Four-group Comparisons in Two-child Families

Condition	Level	Chi-square	Degrees of Freedom	Level of Significance
Total Mother	III	8.37	3	.05
Total Self	III	8.02	3	.05
Total Father	I-II	6.80	3	.10
Total Father	III	6.32	3	.10
Total Sibling*	III	5.02	3	.20

* Incomplete data: not full sample.

Table VIII. 4.
Analyses of Subcategory Data for Levels I-II.

Condition	Level	Chi-square	Degrees of Freedom	Level of Significance
+ In Sibling	I-II	9.41	3	.05
- Out Sibling	I-II	8.58	3	.05
- In Mother	I-II	6.74	3	.10
+ In Mother	I-II	5.98	3	.20
+ Out Mother	I-II	5.48	3	.20
+ Out Sibling	I-II	5.63	3	.20

Table VIII. 5.
Analyses of Two-group Comparisons: Like-sex (LS) v
Opposite-sex (OS); 1 (first-born) v 2 (second-born)

Condition	Level	Chi-square	Degrees of Freedom	Level of Significance
Total Self (LS<OS)	III	5.34	1	.05
Total Father (1>2)	III	4.14	1	.05
Total Father (1>2)	I-II	4.23	1	.05
Total Sibling (1<2)	III	1.94	1	.20
+ In Mother (1<2)	I-II	4.09	1	.05
- In Mother (1>2)	I-II	1.97	1	.10
+ In Self (1>2)	I-II	2.37	1	.20
+ Out Mother (LS>OS)	I-II	3.82	1	.10
+ In Sibling (LS>OS)	I-II	2.98	1	.10
+ Out Sibling (LS>OS)	I-II	2.88	1	.10
+ Out Sibling (LS>OS)	III	21.50	1	.001
+ Out Mother (LS<OS)	III	3.55	1	.10
+ Out Mother (1>2)	III	1.94	1	.20
+ In Father (1>2)	III	4.14	1	.05
- In Sibling (1<2)	III	8.64	1	.01
- In Mother (LS<OS)	III	3.07	1	.10

The results show that the adaptation of the FRT is sensitive to differences between the four positions in two-child families, between like-sex and opposite-sex complexes and between first-borns and second-borns. Validity of the measure, furthermore extends across the age-range with which the study is concerned and also across the four groups of item.

Conclusion: Cronbach and Meehl (1955) have written that construct validation is admissible when conventional methods of validation are inappropriate; Kerlinger (1964) asserts that provided a test is successful in separating subsets of a group, it is not necessary to know why it does. But: he (Kerlinger) also states that a test must validate 'the theory behind the test.'

The assumption upon which the present study was undertaken was that the adapted FRT would draw differing responses from boys in different types of family. In view of the results, it would seem there is ample justification for accepting the test as valid.

Reliability

Reliability, defined as 'the level of consistency of the measuring device' (Borg, 1965) reflects the extent to which a test will, under similar test conditions, yield similar test results.

In the present circumstance the task was to determine the extent to which the items, agreed upon by a panel of four experts, would prove to be reliable. Customary methods of assessing reliability were appraised. The test-retest method was rejected on the grounds that: (a) if too long a period divided the test-retest sessions, substantial changes in family interactions may have developed; (b) if too short a period was allowed between test and retest, then memory of the first testing would affect the second.

Neither was the split-half method, usually employed when retesting is unsuitable, considered to be quite appropriate. The grounds for rejection of this method were: (a) the choices made

by each child might not be directly comparable - some chose to share allocations between family members, some to allocate singly; (b) the items in each area are heterogeneous rather than homogeneous in nature.

The method decided upon for assessing reliability of this adapted form was the modification of the split-half method, the correlation of odd and even numbers. Product-moment correlations between odd and even items were calculated and corrected for full test reliability using the Spearman-Brown prophecy formula:

$$r_{11} = \frac{2r_{12}}{1+r_{12}}$$

where r_{11} is the estimated reliability coefficient for the whole test and r_{12} is the value obtained by correlating the two halves.

In the original form of the test, this method of establishing reliability was used. For the original test, reliability was confirmed only from results with older children, i.e. from age seven to fifteen (mean age 11.0 years). Only the sub-scores for Father, Mother and first-mentioned sibling reaching or exceeding six were considered. There was no indication of the number of children tested to provide the reliability coefficients (corrected r 's) which ranged from .68 to .90.

The technique employed by the authors of the test was considered, but was discarded in favour of the more rigorous method of including all scores, irrespective of relationship. Two sets of data were calculated: (a) for the younger children, aged 5-6 ($n = 39$) and 7-8 ($n = 39$). Overall coefficients, transformed into Fisher's z -function (which corrects for averaging) were produced; (b) for the full age-range, allocations to Mother, Father and Sibling were calculated from the responses of 75 children, 25 from each age-level. These coefficients were also corrected for averaging.

The extent to which X (odd) and Y (even) variables at each

age-level provide a zero correlation was tested using the formula (Milton Smith, 1962)

$$t = \frac{r - \sqrt{n-2}}{\sqrt{1 - r^2}}$$

The t-values obtained indicates that in each case the coefficient is significantly different from zero.

Tables VIII. 6-7 show the coefficients of reliability as calculated.

Table VIII. 6.

Coefficients of Reliability: Younger Children's Totals.

Age	n	Corrected r	t	Level of Confidence
5-6	39	.74	6.49	.01
7-8	39	.66	5.35	.01

Table VIII. 7.

Coefficients of Reliability, Ages 5-12 (n = 75)

Total Responses (40 items)	Corrected r	t	Level of Confidence
with Fathers	.73	10.02	.01
with Mothers	.82	12.27	.01
with Siblings	.87	12.78	.01

As was the case with the original, the adapted version seems reliable.

Socioeconomic Status of Parents

Differentiating between social classes is a problem which permits the use of a variety of criteria. One of the most widely-used determinants of social class is socioeconomic status. Evidence suggests occupation, of all the criteria available, is the best single index of socioeconomic position (Hall and Jones, 1950), (Young and Willmott, 1950), (Glass, 1954), (Marsh, 1965).

In New Zealand, occupations with higher earning power have, in general, higher prestige in comparison to those with lower earning power. There is an undoubted connection between occupation and standard of living enjoyed. This, in its turn may affect membership of a social class.

The ranking of occupations, as has been pointed out earlier, has been an effective and well-used device for evaluating social status in New Zealand. The Congalton-Havighurst Occupational Rating Scale (1953) has been found to be a reliable and valid single indicator of socioeconomic status in New Zealand. On this account, it has been adapted for use in this study. In this scale, occupations are arranged in a I-VII grouping.

For the present study, occupational status of each subject's father was taken from the School Progress Card (E 2/19) and occupations as listed were checked against the electoral roll. Where discrepancies occurred, class teachers ascertained the father's present vocation. Groups I-III and V-VII were classed as the high (Hi) and low (Lo) socioeconomic groups respectively. An additional treatment was used to provide finer distinctions between the various occupations listed. T-scaled ratings, as used by Lovegrove (1966) were adopted. As no satisfactory criteria against which the scale could be compared were found, validity was of the face variety. Reliabilities, based on the ratings of four judges, ranged from .817 to .897. The T-scaled ratings were utilized in the correlational analysis with the three response variables, the Hi/Lo division for the level-by-level differences between mean scores and for the analysis of FM Diametric.

The Lorge-Thorndike Intelligence Tests

For this investigation it was necessary to find a series of tests which could be used (a) at three age levels; (b) with boys beginning school; (c) as a 'new' test with New Zealand eleven- and twelve-year olds. The Lorge-Thorndike Intelligence Tests (Lorge and Thorndike, 1962) met these three requirements.

These tests are a series of tests of abstract intelligence which the authors define as 'the ability to work with ideas and relationships among ideas.' Although no precise objective criterion can be found for this definition, one reviewer (Milholland, 1959) finds it acceptable: '... one is forced to rely upon indirect evidence, inspection of items and the professional reputations of the authors for the assessment of this kind of validity. All the lines of evidence are confirmatory.'

The test is available on five levels, each level being designed for a particular American school-grade group up to and including Grade 12. Levels 1 and 2, called the Primary Battery, are appropriate for Kindergarten-Grade 1 and Grades 2 and 3 respectively. The tests are composed of three subtests: Oral vocabulary, Cross-Out (the one that doesn't belong) and Pairing (the two that go together). The items contain pictures of objects familiar to young children and simple geometric figures. The tests in the Primary Battery are composed entirely of pictorial items, so that a child who does not read well can satisfactorily cope with them.

For younger children, the test has the advantage that it is a 'power' test, not a speed test. The authors state that the Level 1 test must not be given entirely at one sitting. Level 2, on the other hand, can be given at one sitting at the discretion of the examiner. At Levels 1 and 2 instructions are orally given item by item. Thus, the examiner has adequate control over the test situation; he can adjust his speed to the needs of the groups being tested, moving slowly with some, more rapidly with others.

At Level 3 verbal and non-verbal batteries are available, each with two forms - Form A and Form B. The Level 3 verbal battery, also a power test, is given with time limits of 7, 9 and 10 minutes for each of the sub-tests. The time limits, the authors indicate, '... were chosen so that very few pupils would make a higher score if they had the time.' The verbal battery (Form A) was selected for use in the present study. As all children admitted to this research

are drawn from classes with a normal range of intelligence, the decision to use the verbal battery is defensible.

Validity and Reliability

The odd-even method of computing reliability yielded very high coefficients. These, reported in the Technical Manual (1962), range from .88 to .94. The exception to this is a coefficient of .59 at Level 2 which the authors explain as not really meaningful on account of 'a systematic alternation between geometric and pictorial items in sub-tests 2 and 3'. (ibid.)

The test's validity is judged upon a number of correlations. At Level 3 the intercorrelations cited by the authors for Grade 5 (n = 250) and Grade 6 (n = 203) children were:

with <u>Binet I.Q.</u>	with <u>Kuhlmann-Anderson I.Q.</u>
.79	.81

and, for the same sample with the Stanford Achievement Tests:

with Grade 5	<u>Reading</u>	<u>Arithmetic</u>
	.86	.77
with Grade 6	<u>Reading</u>	<u>Arithmetic</u>
	.83	.70

At Levels 1 and 2 a correlation with Stanford-Binet in a school of unspecified size was .72. The authors concluded that this correlation was quite satisfactory in view of the difficulties inherent in securing stable measures of intelligence for use with young children.

For New Zealand Use

For present purposes it was necessary to replace American terminology. This was done in an a priori manner by effecting (i) a minor alteration in the Level 3 test instructions (viz. 'rub-out' for 'erase'); (ii) modification in several items in the Primary Battery (e.g. 'cradle' for 'cot'; 'hosiery' for 'hose') and others at Level 3 (e.g. 'autumn' for 'fall'; 'petrol' for 'gasoline');

'sweets' for 'candy'.)

Particularly at Level 3 the appropriateness of the test for local conditions was dubious. As a check, and prior to testing, Otis and Lorge-Thorndike intelligence quotients for 27 intermediate school pupils were correlated. A correlation coefficient of .87 resulted so the Level 3 test was considered satisfactory for this present study. A practice administration with Level 1 and 2 with children not participating in the study indicated that the Primary Battery was viable.

Administration procedures may be summarized as follows:

Form of Test: Consumable test booklet for each level marked by the testee according to oral instructions given by examiner (a) item by item at Level 1,
(b) for each sub-section at Level 2.

Time limit for Level 3 only.

Variations from Test Manual: Instructions modified only as far as was necessary to avoid American terms; no alteration to items themselves.

Scoring: A punched-out scoring key is placed over the columns of answers on each page. Raw scores (number of correct answers) are transformed into intelligence quotients from raw score/chronological age tables.

Testing Time (approximated): Level 1 - two 15-minute sessions
in small groups (maximum 6)

Level 2 - 30-35 minutes
(small groups maximum 8)

Level 3 - 40 minutes
(groups up to 30).

CHAPTER IX

THE TEST POPULATION

In Chapter VII it was pointed out that the present research was to be carried out with boys at three age levels. In each of these levels, significant educational changes occur. At five (Level I) the child is entrusted to the care of the school;¹ at seven or eight (Level II) he moves from the infant rooms to the standard classes; at eleven or twelve he moves to the intermediate school (Level III)² where 'streaming', a wider range of subjects, more extensive extracurricular activities and specialist or semi-specialist staff³ are available to a more homogeneous age-range of pupils.

Subjects who participated in the research were males drawn from primary and intermediate schools within the city of Palmerston North. The city, with a total population of 52,000 people, is a prosperous centrally-located urban centre which serves a diversified farming district. In addition, it has a considerable number of developing light industries, a university and professional and commercial facilities for the city and its hinterland. Procedures

-
1. By December 1967, there were 32,269 children enrolled in pre-school institutions in New Zealand. The 395 play centres and 270 kindergartens cater for approximately 25 percent of the three- to five-year-old population (Report of the Department of Education for the year ended December, 1967).
 2. 10.15 percent of New Zealand's primary school children attend intermediate schools. In 1966 over 50 percent of all Form I and II children were in intermediate schools.
 3. The percentages of female assistant teachers reduces through primary (68%) intermediate (41%) and secondary schools (38%) (calculated from Education Statistics of New Zealand, (1966); N.Z. Education Department.)

followed in selecting subjects and in ensuring parental agreement have been discussed elsewhere (see Chapter VII).

At the time the research was undertaken there were eleven state primary schools and three intermediate schools in the city area. Subjects were drawn from nine of the primary schools and two intermediate schools.¹

Family Size and Ordinal Position

The present study was limited to subjects from ~~two-child~~ families, ~~one-child~~ families and ~~father-absent~~ families. Ordinal position was therefore fixed for the ~~two~~ first family types (i.e. the intact families) but not for the father-absent group. A further limitation of six-year maximum distance between siblings was imposed.

For these conditions, 244 boys were included in the study, with sub-groups as shown in the table below:

-
1. One excluded school had been used extensively in pilot testing with the Bene-Anthony Family Relations Test, ITSc and Lorge-Thornike Test, the other at express wish of the District Senior Inspector of Primary Schools. The excluded Intermediate School serviced the suburb to which access (i.e. to the school) had been denied. The exclusion of one suburb seems not to have foreshortened the socioeconomic distribution; the dispersion of subjects through categories I-VII on the Congalton and Havighurst Scale (1953) adequately meets the national situation. The distribution will be discussed more fully later in the chapter.

Table IX.1.

Test Population: Family Characteristics by Level

	Two Child Families				Singletons	Father-absent Boys	Total
	Boys with Older Bro.	Boys with Older Sis.	Boys with Younger Bro.	Boys with Younger Sis.			
	MM_2	FM_2	M_1M	M_1F			
Level I	5	12	12	9	4	8	50
Level II	11	7	10	14	6	20	68
Level III	26	20	8	26	16	30	126
Total	42	39	30	49	26	58	244

Figures IX, 1-2 present the characteristics of the test population by level and by ordinal position in histogram form.

Figure IX.1.

Total Test Population

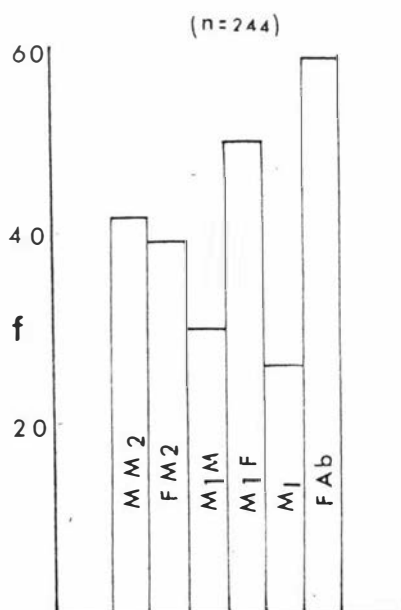
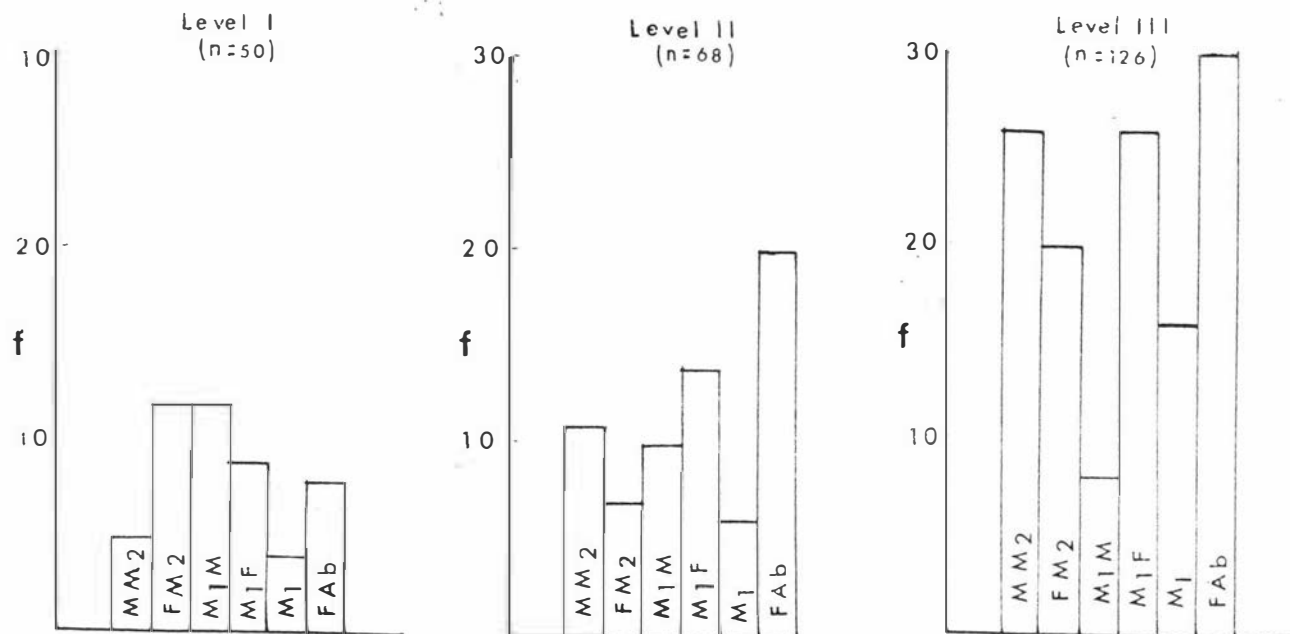


Figure IX.2.

Characteristics of Test Population by Level
and Ordinal Position



Socioeconomic Level

Like all cities Palmerston North has heterogeneous social characteristics. Social status, occupation, size of income and residential location provide clues to the social position, occupied by any family. The range of socioeconomic status in the city was noted by an earlier investigator (Freyberg, 1964). In his study he accounted for the range by 'spotting' his four test schools through above average, average and below average areas.

The present study, which includes children from the schools used by Freyberg, accounts for all seven grades of status found to be most appropriate for New Zealand (Congalton, 1953), (Havighurst, and Congalton, 1953), (Freyberg, 1964), (Lovegrove, 1966), (King, 1966).

Table IX. 2.

Distribution of Socioeconomic Rating, Levels I-III
(High I Low VII)

	I	II	III	IV	V	VI	VII	Total
Level I	0	6	5	12	8	10	1	42
Level II	0	6	6	5	11	11	9	48
Level III	3	10	9	30	11	31	2	96
Total	3	22	20	47	30	52	12	186

The ranking of these ratings compares favourably with that employed in Freyberg's sample and are shown below (Table IX.3).

Table IX.3(a)

Comparison of Socioeconomic Ratings

		Rank						
		1	2	3	4	5	6	7
Freyberg (1964)	(n=80)	VI	IV	V	II	III		
Present study	(n=186)	VI	IV	V	II	III	VII	I

The histograms shown in Figures IX.3-5 show socioeconomic characteristics for the total population, for each level and by ordinal position.

Figure IX.3.

Distribution of Socioeconomic Levels for Test Population

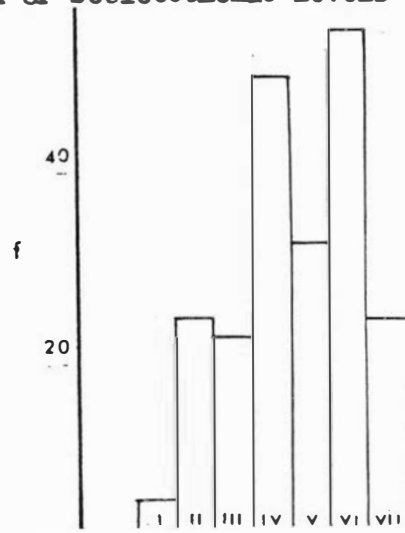


Figure IX.4.
Distribution by Level and Socioeconomic Class

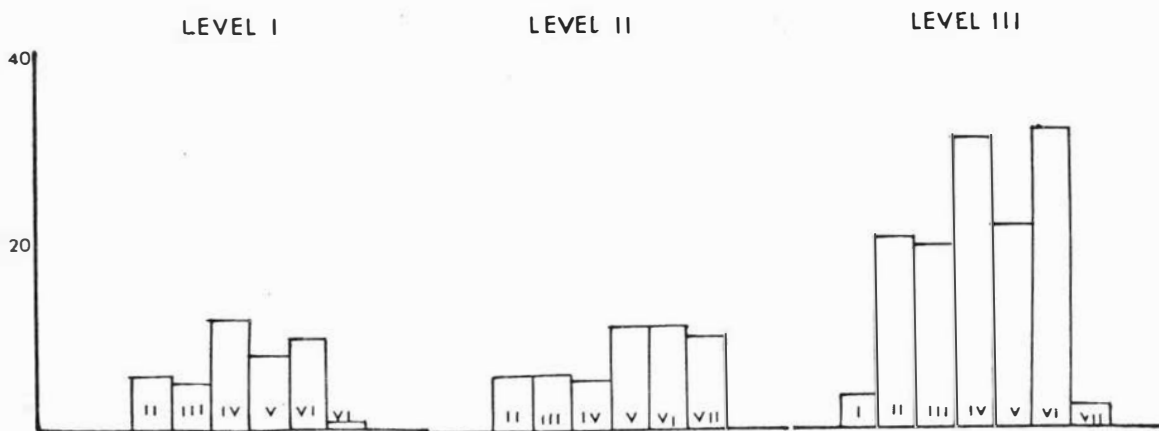
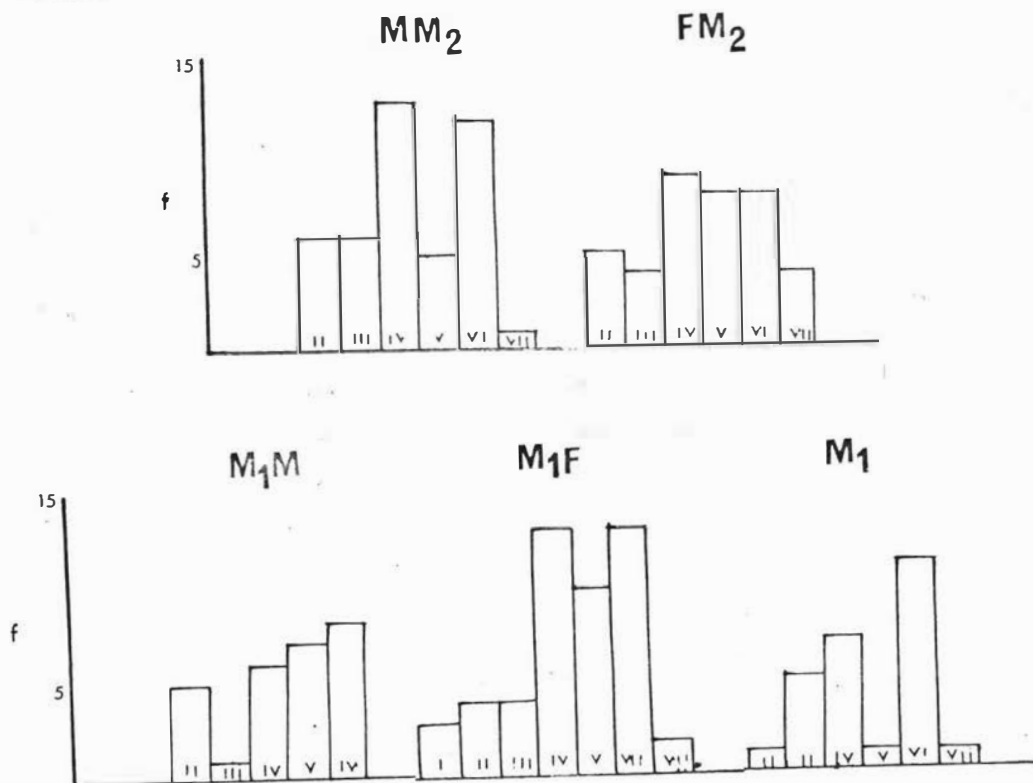


Figure IX.5.
Distribution by Ordinal Position and Socioeconomic Class



Intelligence

The primary consideration used in selecting Sa was family structure. A conference of Headmasters¹ held the view that no additional screening would be necessary to ensure an adequate distribution through the normal intellectual range of schools. This is confirmed in Table IX.3.

Table IX.3.
Distribution of Intelligence

	80	80-89	90-99	100-109	110-119	120-129	130 +	Total
Level I	2	6	7	14	19	1	1	50
Level II	5	17	21	11	12	2	0	68
Level III	4	14	28	28	20	15	17	126
Total	11	37	56	53	41	18	18	244

$F = 34.83$ $p = .05$

Results on the Lorge-Thorndike Intelligence Tests thus confirmed the Headmasters' beliefs that a conventional range of intellectual ability would be reached. The table and the accompanying histogram (Figure IX.6) indicate a positive skewing.² The extent of this displacement was tested using the formula

$$Sk = \frac{3 \text{ mean} - \text{median}}{S.D.}$$

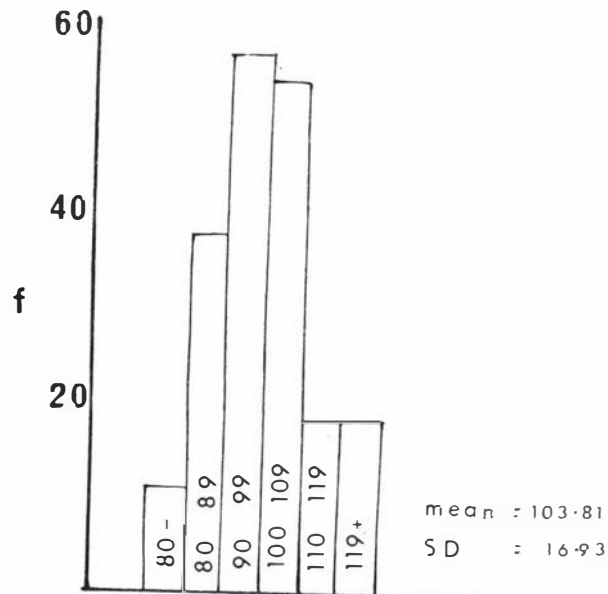
The result, .22 indicated that the degree of skewness for the 244 Sa could be disregarded. Inspection of the histograms for each level shows some increase in skewness from Level I through Level II to Level III. Results therefore must be interpreted bearing this in mind. The higher skewing at Levels II and III is caused by the high

1. The Headmasters' Association was consulted on the research in March, 1964.
2. Distributions are skewed positively when the scores are massed at the low (the left) end of the scale and spread out gradually toward the high end. (see Garrett, 1954, p. 99)

proportion of low intelligence FA boys: at Level II they account for 63 percent of I.Q. scores < 90. at Level III they account for 50 percent of the scores < 90. A simple between-groups ^{analysis of} variance for the three levels excluding FA boys yielded an F ratio of 32.29 significant at the < .05 level.

Figure IX.6.

Distribution of Intelligence for Total Sample



Finally the relevant intellectual characteristics of the research sample are shown in histogram form in Figures IX.7-9.

Figure IX.7.

Distributions of Intelligence by Level (Crosses (+) represent the distribution frequencies for intact families)

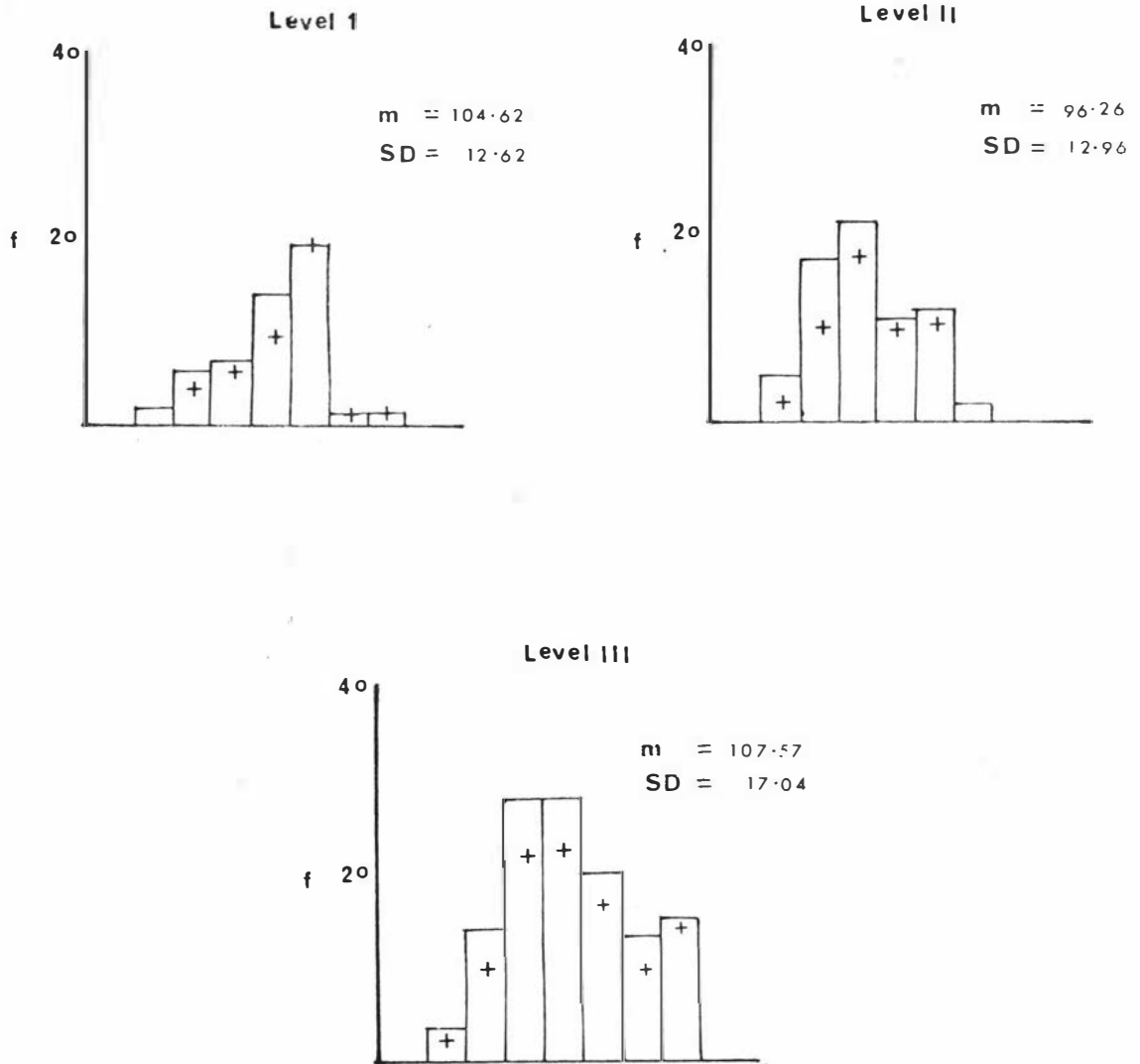


Figure IX.8.

Distribution of Intelligence by Ordinal Position
(Interval = 10 I.Q. points)

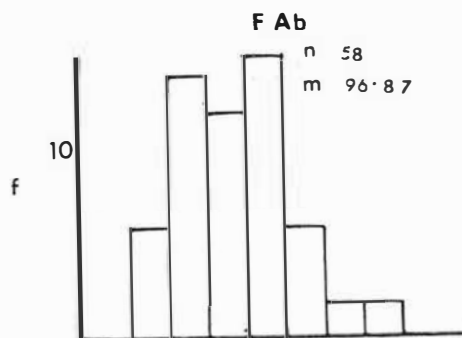
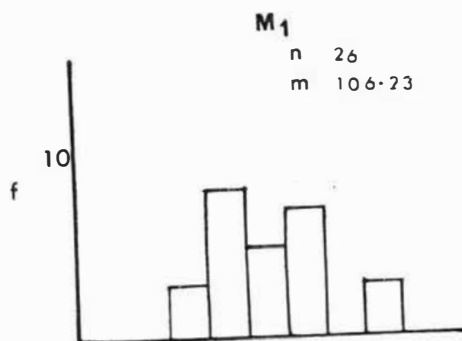
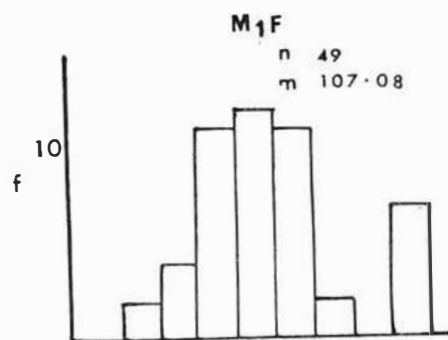
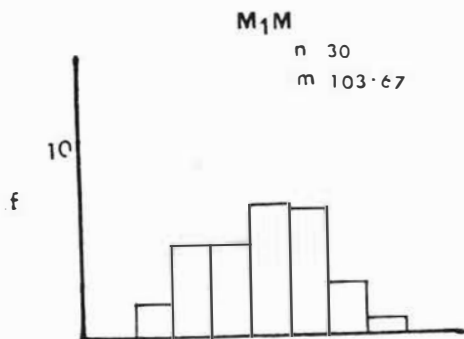
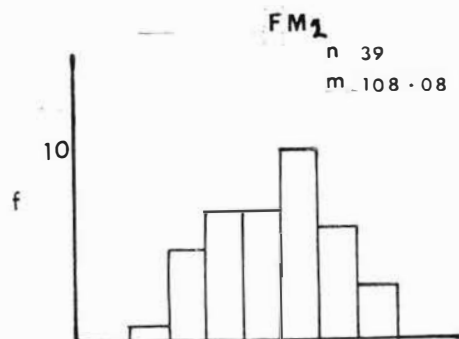
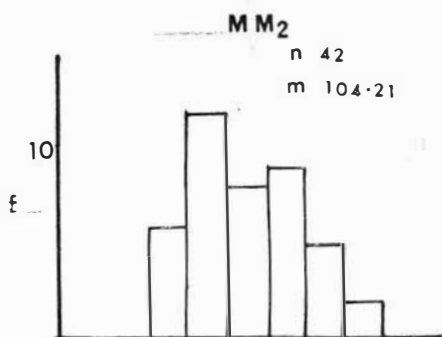
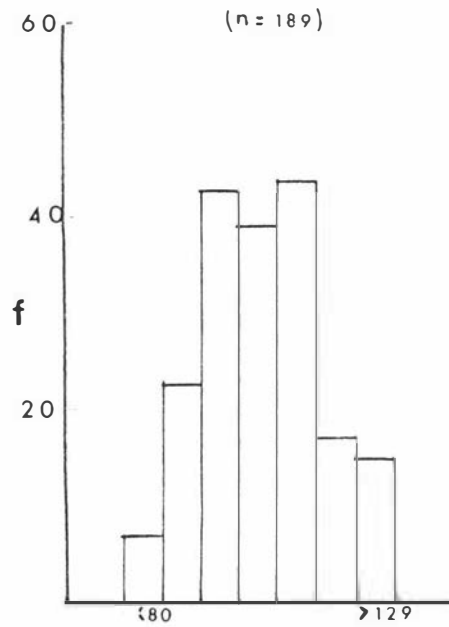


Figure II.9.
Distribution of Intelligence in Intact Families,
Total Sample.



CHAPTER X

ANALYSIS OF RESULTS

The findings obtained from the test programme are reported under a number of headings. The results for parent-child (i.e. vertical) relationships in the three types of family studied are considered first. Results for the two types of structural variables (i.e. first-born and second-born and like-sex v opposite-sex) are then considered and the section concerned with sibling (i.e. horizontal) relationships is the third intrafamilial set of findings to be reported. The two sections relating to socioeconomic status and intelligence are dealt with in turn. A concluding section, for which no hypotheses had been framed, deals with consistent increases or decreases through the three age levels in affectional correlates of the measures of masculinity and femininity.

Family Relationships

A. Vertical Relationships.

Of the two classes of relationship within the family described (Irish, 1964) as 'vertical' and 'horizontal', it is relationships of the 'vertical' type which have received the greatest attention in empirical research. In sex-role studies in particular this has been the case. In the present investigation, however, two broad classes of dyadic relationship will be considered: those with parents and those with siblings. The two basic premises upon which this section of the report rests are:

(a) that the influence of each parent on sex-role varies at different stages in a boy's development.

(b) that relations exist between sex and status of sibling and sex-role development and that these vary at different stages of a boy's life.

A general hypothesis developed from this was:

That the intensity of affectional¹ bonds with significant others in the family relates to sex-role development in boys.

This overall hypothesis will be examined and tested under the following categories for which sub-hypotheses were framed:

- I Parent-child relationships and sex-role development in two-child families.
- II Sex-role development in father-absent families.
- III Sex-role development in male singletons.

Correlation tables are compiled for each category upon which the explication and discussion is based.

The product-moment coefficients shown as totals provide an abbreviated view of relations between the three dependent variables (i.e. femininity, masculinity and sex-role preference) and parents or siblings. In Table X.1. for example, there are six significant total relations: mother-son relationships at Level I correlate positively with femininity ($r = .380$, $p = <.01$), at Level II - inversely - with sex-role preference ($r = -.261$, $p = <.05$); father-son relationships, on the other hand, are correlatives of sex-role preference at Level I ($r = .318$, $p = <.05$) and Level II ($r = .260$, $p = .05$) and of femininity at Level II ($r = .236$, $p = .10$) and Level III ($r = .217$, $p = .05$).

But the Family Relations Test with its four classes of affection enables us to get behind the totals and examine the extent to which the positive and negative incoming and outgoing feelings are associated with the dependent variables. These associations will be examined within the context of the four categories mentioned above.

I. Parent-child Relationships and Sex-role Development in Two-child Families:

a. Mother-son correlates. Table X.1. totals indicate that

-
1. In present context 'affectional' includes warm (positive) and hostile (negative) feelings directed to and from the subject.

the strong association between mother-affectual bonds and femininity, though significant at Level I ($p = < .01$) are not sustained through Levels II and III; in the two upper levels father-son correlatives are more significant (Level II: $r = .236$, $p = < .10$; Level III: $r = .217$, $p = < .05$).

The relevant hypothesis predicted:

- (1) That relationships with mothers will be more positively correlated with femininity in younger than in older sons.

Negative intake from mothers relates significantly to femininity at Levels I ($r = .301$, $p = < .05$) and II ($r = .247$, $p = < .10$). At Level II only positive incoming feelings fail to correlate significantly; at Level III only negative intake does not reach an acceptable level. The extent of developmental shift is shown by the incidence of negative correlations (3) at Level III; it will be observed that all correlations are positive at Level I. The most extreme developmental shift appears to occur somewhere between Levels II and III in + In and - Out feelings. At Level II they are positively related, but by Level III the relation is significantly inversed ($r = -.175$, $p = < .10$; $r = -.249$, $p = < .02$).

The sign test confirms Hypothesis (1) ($p = < .05$).

In Hypothesis (11) it was predicted:

- (11) That correlations between mother-bonds and masculinity will diminish over time.

Total correlations suggest the relation between maternal affections and masculinity is slender at each Level. A clear distinction emerges, however, once we get behind the totals. The distinction between 'warm' (positive) feelings and 'hostile' (negative) feelings is apparent at all levels ($p = < .10$). Warm feelings correlate positively in five conditions, significantly at Level II ($r = .274$, $p = < .05$; $r = .251$, $p = < .10$). Hostile feelings correlate inversely in four conditions, significantly in two: Level I ($r = -.480$, $p = < .01$), Level II ($r = -.249$, $p = < .05$).

When Levels I and III are examined the hypothesis is confirmed

($p = <.05$), but an interesting disruption of the developmental trend occurs at Level II which reduces credibility; very tenuous support ($p = <.37$) is given hypothesis (ii).

In hypothesis (iii) it was stated:

(iii) That correlations between maternal affectional ties and male sex-role preference will be lower in older (ie. Level II) boys.

At Level I all feelings except negative outgoing produce small but positive coefficients of correlation with sex-role preference; at Level II negative incoming and outgoing feelings are inversely related. Significant and positive relations at Level II ($r = .300$, $p = <.02$; $r = .226$, $p = <.10$) suggest the significance of the mother-son dyad as late as 7-8. The hypothesis (iii) is rejected (Sign Test: $p = <.50$).

b. Father-son correlates of sex-role development. Various theoretical explanations which were examined earlier point out that the father has displaced the mother as the salient figure by age 5-6. He becomes, theory has it, the prototype of masculine behaviour for children of both sexes. By Level III other models are believed to intervene and provide alternative personal and positional models either wholly or in part. The extent to which mothers reinforce and confirm sex-role development has been examined in various research settings, including, in the present work, the strength of relations between her affectional links and sex-role development. But father-son links have been treated summarily. Thus, such questions as 'Are affectional bonds between fathers and sons associated with sex-role development?' 'Are relationships important at some stages and not at others?' might well be asked. Questions of this type, which are clearly developmental in character, have never been asked.

A number of hypotheses were formulated in which it was predicted firstly:

(iv) That relationships with father will be more effective

correlates of masculinity in younger than in older boys.

At age 5-6 (Level I), the most immediate feature is that both negative feelings correlate inversely with masculinity and that the total ($r = -.069$) lies in the inverse direction. Incoming feelings increase in importance at Level II as sex-role preference correlatives; positive intake being the most significant ($r = .303$, $p = <.02$). No appreciable correlations occur at Level III. Although weakened associations of positive outgoing and negative feelings between Levels I and III lend some support to the hypothesis, it (Hypothesis (iv)) is rejected. It is important to note, however that although outgoing feelings do not correlate significantly with masculinity ($p = <.34$), warm feelings between fathers and sons are very significant ($p = <.01$).

Secondly, it was predicted:

- (v) That the association between father-son affections and femininity will decrease over time.

It was pointed out earlier in this chapter that totals on father-son relationships are correlatives of femininity. What was not examined was the manner in which the total correlations' strength was built up at Levels II and III or the extent to which the relationship is sustained through the three levels. In Level I there are no strong relations evident; at Level II the positive relationship between negative outgoing feelings and femininity ($r = .336$, $p = <.01$) and negative incoming feelings and femininity was expected; at Level III the significant inverse correlation between negative intake from fathers and femininity ($r = -.240$, $p = <.02$) indicated that a contributing factor in the significantly high total coefficient derives from negative feelings. Overall negative feelings exceeded positive feelings and incoming feelings exceeded outgoing feelings ($p = <.34$, n.s.).

Hypothesis (v) is therefore disconfirmed.

The association between paternal bonds and male sex-role preference, as is shown by totals, proves significant at both levels.

($r = .318$, $p < .05$; $r = .260$, $p < .05$).

Hypothesis (vi) is recalled:

That the relationship between father-son feelings and sex-role preference will increase between years five and eight.

Although the association is significant at both levels there are two notable features: (a) positive feelings are inversely or negligibly related at both levels (e.g. - Incoming, Level II = $-.325$, $p < .01$). Reasons for this are obscure but may be found within the items of the IT Scale Test which demand decisions and choice about adult objects (e.g. men's or women's shoes; shaving gear or cosmetics; cooking utensils or tools) rather than solely child-interest objects.¹

(b) A paradox: at Level I inverse, significant relations between hostile feelings and sex-role preference ($r = -.267$, $p < .10$; $r = -.356$, $p < .05$) occur at Level II, inverse correlations between warm feelings and sex-role preference ($r = -.178$; $r = -.325$, $p < .01$) occur. It is at this point that the comment about mothers confirming and reinforcing masculinity may be apposite; reciprocally warm feelings from the opposite-sex parent (i.e. the mother) relate more substantially to sex-role preference than do like feelings to and from fathers.

'Warm' feelings are no more significant than 'hostile' feelings, outgoing feelings are no more significant than incoming feelings. The most distinct finding is that the associations between affiliations with father and sex-role preferences are almost diametrically opposed at ages 5-6 and 7-8. Hypothesis (vi) is clearly rejected.

II. Parent-child relationships and sex-role development in father-absent families.

The small number of significant coefficients of correlation which occurred between parent affections and the three sex-role

1. The unattractiveness of the line drawings and incomprehensibility of one item to some Ss have been remarked upon previously.

measures (see Table X.2.) was not altogether unexpected. Two factors appear to have contributed to this: (i) the smallness of the sample at Level I and (ii) the wide variations within the generic term "father-absence". It will be recalled that the operational criterion for this category was "father not continuously present." On the surface of things, continuous, physical presence or absence would appear a manageable construct. In practice, however, this did not prove to be the case. As instances: one long-deceased father had never been known by his son; one recently-deceased was included by the subject in his test-game family; several divorced fathers had legal access to their children and continued as powerful male models for their sons; some mothers - wittingly - conveyed 'bad' father impressions to their sons; some unwittingly did so.¹

A number of hypotheses were directed towards correlatives of father-absence and sex-role. Hypothesis (1) predicted:

- (1) That correlations between affectional bonds with mothers and femininity will increase positively with age.

Two surprising features are (a) that more negative than positive relations between the variables appear at Level I (see Table X.2.) and (b) that the developmental-shift thesis is confirmed; the trend lies in quite the opposite direction from that which was anticipated. In spite of the fact that none of the relations reach a level of significance, the 'kindlier' tendency by Level III suggests a developmental trend in father-absent boys. The relation between negative feelings on mothers and femininity deserves further exploration.

It is recorded in other parts of this report that Level II subjects do more than merely delay the developmental trend in some instances. Level II father-absent boys reverse the predicted trend in the regions of positive affections. The hypothesis, which could

1. One seven-year-old indicated he did not have a father; at a subsequent interview with the mother it was intimated that the divorced father had contact with his two children every weekend.

have been accepted at the .03 level of confidence if only the outer Levels (i.e. I and III) were considered, is refuted.

Hypothesis (ii) predicted:

- (ii) That inverse relationships between affectional bonds with mothers and masculinity, important at an early age, will decrease in magnitude and number as boys grow older.

Mother correlatives and the development of masculinity produced no surprises. At Level I three of the inverse relations, though non-significant, are sufficiently high to be noteworthy. Inversion occurs in all coefficients at Level II; by Level III correlations are small but positive. The clear directional trend affords support for Hypothesis (ii) ($p < .01$).

The two predictions relating to parent-affectional correlatives of sex-role preferences can effectively be discussed conjointly.

Hypotheses (iii) and (iv) stated:

- (iii) That correlations between affectional feelings with mother and sex-role preference will decrease over time.
- (iv) That correlations between affectional feelings with father and sex-role preference will decrease over time.

The clearest differences between father and mother correlates and sex-role development in the father-absent family type appear in those concerned with sex-role preference. At Level II (see Table X.2.) the two sets of coefficients stand almost in direct antithesis. No significant relations occur in Level I, the highest $r = .585$ only approaching the .10 level. At Level II all father-centred correlations have increased in magnitude (negative outgoing excepted) and are positive; significant negative correlations between mother feelings ($r = -.519, p < .01$) $r = .524, p < .01$) and sex-role preference occur. Though no sign tests were run it is of interest to note that differences occur in the magnitude between father and mother correlatives: for fathers and sex-role preference negative feelings exceeded positive feelings and outgoing feelings exceeded incoming. For mothers negative feelings equalled positive feelings and (as for

fathers) outgoing feelings exceeded incoming feelings by three to one.

Both Hypotheses iii(a) and iii(b) are confirmed at the $< .20$ and $< .03$ levels respectively.

III. Parent-child relationships and sex-role development in only-child families.

The small number of only children at the lower levels in the city area goes part way in explaining the equivocal nature of the results. Caution must be exercised in deductions drawn from the present findings. There was one significant result at Level I (see Table X.3.), two at Level II and two at Level III. In spite of the limitations which were imposed by the small size of the available test population, hypotheses were formulated and are restated in this section:

In Hypothesis (1) it was predicted:

- (1) That relations between affectional feelings with mothers and femininity will be greater for younger boys than for older boys.

This hypothesis parallels hypotheses tested for other (i.e. two-child and father-absent) types of family. The reason behind it is that the recency of the oedipal relationship between mothers and sons will cause new-entrant school children to be affectionally closer to mothers than older - especially Level II - boys. The correlations show an interesting pattern: inverse relations (on totals) appear at Levels I ($r = -.104$, $p = < .10$) and III but not at Level II. Only negative correlations occur at Level I (cf. 2-child parallel data) whereas, at Level III the only negative relations are on positive feelings with mothers ($r = -.162$, $r = -.097$). There is evidence that a break in the developmental trend again occurs at Level II; this occurs in each of the regions of affectional feelings. It is this disjunction at Level II which confutes the hypothesis; an exclusion of Level II would cause acceptance of the hypothesis ($p = < .03$). With the inclusion of Level II, however, Hypothesis (1) is rejected.

Hypothesis (ii) predicted:

(ii)

and masculinity will decrease over time.

The coefficients of correlation for totals show a decrease between levels. Reciprocated warm feelings appear to be the most important interaction; all warm feelings are positively correlated with the exception of output towards mothers at Level I. Only one warm feeling correlates with masculinity at a significant level (Level III, positive outgoing $r = .481$, $p < .10$). Incoming-outgoing, warm-hostile feelings do not show any significance; from the sign test, results were equivocal. The small increases in the relation between both positive and negative outgoing feelings from Level I to Level II do little to confirm the hypothesis (ii) which only approaches a marginal level of significance ($p < .20$).

The relations between parent affections and sex-role preference can be discussed together. Hypotheses (iii) and (iv) stated:

(iii) That the association between affectional bonds with mothers and male sex-role preference will decrease over time.

(iv) That the association between affectional bonds with fathers and male sex-role preference will decrease over time.

There are only two significant correlations within the two levels - positive outgoing feelings for mother at Level I ($r = .889$, $p < .05$) and negative outgoing feelings from father at Level II ($r = -.905$, $p < .01$). At Level I, that is, positive outgoing feelings to mother correlate strongly with male sex-role preference. It may be conjectured that it is up to this age that mothers have greater influence than fathers in reinforcing masculinity. At the later age, masculinity, or at least that aspect of it which is measured by the ITSC, is confirmed from other quarters. The marked decrease in the Level II correlations (r 's of $-.133$, $-.609$, $.292$, $-.354$) support this prospect. It is quite clear too, as inspection

shows, that outgoing feelings toward mothers are better associated with sex-role preference.

While there may be a suggestion of confirmation ($p = < .20$), Hypothesis (iii) is disconfirmed.

At Level I the strong inverse relationship between output to fathers ($r = -.713$) stands in sharp contrast to the significant counter-part correlation for mothers noted above. Clearly, when positive and negative feelings are compared across the two levels, affectional bonds with fathers do not diminish as sex-role preference correlates over time for the male singleton. Hypothesis (iv) is rejected.

In Hypothesis (v) it was predicted:

(v) That relations between affectional feelings with fathers and masculinity will increase over time.

In two instances coefficients at Level II are lower than those at Level I and better than those at Level III - where inverse correlations occur between negative feelings for both parents and masculinity; the size of the relation in negative outgoing feelings to father ($r = -.905$, $p = < .01$) should not be overlooked. Inspection shows there are no differences between the combined outgoing and incoming feelings or between combined positive and negative feelings.

Examination of Table X.3. indicates that very limited support for the Hypothesis (v) derives from the correlations. The Hypothesis is rejected.

Hypothesis (vi) predicted:

(vi) That relations between affectional feelings with fathers and femininity will diminish over time.

It was not believed that the association would be significant or strong at any time. What was behind the hypothesis was that father-son bonds, particularly where warm, would consolidate masculine activity at the expense of feminine and this consolidation would intensify as boys grew older. The only strong association at Level I is between negative intake from father and femininity; the inversion ($r = -.852$) whilst explainable, is considerably larger than negative

Table X.1.

Correlations Between Affectional Feelings with Parents in Two-child Families and Masculinity, Femininity and Sex-role Preference

	Affectional Feelings									
	+ Out		+ In		- Out		- In		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo
<u>Masculinity</u>										
Level I	169	091	006	116	-216	-480	-129	-036	-069	-106
Level II	053	274	303	251	-121	-162	029	-249	-151	140
Level III	019	-109	003	081	019	193	-116	004	-048	-032
<u>Femininity</u>										
Level I	-009	164	051	215	143	124	223	301	167	380
Level II	-004	278	007	067	336	215	138	247	236	098
Level III	044	241	142	-175	061	-249	-240	-004	217	122
<u>Sex-role Preference</u>										
Level I	005	179	-156	027	-267	-114	-356	186	318	121
Level II	-178	300	-325	226	175	-100	-151	-058	260	-261

* p .10; two tails ** p .05; two tails *** p .02; two tails **** p .01; two tails.

Table X.1.

Correlations Between Affectional Feelings with Parents in Two-child Families and Masculinity,
Femininity and Sex-role Preference

	Affectional Feelings									
	+ Out		+ In		- Out		- In		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo
<u>Masculinity</u>										
Level I	169	091	006	116	-216	-480	-129	-036	-069	-106
Level II	053	274	303	251	-121	-182	029	-249	-151	140
Level III	019	-109	003	081	019	193	-116	004	-048	-032
<u>Femininity</u>										
Level I	-009	164	051	215	143	124	223	301	167	380
Level II	-004	278	007	067	336	215	138	247	236	098
Level III	044	241	142	-175	061	-249	-240	-084	217	122
<u>Sex-role Preference</u>										
Level I	005	179	-156	027	-267	-114	-356	186	318	121
Level II	-178	300	-325	226	175	-100	-151	-058	260	-261

* p < .10; two tails

** p < .05; two tails

*** p < .02; two tails

**** p < .01; two tails.

Table X.2.

Correlations between Affectional Feelings with Parents in Father-absent Families and Masculinity, Femininity and Sex-role Preference.

	Affectional Feelings									
	+ Out		+ In		- Out		- In		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo
<u>Masculinity</u>										
Level I	-149	-588	-858****	-573	-	028	341	-317	073	-550
Level II	-165	-086	-336	-222	219	-170	-083	-152	-217	-245
Level III	-119	032	-207	121	-103	102	-095	063	-119	-133
<u>Femininity</u>										
Level I	-396	231	299	-332	-580	-140	-138	-314	-306	-204
Level II	112	-020	274	183	102	206	281	-118	277	097
Level III	030	011	-100	-126	220	042	214	294	091	110
<u>Sex-role Preference</u>										
Level I	169	027	-244	350	447	585	095	-198	189	195
Level II	284	-519****	178	524****	299	008	242	-237	304	-608****

* $p < .10$; two tails ** $p < .05$; two tails *** $p < .02$; two tails **** $p < .01$; two tails.

Table X.3.

Correlations Between Affectional Feelings with Parents in One-child Families
and Masculinity, Femininity and Sex-role Preference

	Affectional Feelings									
	+ Out		+ In		- Out		- In		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo
<u>Masculinity</u>										
Level I	236	-246	-749	854	345	174	N.A.	560	-424	412
Level II	-705	053	-516	173	087	284	242	-675	-160	135
Level III	105	481	198	024	-283	-371	-254	-413	-076	-079
<u>Femininity</u>										
Level I	354	-820	439	-308	207	-522	-852	-662	261	-704*
Level II	531	167	188	-056	-190	-114	-535	-602	-204	559
Level III	057	-162	-046	-097	296	035	581***	124	364	-200
<u>Sex-role Preference</u>										
Level I	-713	889**	058	-250	203	512	397	230	-168	387
Level II	021	-133	565	-609	-905****	292	-598	-354	-848	-079

N.A.: Not available.

* $p < .10$; two tails ** $p < .05$; two tails *** $p < .02$; two tails **** $p < .01$; two tails.

Table X.4.

Correlations Between Parent-child Affections and Masculinity,
Femininity and Sex-role Preference < .10 Level of Significance.

Dependent Variable	Affectional Relationship	Level	Parent	Direction + or -	P <
2-child Families					
<u>Masculinity</u>	+ Out	II	Mother	+	.05
	+ In	II	Father	+	.02
	+ In	II	Mother	+	.10
	- Out	I	Mother	-	.01
	- In	II	Mother	-	.05
<u>Femininity</u>	+ Out	II	Mother	-	.05
	+ Out	III	Mother	+	.02
	+ In	III	Mother	-	.10
	- Out	I	Father	+	.01
	- Out	I	Mother	+	.10
	+ Out	III	Mother	-	.02
	- In	I	Mother	+	.05
	- In	II	Mother	+	.10
	- In	III	Father	-	.02
<u>Sex-role Preference</u>	+ Out	II	Mother	+	.02
	+ In	II	Father	-	.01
	+ In	II	Mother	+	.10
	- Out	I	Father	-	.10
	- In	I	Father	-	.02
Father-absent Families					
<u>Masculinity</u>	+ In	I	Mother	-	.01
<u>Sex-role Preference</u>	+ Out	II	Mother	-	.02
	+ In	II	Mother	-	.02
Male Singleton Families					
<u>Masculinity</u>	+ Out	III	Mother	+	.10

Table X.4. continued.

Dependent Variable	Affectional Relationship	Level	Parent	Direction + or -	P
Femininity	- Out	II	Father	-	.02
<u>Sex-role Preference</u>	+ Out	I	Mother	+	.05
	- Out	II	Father	-	.01

intake relations in larger (i.e. two-child) families. By Level III an interesting association occurs between both negative feelings ($r = .296$, $r = .581$, $p < .02$) and femininity. The difference between this correlation and that for the negative incoming feelings from fathers and femininity in Level III, two-child families ($r = .240$, $p < .02$) is noteworthy.

Hypothesis (vi) is rejected.

B. Structural Variables

First-born vs Second-born. Several research reports have indicated that more careful study of ordinal position in the investigation of personality variables is desirable (Koch, 1955-60), (Brim, 1958), (Warren, 1966). Data from the present research allow for the examination of some aspects of psychosexual development in first-born and second-born boys between the ages of five and twelve. Table X.11. provides mean scores and standard deviations for each level for first- and second-born boys on the three measures.

A general hypothesis relating to order of birth stated:

IV That relationships between birth-order and sex-role development will vary in first- and second-born boys.

To test this formulation, several hypotheses have been cast.

In the first, it was predicted:

(i) That first-born boys will be more feminine than second-born boys.

Inspection of data in Table X.5. indicates that at all three developmental levels, the mean scores for first-borns exceed those for second-borns so minimally that no significances are attained.

Table X.5.

Differences Between Means on Femininity for First-born (1st) and Second-born (2nd) Boys.

Level	Position	n	Mean Score	SD	SE _{m₁-m₂}	t	p
I	1st	21	9.86	2.85	1.22	.50	n.s.
	2nd	17	9.24	4.55			
II	1st	18	10.92	4.27	1.43	.16	n.s.
	2nd	24	10.66	5.07			
III	1st	34	6.06	4.26	.89	.18	n.s.
	2nd	46	5.90	3.93			

Hypothesis (i) is rejected.

Hypothesis (ii) which also is tested by t-tests on mean scores from the masculinity scale (feminine-dislike choices), predicted:

(ii) That second-born boys will be more masculine than first-born boys.

Through Levels I-III both groups reveal an increasing dislike of feminine games. As is shown in Table X.6. the difference between them, high at Level I ($t = 2.10$, $p = <.02$) is nonsignificant at Levels II and III.

Table X.6.

Differences Between Means on Masculinity for First-born (1st) and Second-born (2nd) Boys.

Level	Position	n	Mean Score	SD	SE _{m₁-m₂}	t	p
I	1st	21	2.76	1.99	.88	2.10	.02 (one tail)
	2nd	17	4.64	3.34			
II	1st	18	6.38	4.72	1.51	1.00	n.s.
	2nd	24	7.89	5.20			
III	1st	34	14.06	5.84	1.31	1.03	n.s.
	2nd	46	12.72	4.81			

Though some support for the hypothesis is found at Level I, the hypothesis is rejected.

It was predicted in Hypothesis (iii):

- (iii) That second-born boys will record higher male-sex-role preferences than first-born boys.

The reasons behind this formulation were (a) that where older brothers are available, second-born boys will use them for sex-role identification models and (b) that where there are older sisters, sex-typed behaviour will be apparent by age 5 and masculine activities are likely to be taught and rewarded more than in the two-male sibling constellation.

Results are surprising and are shown in Table X.7. At both Levels, mean scores for first-borns are higher; at Level II the difference (7.77) is significant ($t = 1.97$, $p = <.05$).

Table X.7.

Differences Between Means on Sex-role Preference for
First-born (1st) and Second-born (2nd) Boys.

Level	Position	n	Mean Score	SD	SE _{m₁-m₂}	t	p
I	1st	21	66.85	12.58	5.02	.14	n.s.
	2nd	17	66.18	16.71			
II	1st	18	74.27	19.03	3.93	1.97	.05 (one tailed)
	2nd	24	82.04	4.03			

Clearly, Hypothesis (iii) is only supported at Level II

Two hypotheses tested the proposition that age-changes are relevant. It was predicted:

- (iv) will decrease with age.
- (v) That masculinity in first-borns and second-borns will increase with age.

In the testing of earlier hypotheses changes from level to level in mean scores are noticed. But - are these changes consistent for both groups? And, if there is clear directional change, is the change sustained in two measures which, as some have believed, form a bipolar continuum? The sign test is used to test the questions and hypotheses.

On the femininity scale, the decrease is discontinuous; an increase in feminine-liked activities occurs in 1st- and 2nd-born groups at Level II, thus hypothesis (iv) is rejected ($p = <.34$). On the masculinity scale, a directional increase in first- and second-born mean scores is evident. Hypothesis (v) is accepted ($p = <.01$). The evidence supports the view that the two scales do not form a continuum; the somewhat simple-minded view that masculinity and femininity are bipolar opposites is not acceptable on this present form of evaluation.

The two final hypotheses postulated are that:

- (vi) The tendency for more first-borns than second-borns to be high feminine will diminish with age.
- (vii) The tendency for more second-borns than first-borns to be high masculine will diminish with age.

The FM Diametric, converted into table form in Table X.8. provides the data from which the two final hypotheses are tested.

Table X.8.

Differences Between Percentages of First-born (1st) and Second-born (2nd) Boys in High Feminine and High Masculine Zones of the FM Diametric.

Variable	Level and type	n	Percent	Diff.	SE diff.	CR	p
Fem.	I	1st	21	44	15	15.49	.96 n.s.
		2nd	17	29			
Masc.	I	1st	21	13	34	14.02	2.43 .02 one tailed
		2nd	17	47			
Fem.	II	1st	24	33	6	13.62	.44 n.s.
		2nd	18	39			
Masc.	II	1st	21	16	23	14.25	1.68 .10 one tailed
		2nd	17	39			
Fem.	III	1st	34	32	4	10.38	.38 n.s.
		2nd	46	28			
Masc.	III	1st	34	29	6	10.48	.57 n.s.
		2nd	46	35			

In this situation, the percentage comparisons yielded only two significant results; although the percentage difference is high, for example, in Level I HIF zone, the standard error of the difference which is used to determine the critical ratio determines the extent of significance. Thus, caution must be exercised in interpreting the percentages in Table X.8. The sign test cannot be applied to test the assumptions presented in the two hypotheses, but first-borns do not outnumber second-borns on femininity at Level II, so Hypothesis (vi) is confuted. Second-borns outnumber first-borns at all three levels on the masculine-high zone and, on this evidence, Hypothesis (vii) is accepted.

Discussion. This section has been limited to a comparison between first- and second-born boys. Clearly however, some consideration needs to be given to the differences (if any) which sex and status of sibling create.

For the present sample under consideration, second-borns are more masculine than first-borns: at Level I four-fifths of the findings point to the second-borns as the more masculine group; at Level II and Level III they are 'favoured' by three-fifths and three-quarters of the findings; significant findings 'favour' them by three to one.

It is clear, however, that between the ages of eight and eleven an unexplained and unforeseen change occurs: first-borns reject feminine activity more emphatically than second-borns. This observation strengthens when Table X.8. and Figure X.1. are examined; in High masculine (Fig. X.1) in addition to convergence over all ages, there is an acceleration of masculinity in first-borns between Levels II and III.

Figure X.1.

Comparison of First-born and Second-born Boys at Levels I, II and III on (a) Femininity and (b) Masculinity.

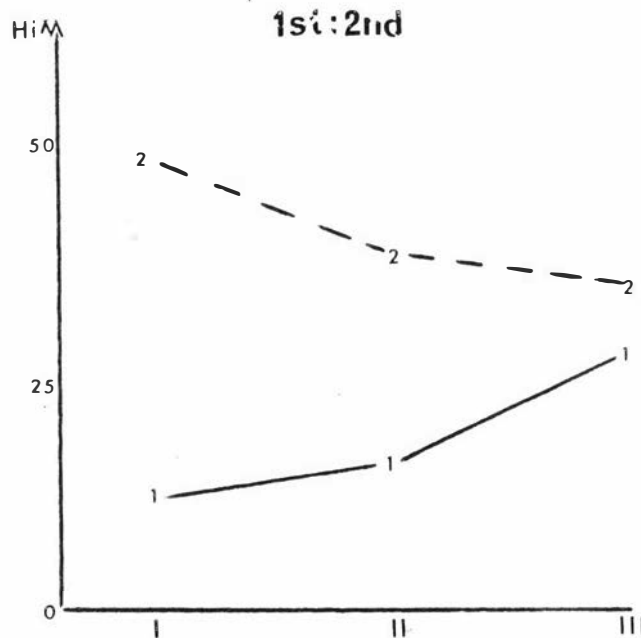
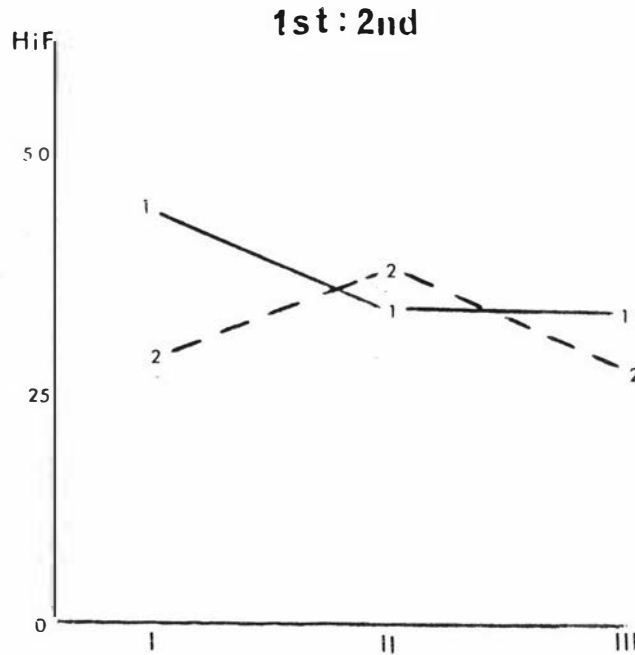
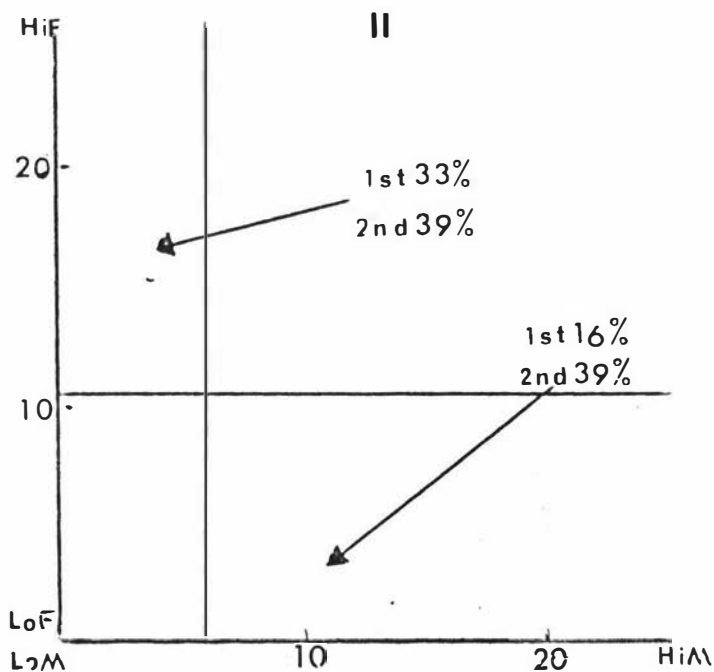
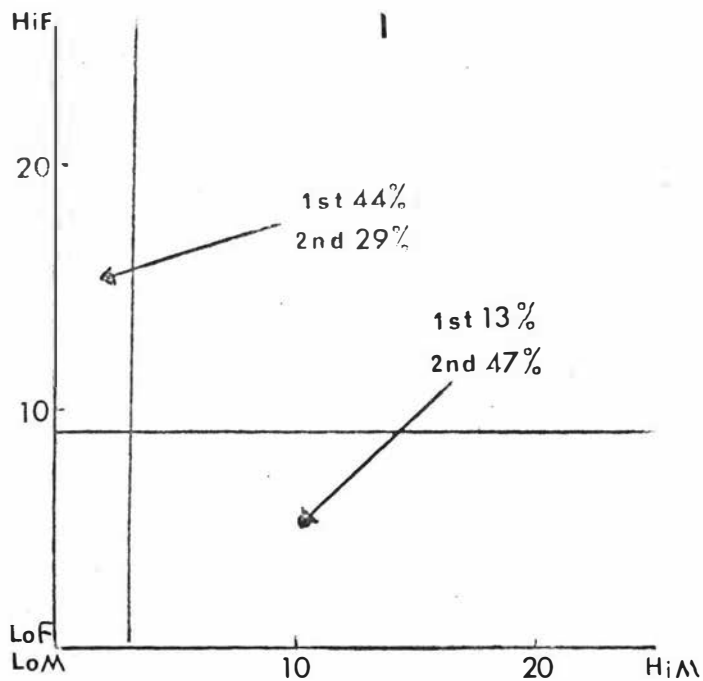
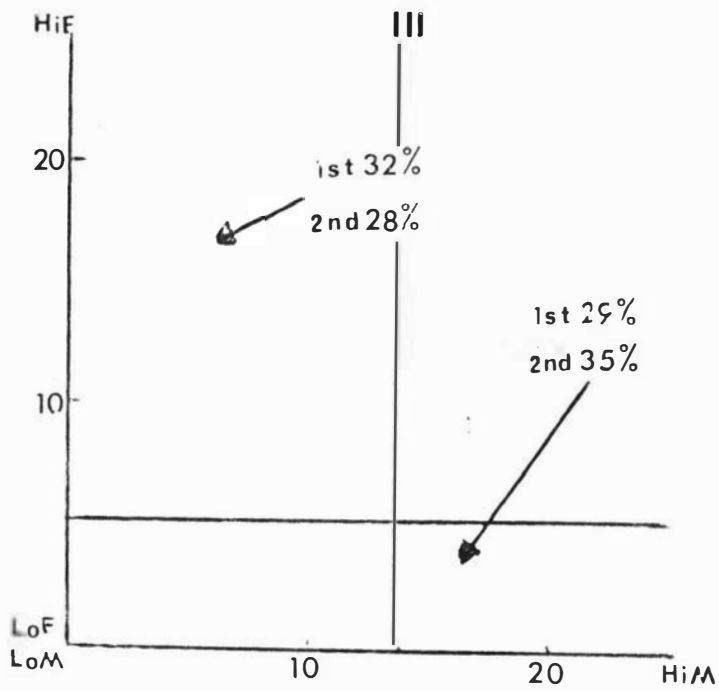


Figure X.2.

Percentages of First-born and Second-born Boys in HiF
and HiM Zones of FM Diastolic of (a) Level I (b) Level II
(c) Level III



continues



An interesting reversal occurs in HIF. First-borns, appreciably more feminine at Level I are less feminine at Level II. The reason may lie within the distribution of M_1M , MM_2 , M_1F and FM_2 , which are not considered in either the present analysis to this point; nor are they considered in much of the earlier research on ordinal position. Two earlier studies (Brim, 1958), (Rosenberg and Sutton-Smith, 1964) show that the rank order M_1M , MM_2 , M_1F , FM_2 , is the most felicitous for the acquisition of masculinity for boys aged 6-10. In the latter study, M_1M 's scoring highest on masculine and feminine scales were found to be more conflicted over their sex-role identity than any other two-child group. The situation of the M_1M boy - and others - has been briefly appraised in Table X.9.

Table X.9.

Mean Scores and Rank Positions of Boys in Two-child Families

	Family Position	n	Fem.		Masc.	
			Mean	Rank	Mean	Rank
Level I	MM_2	5	8.60	4	5.20	1
	FM_1	12	9.50	2	4.41	2
	M_1M	12	9.41	3	2.25	4
	M_1F	9	10.44	1	3.44	3
Level II	MM_2	11	10.63	2	8.81	1
	FM_2	7	10.71	3	6.42	3
	M_1M	10	12.10	1	5.70	4
	M_1F	14	10.07	4	6.85	2
Level III	MM_2	26	6.23	2	12.84	2
	FM_2	20	5.45	3	12.55	3
	M_1M	8	4.75	4	1.31	4
	M_1F	26	6.46	1	14.34	1

Numbers in the present study preclude any extravagant conclusions being drawn, but the 'plight' of M_1M at Levels II and III adds substance to the developmental proposition. The evidence suggests that M_1M may

not only be conflicted over his sex-role, but he may be conflicted for longer than previous investigators have been able to show. His predicament is further emphasised from inspection of the FM Diametric (see Page 185): at Level I (n = 12) 6 M₁M's are HIF and 2 HIM; at Level II (n = 10) 4 M₁M's are HIF, 2 are HIM; at Level III (n = 8) 3 M₁M's are HIF, 2 are HIM.

IT Scale results confounded the assumption underlying Hypothesis (iii). The causes may lie within the test rather than within the subjects, for there are items which cause choices to be made between mother activities or father activities - i.e. shaving kit or cosmetics, tools or baking articles, men's or ladies' shoes. Conceivably, these items might direct subjects away from sibling-influenced choices and second-borns with more immediate mother-dependency relations may be more susceptible to them. An inspection of family positions was made, however tentative, to illuminate a hitherto unmapped area.

Table X.10.

Mean Scores and Ranked Positions by Family Type
on IT Scale Scores.

Family Position	Level I			Level II			
	n	Mean Score	Rank	n	Mean Score	Rank	
MM ₂ } FM ₁ }	2nd Born	5	78.00	1	11	72.90	4
		12	61.25	4	7	76.42	3
M ₁ M } M ₁ P }	1st Born	12	69.33	2	10	82.20	1
		9	63.55	3	14	81.92	2

It is apparent that the smaller numbers, particularly in Level I MM₂'s allow no firm conclusions to be drawn. From the present findings, therefore, little more can be done than suggest that (1) MM₂ are more masculine than other boys at ages five and six - a

suggestion supported by masculinity scores. This possibility, if corroborated by subsequent research would confirm the 1964 research findings of Rosenberg and Sutton-Smith. More light is thrown on this question in the discussion of like-sex and opposite-sex siblings.

From the evidence available, the pursuit of birth-order as a viable correlate of psychosexual development may yet prove to be fruitful. The findings of this research bear out, with sufficient clarity, that development change of a convergent rather than a linear or even a divergent nature occurs in the boy's acquisition of sex-role identity. Birth-order is associated with these changes principally in the earlier years. What must not be overlooked, however, is the sex and status of siblings within the context of subsequent research in sex-role study.

Table X.11.

Means and Standard Deviations for First-born and Second-born Boys on Masculinity, Femininity and Sex-role Preference.

Level	n	Masculinity		Femininity		Sex-role Preference		
		Mean	SD	Mean	SD	Mean	Sd	
I	1st	21	2.76	1.99	9.86	2.85	66.85	12.58
	2nd	17	4.64	3.34	9.24	4.55	66.18	16.71
II	1st	18	6.38	4.72	10.92	4.27	82.04	4.03
	2nd	24	7.89	5.20	10.66	5.07	74.27	8.62
III	1st	34	14.06	5.84	6.06	4.26	-	-
	2nd	46	12.72	4.81	5.90	3.93	-	-

Sex composition. Like-sex - opposite-sex comparisons are drawn in the following ways: (i) on the differences between mean scores on femininity and masculinity from Levels I to III; (ii) on mean sex-role preference scores at Levels I and II; (iii) by inspection of

percentage differences between the groups in the high-feminine and high-masculine zones of the FM diastatic (see Page, 197-198).

Table X.16. gives the mean scores and standard deviations on the three measures for like-sex and opposite-sex configurations for each of the levels tested.

In an overall hypothesis relating to the association between like-sex—opposite-sex sibling structures and sex-role development, it was stated:

V That relationships between sibling sex structure and sex-role development will vary in like-sex and opposite-sex complexes.

A set of sub-hypotheses will be tested. The first predicted:

(1) That boys with opposite-sex siblings will be more feminine than boys with like-sex siblings.

Mean scores for boys in like-sex structures are lower only at Levels I and III; t-tests, as seen in Table X.12, revealed no significant differences at any level.

Table X.12.

Differences Between Means on Femininity Scores of Boys with Like-sex (LS) and Opposite-sex (OS) Siblings.

Level	Type	n	Mean Score	SD	t	p
I	LS	17	9.18	2.66	.59	n.s.
	OS	21	9.90	4.36		
II	LS	21	11.33	5.01	.72	n.s.
	OS	21	10.28	4.15		
III	LS	34	5.88	3.86	.14	n.s.
	OS	46	6.02	4.23		

The Hypothesis (i) is rejected.

In Hypothesis (ii) the prediction was:

(ii) That boys with like-sex siblings will be more masculine than boys with opposite-sex siblings.

The tendency is identical with that discussed in the testing

of Hypothesis (i); i.e. Level II boys reverse the tendencies of Levels I and III in which more masculine scores occur where boys have like-sex siblings; as Table X.13 shows none of the differences, however, reach significance.

Table X.13.

Differences Between Means on Masculinity Score of Boys with Like-sex (LS) and Opposite-sex (OS) Siblings.

Level	Type	n	Mean Score	SD	t	p
I	LS	17	3.11	2.44	.94	n.s.
	OS	21	4.00	3.67		
II	LS	21	7.33	5.89	.39	n.s.
	OS	21	6.71	3.87		
III	LS	34	12.91	5.64	.52	n.s.
	OS	46	13.56	5.32		

Hypothesis (ii) is rejected.

The prediction in Hypothesis (iii) was:

(iii) That boys with like-sex siblings will record higher male sex-role preferences than boys with opposite-sex siblings.

Table X.14. shows that although the hypothesis is confirmed at Level I ($t = 2.09$, $p = .02$), it is rejected at Level II where the difference between the means (2.77) though in the predicted direction does not reach statistical significance.

Table X.14.

Differences Between Means on Sex-role Preference Scores of Boys with Like-sex (LS) and Opposite-sex (OS) Siblings.

Level	Type	n	Mean Score	SD	t	p
I	LS	17	71.89	10.27	2.12	.05 (one tailed)
	OS	21	62.23	15.91		
II	LS	21	77.33	17.58	.66	n.s.
	OS	21	80.10	6.88		

Hypothesis (iii) is rejected.

The extent to which sex-role development proceeds in an orderly, monotonic manner was tested with two hypotheses. These, relating separately to masculinity and femininity stated:

- (iv) That femininity in like-sex and opposite-sex siblings will decrease with age.
- (v) That masculinity in like-sex and opposite-sex siblings will increase with age.

Asynchrony in both groups has been noted in testing. Hypotheses (i) and (ii). The sign test (Seigel, 1956) cannot be applied where the number of comparisons is less than five, but the consistency of disjunction at Level II causes Hypothesis (iv) to be rejected. Masculinity scores, on the other hand, increase consistently from Levels I to III in both groups; Hypothesis (v) is confirmed.

Hypothesis (vi) stated that:

- (vi) The tendency for more boys with opposite-sex siblings to be high-feminine than boys with same-sex siblings will diminish with age.

Contrary to expectation there are not more boys with opposite-sex siblings in the HMF zone; differences are not significant (by inspection). Although the percentage of HMF boys with sisters diminishes through the levels with consistency, increase in the percentage of boys with brothers in the HMF zone increases at Level II.

Table X.15.

Differences Between Percentages of Boys with Like-sex (LS) and Opposite-sex (OS) Siblings in the High Feminine (HMF) and High Masculine (HM) Zones of the FM Diametric.

Variable	Level and Type	n	Percent	Percent Difference (LS plus, OS minus) ¹
HMF	I	LS	41	+ 3%
		OS	21	
HM	I	LS	35	+ 12%
		OS	23	

Table X.15. continued.

Variable	Level and Type		n	Percent	Percent Difference (LS plus, OS minus) ¹
HIF	II	LS	21	43	+ 10%
		OS	21	33	
HIM	II	LS	21	38	+ 19%
		OS	21	19	
HIF	III	LS	34	32	+ 4%
		OS	46	28	
HIM	III	LS	34	32	- 3%
		OS	46	35	

1. No significant differences (by inspection).

Hypothesis (vi) is not supported.

It was stated:

(vii) That the tendency for more boys with like-sex siblings to be high-masculine will increase with age.

Percentage differences favour boys with brothers at Levels I and II, not at Level III where a small percentage difference (3%) indicates more boys with sisters are in the HIF zone. The percentages for HIM boys with brothers through the levels (35% - 38% - 32%) and boys with sisters (23% - 19% - 35%) effect a rejection of the Hypothesis; the difference between the two groups in the points at which decrease rather than increase in masculinity occurs is noteworthy.

Discussion. The comparison of the scores of the like-sex and opposite-sex groups on the three sex-role measures yielded inconclusive results. In view of the case advanced in the preceding (i.e. first-born--second-born) comparison this is understandable enough. The point can again be made that comparison between groups which, though superficially comparable, are complex in structure, is a deceptive strategy. Small changes within, say, the like-sex or opposite-sex complex may effect gross variations in results. Comparisons made without due regard for sex and status of siblings ignore the most fundamental of differences within the family.

Clausen and Williams (1963) have pointed out that several studies have found slight or non-significant relations between family size and social or emotional adjustment. They suggest that failure to control for variables such as socioeconomic status may be the reason for the tenuous nature of so many findings. The results from this present section of the report suggest that the diffuseness and ambiguity of such categories as like-sex/opposite-sex, first-born/late-born is equally unrewarding. Reference back to Tables X.9. and X.10. in the preceding section indicate that the finer distinctions which can be made from analyses of family positions are likely to prove more profitable than has been recognized in the past.

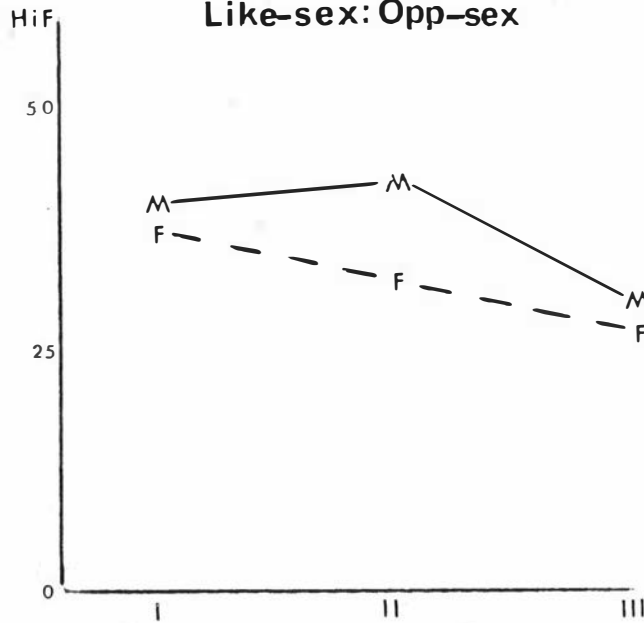
Table X.16,

Mean Scores and Standard Deviations for Boys with Like-sex Sibling and Opposite-Sex Sibling on Masculinity, Femininity and Sex-role Preference.

Level & Type	n	Masculinity		Femininity		Sex-role Preference		
		Mean	SD	Mean	SD	Mean	SD	
I	LS	17	3.11	2.44	9.18	2.66	71.89	10.27
	OS	21	4.00	3.67	9.90	4.36	62.23	15.91
II	LS	21	7.33	5.89	11.33	5.01	77.33	17.58
	OS	21	6.71	3.87	10.28	4.15	80.10	6.88
III	LS	34	12.91	5.64	5.88	3.86	-	-
	OS	46	13.56	5.32	6.02	4.23	-	-

Figure 1.3.

- (i) Comparison of Boys with Brothers (LB) and Boys with Sisters (OS) at Level I, II and III on Femininity Scale



- (ii) Comparison of Boys with Brothers (LB) and Boys with Sisters (OS) at Levels I, II and III on Masculinity Scale

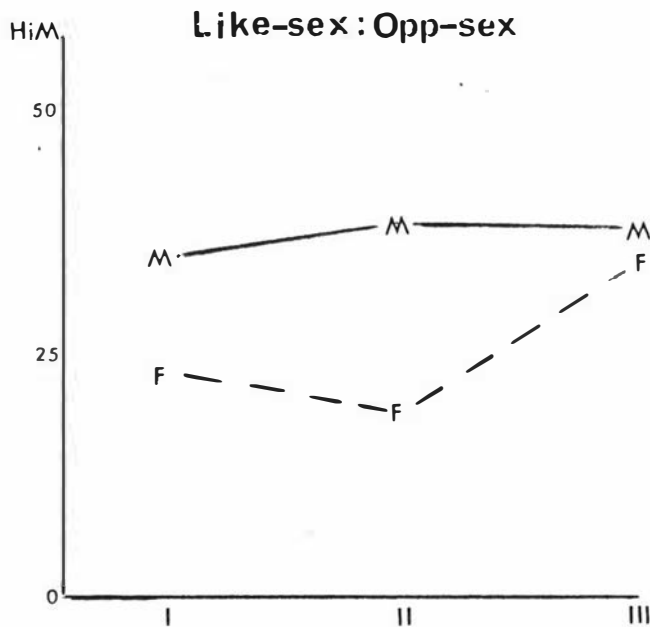
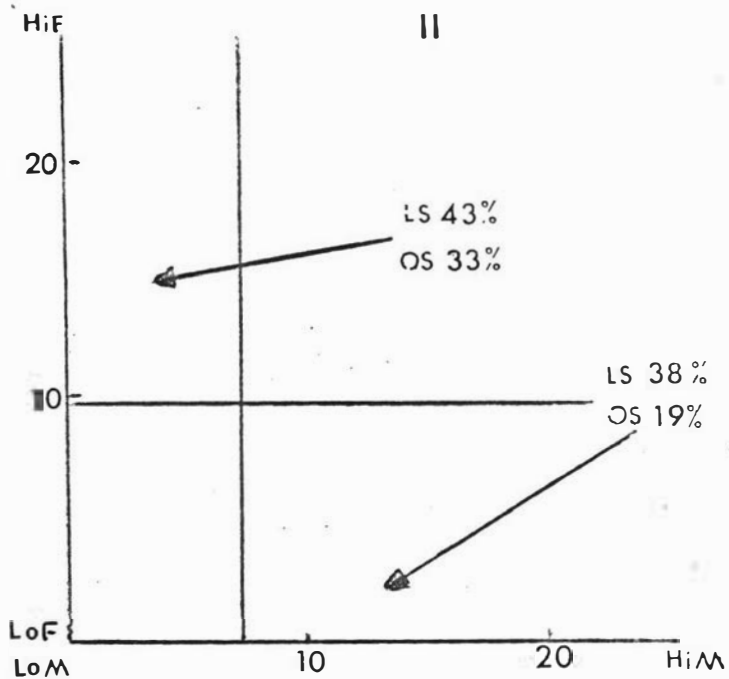
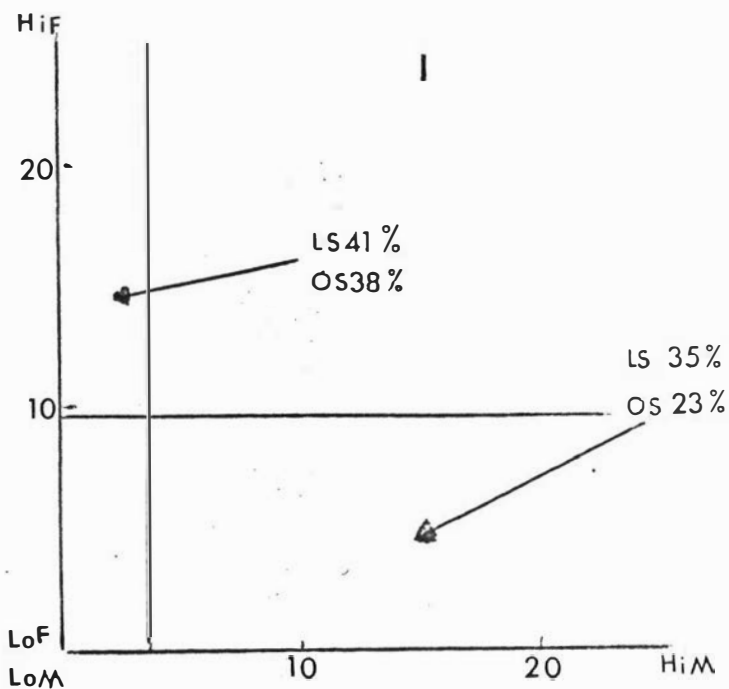


Figure X.3. (continued)

(111) Percentages of Boys with Brothers (LS) and Boys with Sisters (OS) in HiF and HiM Zones of FM Diametric at Levels I, II and III.



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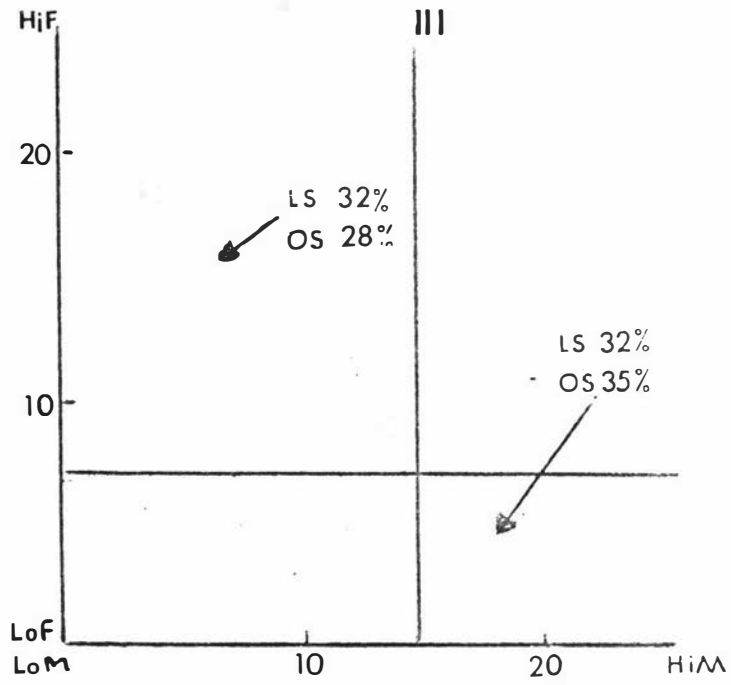


Table X.17.

Correlations between Like-sex and Opposite Sex Siblings Relationships and the Dependent Variables
(Femininity, Masculinity, Sex-role Preference)

	Like-sex					Opposite Sex				
	+ Out	+ In	- Out	- In	Total	+ Out	+ In	- Out	-In	Total
<u>Feminine Like</u> (Femininity)										
Level I	176	-041	-031	-009	042	097	191	-247	-103	-231
Level II	053	-155	-020	182	032	445	-276	167	-144	119
Level III	021	-103	-163	148	-041	222	334	693	-663	243
<u>Feminine Dislike</u> (Masculinity)										
Level I	-258	-475	389	154	063	-247	190	377	220	-008
Level II	006	217	107	-165	049	-338	043	-065	-004	-162
Level III	110	352	093	-155	119	-141	-071	125	057	032
<u>Sex-role Preference</u>										
Level I	-194	126	-147	211	108	-356	026	508	349	198
Level II	116	126	-147	211	018	225	171	-200	003	027

* p = <.10 ** p = <.05 *** p = <.02 **** p = <.01.

C. Horizontal Relationships.

In an earlier section of this investigation the equivocal nature of the findings on like-sex and opposite-sex comparisons indicated that further break-down into more rigorous categories was essential. Comparisons have been made between relationships with like-sex and opposite-sex sibling effects and the three sex-role measures, but the results, clearly inconclusive, deserve no detailed discussion here. Ranked mean scores by family type (Table X.18. below) show that some attention should be addressed to sex and status of the sibling.

Table X.18.

Ranks and Mean Scores on Three Sex-role Measures
by Family Type and by Level.

Level & Type	n	<u>Femininity</u>		<u>Masculinity</u>		<u>Sex-role Preference</u>		
		Mean	Rank	Mean	Rank	Mean	Rank	
I	Two-child	38	9.59	2	3.60	3	63.96	1
	Father-absent	8	9.62	1	4.25	2	56.62	2
	Only	4	3.50	3	5.75	1	54.00	3
II	Two-Child	42	10.80	1	7.02	2	75.48	2
	Father-absent	20	10.95	2	5.50	3	67.00	3
	Only	6	8.16	3	8.33	1	81.16	1
III	Two-child	80	5.96	2	13.28	1		
	Father-absent	30	6.13	1	12.66	2		
	Only	16	4.56	3	1.40	3		

Several features are evident from Table X.18. The father-absent boy, highest on femininity at Levels I and III is least masculine on two measures at Level II. The only boy, lowest on sex-role preference (ITSc) at Level I, consistently highest at Level II on all measures, is least feminine and least masculine at Level III.

Lansky's (1964) point concerning the need for more than bipolar m-f assessment is well taken; it is possible for the boy to be low on both masculine and feminine measures. And, pertinent to the present developmental postulation is the evidence that it is possible for him to change from age to age. For the only boy (i.e. the singleton) in the present study, both points certainly hold; the boy with a sibling is a further clear illustration: lowest on masculinity at Level I, he is highest at Level III and highest on femininity at Level II.

The masking of sex and status of sibling is unsatisfactory however. Table X.19. presents means and ranks for two-child family constellations on femininity, masculinity and sex-role preference measures.

Table X.19.

Mean Scores and Rank-Ordering on Three Sex-role Measures by Level, Sex and Status of Sibling

Level & Type	n	<u>Femininity</u>		<u>Masculinity</u>		<u>Sex-role Preference</u>		
		Mean	Rank	Mean	Rank	Mean	Rank	
Level I	MM ₂	5	8.6	4	5.2	1	78.00	1
	FM ₂	12	9.5	2	4.41	2	61.25	4
	M ₁ M	12	9.41	3	2.25	4	69.33	2
	M ₁ F	9	10.44	1	3.44	3	63.55	3
Level II	MM ₂	11	10.6	3	8.81	1	72.90	4
	FM ₂	7	10.71	2	6.42	3	76.42	3
	M ₁ M	10	12.10	1	5.70	4	82.20	1
	M ₁ F	14	10.07	4	6.85	2	81.92	2
Level III	MM ₂	26	6.23	1	12.84	3		
	FM ₂	20	5.45	3	12.55	4		
	M ₁ M	8	4.75	4	13.12	2		
	M ₁ F	26	6.46	2	14.34	1		

M_1F are shown to be most feminine at Level I, but by Level III they are the most masculine and the most feminine. At Level III FM_2 boys, on the other hand, convey no such marked attributes. A brother, younger or older, heightens sex-role preferences at Level I, but younger brothers alone heighten sex-role preference at Level II. MM_2 means are high masculine at Levels I and II; M_1M means are low masculine at Levels I and II. When the only boy (see Table X.18) is compared with boys with siblings (see Table X.19.) at Level III, he is seen to be low, perhaps embarrassingly so, on masculinity. Low femininity may be of little comfort to him.

These are tenuous findings and discussion from them, at any more than a very general level, is risky; the splitting up of the 160 one-sibling subjects by level and sibling status reduces the group-numbers to small dimensions. But, it seemed necessary to get behind the means and rank order to attempt a determination of the extent to which affectional variables are related to sex-role development. An assumption upon which this research was based necessitated that affectional correlates of sex-role development be investigated, with some cognizance being accorded sibling sex and status. This is the main burden carried by the analysis of product-moment correlations which follows.

In preceding chapters of this study (Chapter IV and VII) the neglect of interactions between siblings in child development research has been noted. In this section the main question asked is 'Are there influential relationships between sibling affiliations and sex-role development?' In accordance with the main tenets of this research, the subjects with siblings ($n = 160$) are grouped by age level and sibling status. Hypotheses were framed to test the extent of association between affectional bonds with siblings of different sex and status and sex-role measures. Affectional bonds were measured by child responses on the adapted Family Relations Test and sex-role responses (masculine and feminine) on the Play and Games List and the IT Test. Correlations, cast into Table X.20. provide

the main data for the ensuing analysis.

As in the preceding section, many of the correlations appear very small, but in work of the present nature, this is not unusual. Some comfort can be taken from a comment by Yarrow (1963) which is particularly appropriate at this juncture:

"... all who work or have worked in socialization are very familiar with clutching tenderly the correlation of $+0.21$ or the one-tailed significance test at the five percent level - barely holding out indications that 'something is there'. In defense of these methods and findings one could argue that we must be tapping significant relations ... and that indeed the correlation of $+0.21$ is meaningful if it comes through despite all the contaminants... affecting the child."

If Yarrow's injunction is to be taken seriously, then the proportion of correlations which indicate that something is there' in the present study is high. It will be recalled that three hypotheses were written to test the sibling affection--sex-role relationship. As in the previous section, the nonparametric sign test (Seigel, 1956) will be used to test significance.

In the sixth hypothesis it was stated:

VI That the association between affectional bonds and masculinity will be greater:

- (a) in boys with younger brothers (M_1M) than in boys with younger sisters (M_1F),
- (b) in boys with older brothers (MM_2) than in boys with older sisters (FM_2),
- (c) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),
- (d) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2).

(a) The inverse relation with warm feelings to and from younger sisters and masculinity is consistent at all levels. For brothers, a clear change occurs between Levels I and II, where high negative correlations on warm feelings are replaced by positive correlations; at Level III this correlation ($.732$) is significant at the $.05$ level.

Negative incoming feelings from brothers are inversely related to masculine choices at all Levels. Only limited support, however, ($p < .30$) is accorded Hypothesis VI (a).

(b) Negative correlations between positive incoming and positive outgoing feelings and masculinity, noted in M_1M and F_1M family constellations, are evident also in the two other sibling structures, MM_2 and FM_2 . This, and the negative relation between hostile feelings to and from sisters and masculinity until Level II, is the only consistent finding of any magnitude. There are no correlations of significant size for MM_2 ; two significant relations for hostile feelings to and from FM_2 ($r = .382$, $p < .10$, $r = .351$, $p < .20$) contribute to the shift from the total inverse correlation at Level I to the positive correlation at Level III. The shift to a positive total for the brothers (MM_2), on the other hand, occurs at Level II. The only noteworthy difference between positive, negative incoming and outgoing comparison for these two constellations is in outgoing feelings (positive and negative) which barely favours MM_2 ($p < .34$).

Hypothesis VI(b) is not supported.

(c) There are no significant differences between positive feelings or negative feelings for the two types of sisters. Three significant correlations for MM_2 feelings and masculinity occur, two of which are in the negative feelings region ($r = .382$, $p < .10$; $r = .351$, $p < .10$). The hypothesis VI(c) is rejected.

(d) Two high correlations ($r = .732$, $p < .05$; $r = .715$, $p < .05$) at Level III signify warm feelings are stronger correlatives of masculinity in M_1M 's than in MM_2 's. Inverse correlations in the areas of negative incoming feelings outnumber positive in both classes; negative incoming feelings, which correlate inversely, are stronger correlatives of masculine choices than negative outgoing feelings ($p < .10$). Overall, the evidence is equivocal. What little support there is for the hypothesis comes only from the larger correlations between warm feelings and masculinity returned by M_1M in the positive

feelings area ($p < .04$).

The hypothesis is only partially confirmed.

Rather clearer evidence than the foregoing appears from the femininity measure. Hypothesis VII stated:

VII That the association between affectional bonds and femininity will be greater:

- (a) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2),
- (b) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),
- (c) in boys with older sisters (FM_2) than in boys with older brothers (MM_2),
- (d) in boys with younger sisters (M_1F) than in boys with younger brothers (M_1M).

(a) There are two significant correlations both for M_1M (Level I +Out $r = .559$, $p < .05$; Level III -In $r = .685$, $p < .10$). The major difference in the pattern of correlations is that M_1M record ten positive correlations and MM_2 only three (totals excluded). The evidence is, therefore that contact with younger brothers, irrespective of whether it is positive or negative, effects an association with femininity. Hypothesis VII(a) is accepted ($p < .01$).

(b) In the two-sex families, nine correlations are positive for M_1F (three significantly) and seven are positive for FM_2 . When positive outgoing and incoming feelings are compared, the outgoing feelings are more important correlates of femininity than the incoming ($p < .10$). Thus from this, and the observations pertaining to Hypothesis ii(a) it seems that affectional feelings with younger opposite-sex siblings provide stronger associations with femininity than do those to and from older opposite-sex siblings. Hypothesis VII(b) is confirmed ($p < .01$).

(c) Comparison between the pairs of correlations for FM_2 and MM_2 indicates the extent of association with femininity. There are more inverse correlations in the two-boy family than in the

equi-sex family. That all positive feelings for MM_2 are inversely related to femininity deserves note, for there is no such grouping with FM_2 . Two significant but inverse FM_2 correlations occur at Level I with positive incoming feelings ($r = -.412, p < .10$) and negative outgoing feelings ($r = -.504, p < .10$); there are no significant correlations for MM_2 . Hypothesis VII(c) is confirmed.

(d) The groupings of correlations within M_1F and M_1M constellations have already been discussed. Inspection of the data reveal that Hypothesis VII(d) is not tenable.

From evidence drawn on masculinity and femininity thus far in the present study, it appears (a) that affectional relationships with younger siblings are more important correlatives of masculinity than those with older siblings and (b) that older brothers provide the most powerful association with low femininity of the four sibling types.

A most striking observation is that negative correlations occur at Level I between positive feelings - incoming and outgoing - and sex-role preference in all except M_1M . From all IT Scale correlations, there are five significant beyond chance, three of these being FM_2 correlations. No crystal-clear pattern emerges from the data, but MM_2 and M_1F relationships appear to stand in antithesis. At Level I all MM_2 coefficients are inverse; two are high but not significant. By contrast, M_1F correlations are all positive at Level I. At Level III three MM_2 correlations are low positive, three M_1F low negative. No such distinctions occur between any two other statuses.

In Hypothesis VIII it was predicted:

VIII That relationships between affectional bonds with siblings and sex-role preference will be positive and larger:

- (a) in boys with younger brothers (M_1M) than in boys with older brothers (MM_2),
- (b) in boys with younger sisters (M_1F) than in boys with older sisters (FM_2),

- (c) in boys with younger brothers (M_1M) than in boys with younger sisters (M_1F),
 (d) in boys with older brothers (MM_2) than in boys with older sisters (FM_2).

(a) In the two groups of brothers, total correlation coefficients are not appreciably distant from zero in either case. But the total coefficient, as has been pointed out, gives a very limited view of the complexity between affectional relationships and sex-role measures. That inverse relationships between positive feelings to and from younger brothers, and sex-role preference, evident at both levels in M_1M , (Level II positive incoming $r = -.681$, $p = <.05$) do not occur in any other constellation is noteworthy. Inverse relationships between the same variables in MM_2 occur only at Level I. Inspection of coefficients reveals that although M_1M tend towards the positive more than MM_2 , Hypothesis VIII(a) is not satisfactorily substantiated ($p = <.37$). The influence of the older brother, however, is most clearly illustrated in the negative (incoming and outgoing) correlations. As was anticipated, the strength of male sex-role preference varies inversely with the hostilities between brothers in the two-boy family. Inverse relationships with older brothers, occur in three of the four conditions.

(b) In M_1F and FM_2 types total coefficients reveal considerable decreases from Level I to Level II. Warm feelings correlate positively, though inappreciably with sex-role preference at Level I in M_1F and inversely in FM_2 ($r = -.529$, $p = <.05$ for +Out).

Hypothesis VIII(b) is however, rejected.

(c) The set of negative relations between warm feelings and sex-role preference in M_1M was mentioned in (a) above. The trend in M_1F , on the other hand, is for the relation between these variables to associate in a more positive direction. Hypothesis VIII(c) is rejected for the difference lies in the opposite direction from that predicted i.e. feelings to and from younger sisters are more positive correlatives of sex-role preference ($p = <.14$) than are those for younger brothers.

(d) Negative correlations occur between warm feelings and sex-role preference in MM_2 and FM_2 at Level I. But at Level II both change to positive. Hostile feelings at Level I expose the only contrast between the two types. This is particularly the case at Level I where negative correlations with IT Scale Scores occur in MM_2 (-In $r = -.881$, $p < .05$; -Out $r = -.558$) and positive correlations with IT Scale Scores occur in FM_2 (-In $r = .356$, -Out $r = .636$, $p < .05$). With this exception, the findings are equivocal; hypothesis VIII(d) is rejected.

Table X21. summarises the significant correlations ($p < .10$) for sibling--sex-role measures.

Table X.20.

Correlations between Affectional Relationships with Siblings and Masculinity, Femininity and Sex-role Preference.

	<u>Affectional Feelings</u>																<u>Total</u>			
	<u>+ Out</u>				<u>+ In</u>				<u>- Out</u>				<u>- In</u>				<u>MM₂</u>	<u>FM₂</u>	<u>M₁M</u>	<u>M₁F</u>
	<u>MM₂</u>	<u>FM₂</u>	<u>M₁M</u>	<u>M₁F</u>	<u>MM₂</u>	<u>FM₂</u>	<u>M₁M</u>	<u>M₁F</u>	<u>MM₂</u>	<u>FM₂</u>	<u>M₁M</u>	<u>M₁F</u>	<u>MM₂</u>	<u>FM₂</u>	<u>M₁M</u>	<u>M₁F</u>				
<u>Masculinity</u>																				
Level I	-299	-335	-359	-116	-648	-268	-486	-147	637	-430	040	583	-116	-459	-107	653*	-141	-242	-267	497
Level II	109	370	312	-445	-312	827**	362	-089	-030	-313	052	-003	-483	-220	-579	063	134	-115	-258	-277
Level III	070	-214	732**	-105	350*	-061	715**	-145	164	382	-512	-756****	-166	351*	-112	-261	126	319	211	-178
<u>Femininity</u>																				
Level I	-645	-140	559**	067	-658	-412*	386	684*	-210	-504*	214	348	-720	-113	395	-366	-832*	-431	564**	312
Level II	-145	049	234	542**	-166	-102	329	-315	075	198	-092	186	175	093	321	-263	066	195	062	162
Level III	-024	363**	-022	151	-131	095	027	416**	-222	094	463	070	071	-176	685*	073	-133	127	623*	358*
<u>Sex-role Preference</u>																				
Level I	-385	-529**	-179	009	-491	-107	-113	371	-558	636**	280	371	-881**	356	-078	319	-092	068	036	475
Level II	173	533	-282	143	116	502	-681**	-263	-300	-669*	209	-283	320	-068	173	-098	221	-365	032	-008

* p < .10; two tails **p < .05; two tails *** p < .02; two tails **** p < .01; two tails

Table X.21.

Correlations between Sibling Bonds and Masculinity
Femininity and Sex-role Preference
< .10 Level of Significance

Dependent Variable	Affectional Relationship	Level	Sibling	Direction		P
				+	-	
Masculinity	+ Out	III	M ₁ M	+		.05
	+ In	III	M ₁ M	+		.05
	+ In	III	MM ₂	+		.05
	+ In	II	FM ₂	+		.05
	- Out	III	FM ₂	+		.10
	- Out	III	M ₁ F	-		.01
	- In	I	M ₁ F	+		.10
Femininity	+ Out	I	M ₁ M	+		.05
	+ Out	II	M ₁ F	+		.05
	+ Out	III	FM ₂	+		.10
	+ In	I	M ₁ F	+		.10
	+ In	III	M ₁ F	+		.05
	- Out	I	FM ₂	-		.10
	- In	III	M ₁ M	+		.10
Sex-role Preference	+ Out	I	FM ₂	-		.05
	+ In	II	M ₁ M	-		.05
	- Out	I	FM ₂	+		.05
	- Out	II	FM ₂	-		.10
	- In	I	MM ₂	-		.05

Socioeconomic Status

It was pointed out earlier that social class has not been extensively considered in sex-role research in children and that the findings which have resulted rest chiefly upon three studies: (Rabban, 1965), (Hartley, 1960), (Hall and Keith, 1964).

Hypotheses relating to social class are tested:

(a) by a conventional correlational procedure (product-moment correlations) on T-scaled occupational ratings of the father;

(b) by the significance of differences between mean scores (t-tests) on low and high socioeconomic ratings, the 'lows' (Lo) being classes I, II and III from the Congalton and Havighurst classification, the 'highs' (Hi) being classes V, VI and VII;

(c) by a graphical and numerical comparison of high and low socioeconomic groups, in which T-scored occupational ratings are dichotomised.

Restated the overall hypothesis is:

IX That changes will occur in the relationship between socioeconomic status at different age levels.

This hypothesis is congruent with the developmental position to which the present study holds.

It is recalled that two studies (Rabban, 1950), (Hall and Keith, 1964) mentioned in the review of the literature (Chapter V) found boys from lower socioeconomic classes to be more masculine than boys from higher socioeconomic classes. With no data yet available on age-changes in the relationship between socioeconomic class and sex-role, one of the main purposes in the inclusion of this particular variable was to determine the extent to which the relationship is age-specific.

There are two factors which were considered before the results were examined. (a) Early 'ceiling' effects, evidenced in the preliminary testing, suggested that the IT Scale would be a stronger discriminator at Level I than at Level II. (b) Kohn's (1959) research attested to the greater degree of consonance between the values of

and desired social values of middle-class parents than those of working-class parents. Firstly, for present purposes, it is held that the middle-class/working-class cross-break, as used by Kohn, is not identical with that of high and low socioeconomic classes. Secondly, it is held that the acquisition of male sex-role is more compelling for boys from lower socioeconomic levels than for those from higher socioeconomic levels.

So in the hypotheses relating to sex-role preference, it was predicted:

- (1) That boys of lower socioeconomic class will show clearer sex-role preferences than boys of higher socioeconomic class.
- (ii) That inverse relationships between scores on a sex-role preference measure and social class will be more significant at Level II than at Level I.

Data pertinent to these two hypotheses are shown in Tables X.22 and X.23.

Table X.22.

Differences Between Means on Sex-role Preference
for Boys from High and Low Social Classes
(High: Scales I-III; Low: Scales V-VII)

Level	Class	n	Mean Score	SD	$SE_{m_1 - m_2}$	t	p
I	Lo	18	68.72	14.20	6.31	.79	n.s.
	Hi		63.11	17.37			
II	Lo	31	76.25	21.87	6.74	.70	n.s.
	Hi		79.48	7.57			

Table X.23.

Correlations Between T-scaled Occupational Ratings
and Masculinity, Femininity and Sex-role Preference.

Level	Masculinity	Femininity	Sex-role Preference
I	-.30 ^{**}	.32 ^{**}	-.08
II	-.096	-.03	-.29 ^{***}
III	-.02	-.01	-

** : p = .05; *** : p = .01.

Mean scores for lower-class boys at Level I (68.72) are greater than those of higher-class boys at Level II (63.11). At Level II the mean score of higher-class boys (79.48) exceeds that of lower-class boys (76.25). That is, at Level I scores lie in the predicted direction, but in Level II in the opposing direction. With neither difference reaching statistical significance, Hypothesis IX(1) is not confirmed.

Correlations between T-scaled indices and IT Scale scores (Table X.23.) are $-.08$ at Level I and $-.293$ ($p = < .01$) at Level II. The evidence, though directionally consistent, affords support to Hypothesis (ii) only at the upper level.

Hypothesis IX(ii) is partially confirmed.

Hypotheses relating to femininity (HIF activities) stated:

- (iii) That feminine-liked activities will be positively related to social class.
- (iv) That the relationship between feminine-liked games choices and socioeconomic status will be more apparent in younger than in older boys.

Results in Table X.24. indicate a significant relationship ($t = 2.25$, $p = < .05$) between socioeconomic class and femininity, as assessed through the feminine-liked play and games choices, exists only at Level I, i.e. the youngest group of high socioeconomic status boys register more feminine choices than low socioeconomic status boys. At Levels II and III findings are equivocal and lend no support to the hypotheses from either correlated scores or t-tests on means (Tables X.23. and X.24).

Table X.24.

**Differences Between Means on Femininity for Boys
from High and Low Social Classes.**

Level	Class	n	Mean Score	SD	SE $m_1 - m_2$	t	p
I	Hi	18	10.50	2.91	1.40	2.25	.05
	Lo	11	7.18	4.74			
II	Hi	31	10.65	4.54	1.64	.26	n.s.
	Lo	12	11.08	5.60			
III	Hi	44	6.09	4.57	1.12	.12	n.s.
	Lo	22	5.95	3.84			

At Level I the predicted difference is ~~supported~~^{supported} and at Levels II and III the findings are nonsignificant. Hypothesis IX(iii) is rejected;

Hypothesis IX(iv) is ^{dis-}confirmed.

Hypotheses relating to masculinity (MM) stand in clearest support of the conventionally-held view that boys from lower social classes are less masculine than higher social class boys. Masculinity is assessed from the 'feminine-dislike' scale of the Play and Game List. The hypotheses relating to masculinity stated:

- (v) That feminine-disliked (M) activities will be positively related to socioeconomic status.
- (vi) That the relation between masculine games choices (feminine dislike) and socioeconomic status will be more apparent in younger than in older boys.

Tables X.25 and X.26 show that the dislike of feminine games is stronger in boys from lower social classes at Level I. When T-scaled scores are ~~discussed~~ - as was the case with results shown in Table X.26 - a statistically significant difference ($p < .05$) between Hi and Lo occurs at Level I and a difference approaching the ten percent confidence level at Level II ($t = 1.60$, $p = < .20$).

Table X.25.

Differences Between Means on Masculinity for Boys from High and Low Social Classes.

Level	Class	n	Mean Score	SD	SEm _{1-m₂}	t	p
I	Hi	18	2.33	1.88	.89	3.99	.01
	Lo	11	6.00	2.98			
II	Hi	31	6.58	4.52	.42	.24	n.s.
	Lo	12	7.10	3.75			
III	Hi	44	12.77	5.26	0.78	.20	n.s.
	Lo	22	15.05	5.37			

Table X.26.

Differences Between Percentages of Boys in High Feminine and High Masculine Zones of FM Diametric: High Social Class v Low Social Class (T-Scores dichotomized)

Variable	Level and Class	n	Percent	Diff.	SE diff.	t	p	
Fem.	I	Hi	21	8	18	11.25	1.60	.10
		Lo	21	26				
Masc.	I	Hi	21	52	31	14.66	2.12	.05
		Lo	21	21				
Fem.	II	Hi	24	33	1	13.70	-	-
		Lo	24	34				
Masc.	II	Hi	24	37	20	12.88	1.55	.20
		Lo	24	17				
Fem.	III	Hi	48	22	5	8.77	0.56	n.s.
		Lo	48	27				
Masc.	III	Hi	48	38	0	-	-	-
		Lo	48	38				

When groups I-III and V-VII from the Congalton and Havighurst categories are compared, as is shown in Table X.25, the results are only significant at Level I ($p < .01$). At Level III no differences of any significance occur between Hi and Lo on any test.

Limited support is given Hypothesis IX(v).

Hypothesis IX(vi) is confirmed.

Discussion. The focus of the present analysis is the association between the social class variable and three components of sex-role. It is patently clear that the instruments used measure different components of sex-role development. The differences in results between sex-role preference and masculinity indicate that the present investigation confirms the theorised proposition that there is a need for multidimensional evaluation (see Chapter VII).

The general hypothesis, which provided a sounding-board for the enquiry, is confirmed. Results clearly show that changes-with-age occur. The IT Scale as used in the present study, does not prove a powerful discriminatory tool in the delineation of sex-role preferences in high and low social classes; it does show, however, that change-with-age does occur, for even although the difference it revealed between social groups was non-significant, the fact that it does show directional change between the two levels deserves closer attention. The use of the IT Scale with boys younger than age 7-8 (Level II) is deemed advisable for further work. This is in acknowledgement of the width of the gap, both in age and cognitive development between Level I and II in this investigation.

The use of the T-scaled scores as an alternative to the I-VII Congalton and Havighurst Scale proved useful in the analysis of HIF and HIM scores. As was expected, the two occupational treatments did not yield identical results. Table X.26 and the relevant graphs (Figs. X4 and X.5) show an advantage on HIM which boys from high social classes hold over boys from lower social classes when T-scaled social class scores are dichotomized. This is particularly marked at the earliest age studied and confutes the prediction.

Figure X.4.

Comparison of Boys of High (Hi) and Low (Lo) Socioeconomic Status on Femininity and Masculinity at Three Levels.

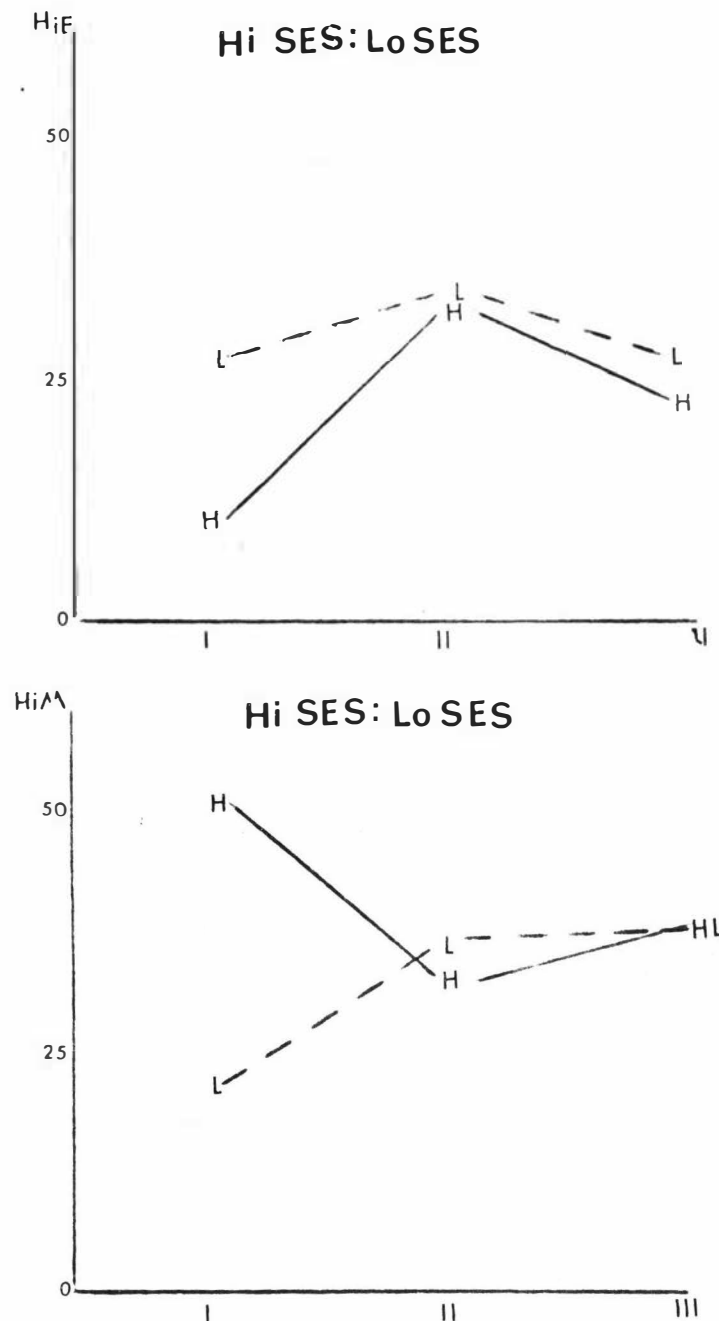
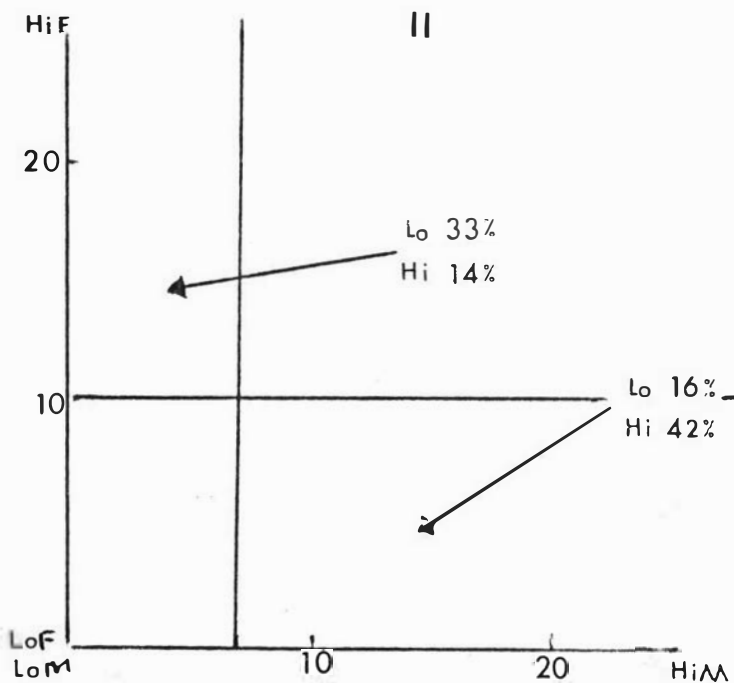
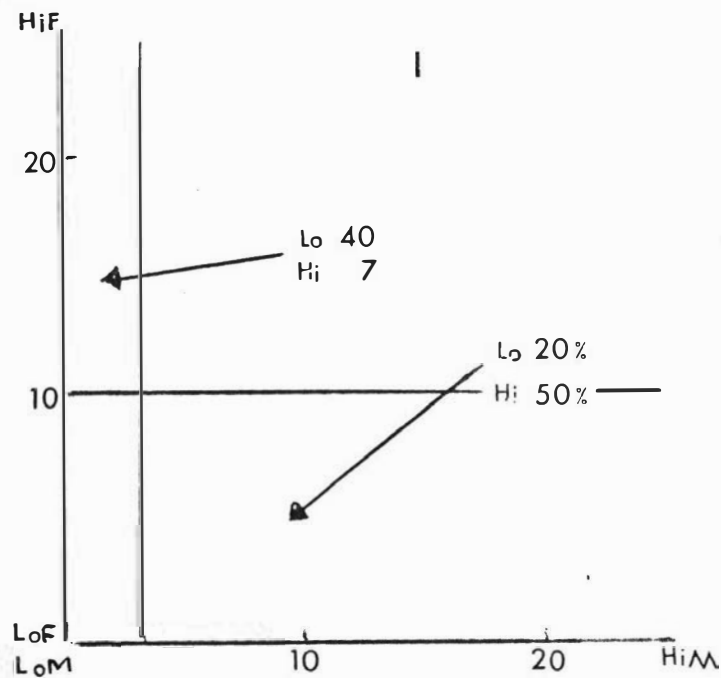


Figure X.5.

(Set 1)

Percentages of Boys of High (Hi) and Low (Lo) Socioeconomic Status in HiF and HiM Zones of the FM Diametric (by Levels)

{ Set 1: High = Socioeconomic Ratings I-III
Low = Socioeconomic Ratings V-VII }



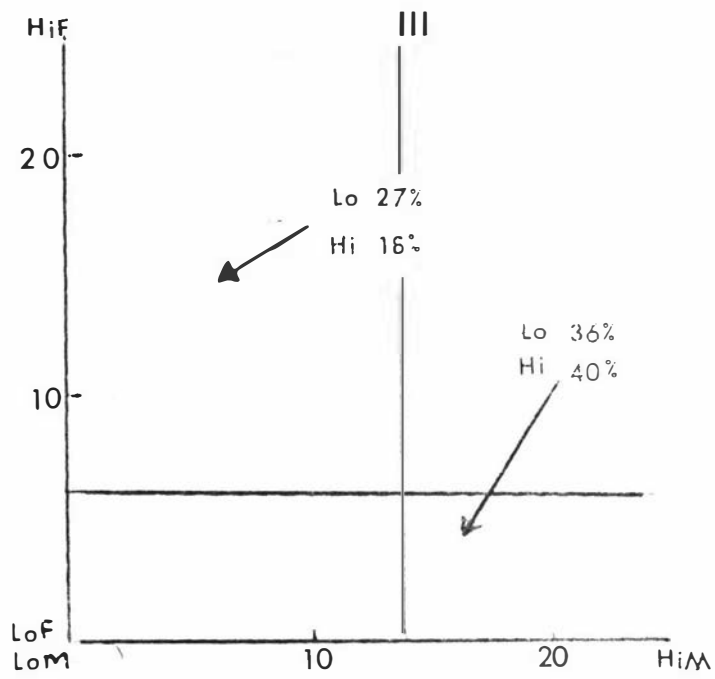
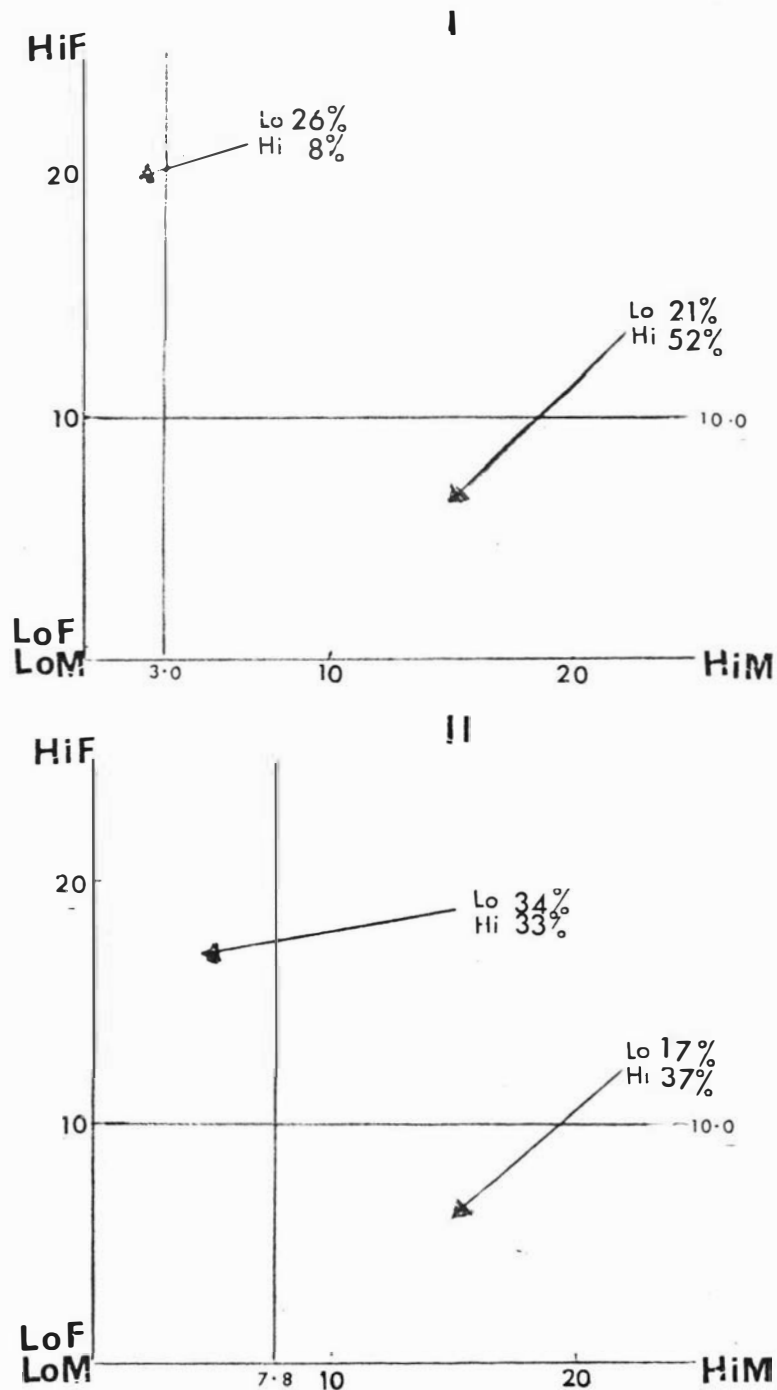


Figure 1.5.

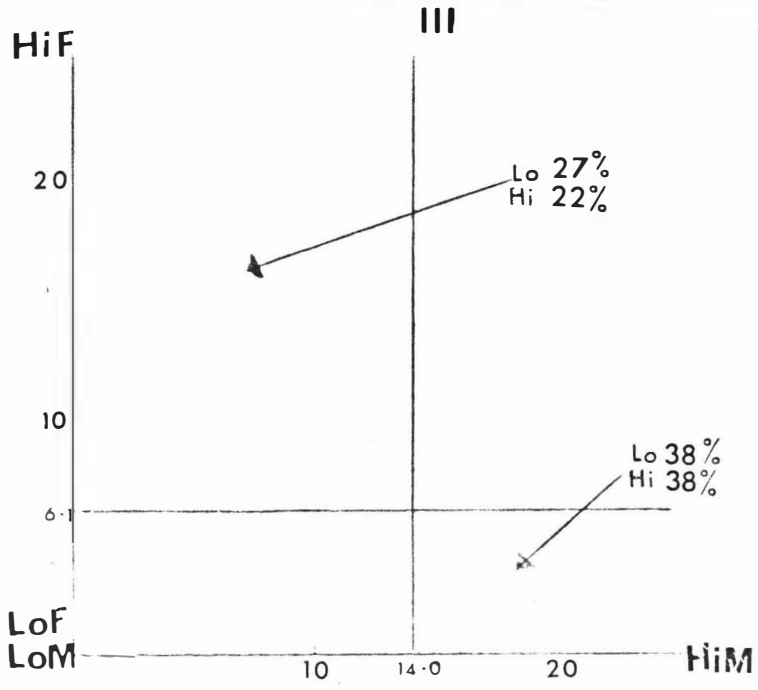
(Set 2)

Percentages of Boys of High (Hi) and Low (Lo) Socioeconomic Status in HiF and HiM Zones of the FN Diametric (by levels)

(Set 2: T-Scaled scores dichotomized)



continues



Comparison of the results of the masculinity and femininity scales (Tables X.25 and X.24) raises the question: 'Are boys aged six to eight ambivalent in sex-appropriate compartment?' Both H1 and Lo groups give more feminine likes and not many more feminine dislikes than do the younger groups; by age 11 and 12 their feminine likes are appreciably fewer whereas their feminine dislikes are much more resolutely cast. The equivocal findings on these Level II boys as are shown in Tables X.23 and X.26 add further strength to the view that social class is not an important factor in this postulated ambivalence.

By Level III no social class differences appear in the sex-role components which are measured in this study. Tables X.23, X.25 and X.26 illustrate that both H1 and Lo groups are more accepting of feminine activity at this than at either earlier level. That distinctions between the sex-role activities of H1 and Lo groups are constrained by age (i.e. within the range of activities which play and games preferences reveal), supports the developmental position which is central to this investigation.

There is one puzzling feature. In the zonal comparison which the FM diametric provides, there is a tendency in both H1 and Lo groups for higher percentages to appear in the HIF zone at the middle level and for a reduction in the percentage of high social class boys in the H1M zone. This is intriguing. Masculinity, it could be speculated, is a greater imperative in boys from high social classes in earlier years than in later. The increase in HIF zone percentages for both H1 and Lo groups at Level II suggests that between the 'outer' levels there are influences, as yet undetermined, which encourage and promote femininised activities in boys. This finding will be examined in closer detail in the concluding chapter of this report.

Intelligence

The main point at issue is the extent to which intelligence is a correlative of the sex-role components of masculinity, femininity and sex-role preference in boys. The review of literature has indicated that findings concerning the relation between intelligence and sex-role measures have produced inconclusive results. Results which have appeared (Kohlberg, 1966), (Kohlberg and Zigler, 1967) since the present investigation was begun have done much to repair this deficiency.

The overall hypothesis predicted:

X That intelligence will be a correlate of sex-role development.

It has been explicitly stated in this study that the measures used will not probe the same sex-role phenomena. On this account the sub-hypotheses bear upon the extent to which intelligence correlates with (a) sex-role preference; (b) femininity and (c) masculinity. In addition a comparison is drawn between the percentages of high intelligence and low intelligence subjects in the HIF and HIL zones of the FM Diametric.

In Hypothesis (1) it was predicted:

(1) That intelligence, as a correlative of sex-role preference, will be more significant in older than in younger boys.

That intelligence correlates positively with sex-role preference at both levels is evident in Table X.27.

Table X.27.

Correlations between Intelligence and Masculinity,
Femininity and Sex-role Preference.

Level	Masculinity	Femininity	Sex-role Preference
I	.299 [*]	-.068	.106 ^{****}
II	.246 ^{***}	-.076	.326 ^{****}
III	.032	.008	-

* $p = < .10$; ** $p = < .05$; *** $p = < .02$; **** $p = < .01$.

The significant correlation at Level II ($r = .326, p = < .01$) tends to confirm Hypothesis X(i).

Hypothesis (ii) predicted:

- (ii) That intelligence and femininity will be negatively correlated at each age and that these correlations will increase over time.

As Table X.27 illustrates, correlations are negative, non-significant at Levels I and II and for all levels are minutely removed from zero.

The Hypothesis X(ii) is not supported.

In adolescence it is known that heterosexual pursuits and sex-neutral activities cause a more tolerant approach to less-masculine things. The main point at test in Hypothesis X(iii) is whether or not for younger boys intelligence covaries with masculinity in an age-specific way. It was stated:

- That masculinity will be positively related to intelligence at each age, but that the intensity of relationship will decrease with age.

Correlations at Levels I and II are low and significant ($r = .299, p = < .10$; $r = .246, p = < .02$) but by Level III the relationship is almost zero ($r = .032$). The diminution in size of the correlations supports Hypothesis (iii) but the 'positive relation' predicted does not hold for Level III.

The hypothesis is partially confirmed.

Hypothesis X(iv) and (v) predicted:

- (iv) That boys high on femininity will be of low intelligence but that the association will decrease with age.
- (v) That boys high on masculinity will be of high intelligence but that the association will diminish with age.

Table X.28 and Figure X.7 show that the combination of feminine-like and feminine-dislike scores to produce the FM Diametric can provide an illustration of changes in sex-role linked to intelligence (Hi or Lo) and age (Level I - Level III).

Table X.28.

Differences Between Percentages of High Intelligence and Low Intelligence Boys in High Masculine and High Feminine Zones of the FM Diametric.

Variable	Level & Intelligence	n	Percent	Diff.	SE diff.	t	p	
Fem.	I	Hi	25	32	24	13.62	1.76	.10
		Lo	25	56				
Masc.	I	Hi	25	24	12	10.73	1.12	n.s.
		Lo	25	12				
Fem.	II	Hi	34	29	12	11.46	1.05	n.s.
		Lo	34	41				
Masc.	II	Hi	34	32	12	11.68	1.03	n.s.
		Lo	34	44				
Fem.	III	Hi	63	24	2	2.49	.03	n.s.
		Lo	63	22				
Masc.	III	Hi	63	33	11	8.61	1.28	.20
		Lo	63	44				

The percentage of all boys in the HiF zone diminishes with age (Sign Test $p = < .01$), the percentage of all boys in HiH zone increases with age (Sign Test $p = < .18$). Figure X.6 shows an earlier overtake of the high intelligence boys by the low intelligence boys on masculinity. More (2 percent) high intelligence boys are HiF at Level III; the difference is nonsignificant.

Hypothesis X(iv) is confirmed.

Hypothesis X(v) is given only limited support.

Figure 2.6.

Comparison of Boys with High (Hi) and Low (Lo) Intelligence on Femininity and Masculinity Scales (Levels I, II and III)

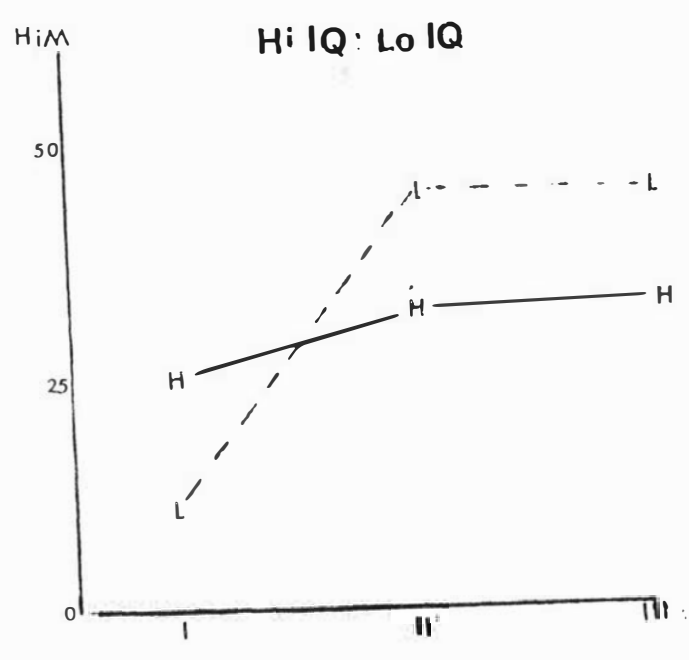
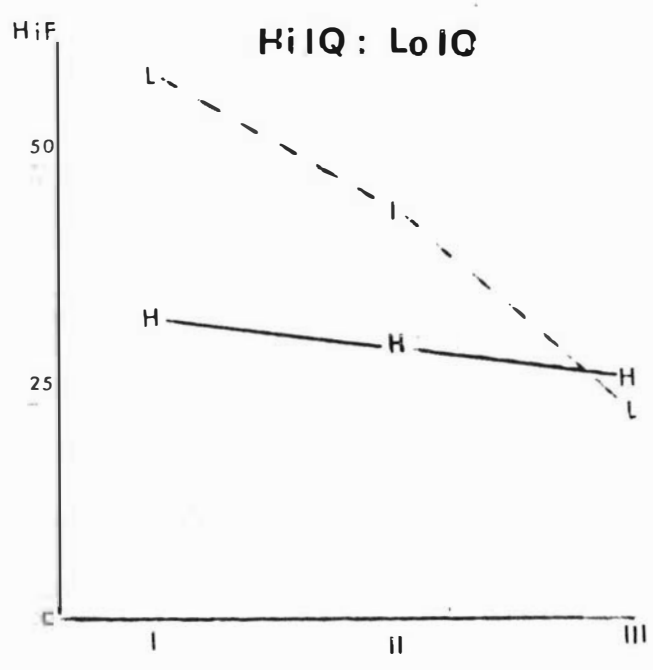
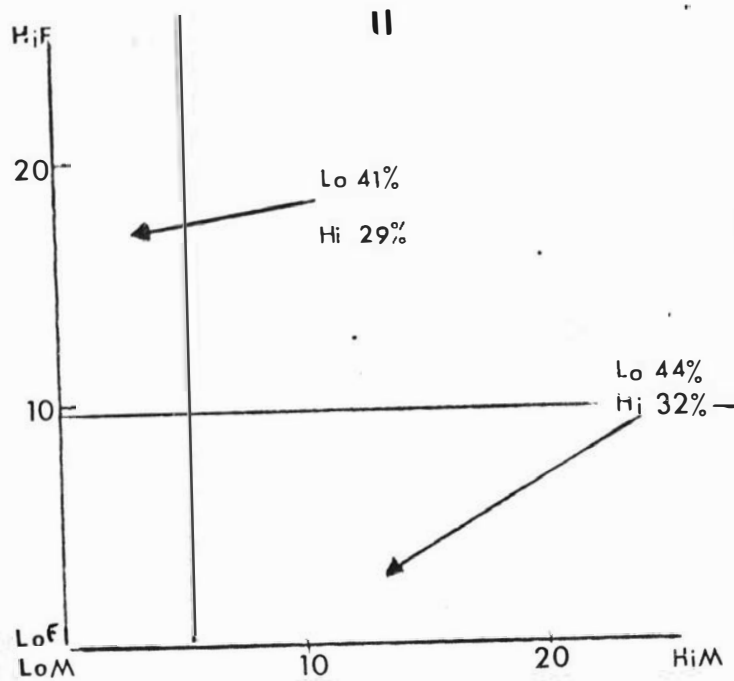
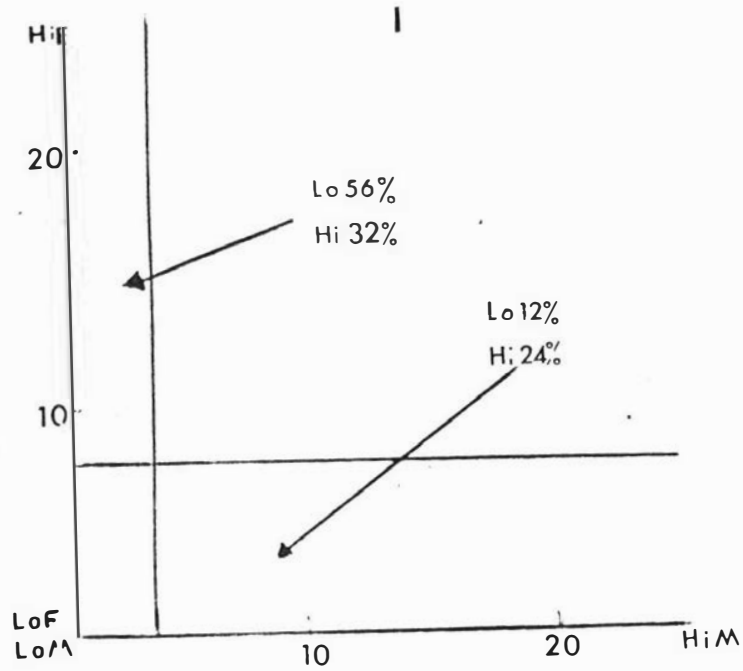


Figure X.7.

Percentages of Boys of High (Hi) and Low (Lo) Intelligence
in HiF and HiM Zones of FM Diametric



continues

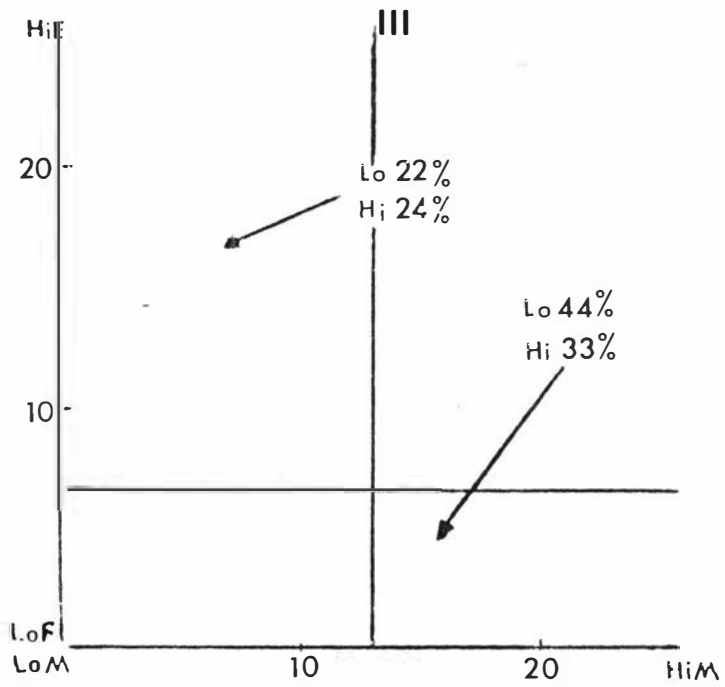


Figure X.8.

Line Chart to Show Consistent Increments and Decrements
from Level I to Level III in Family-Affectional
Correlates of Masculinity and Femininity.

see overleaf

Discussion. The influence of cognitive factors in psychosexual development has been accorded little attention by psychoanalytic and social learning theorists. What has not yet been formulated in any detail is a theory in which cognitive factors in psychosexual development are considered, even if not incorporated. Kohlberg's explication of a 'cognitive-developmental' theory rests upon somewhat slender evidence drawn principally from his own experimental work with 64 children. Whilst recognizing that the cognitive-developmental view stands essentially as an heuristic device at the present time, the findings from the present research, while not in themselves compelling, lend some support to a cognitive-developmental elaboration of psychosexuality.

The view which this section of the report supports is one of developmental convergence.¹ According to this view, boys of high intelligence would be appropriately masculine at earlier ages than boys of low intelligence who will, in due time, reach the same level of masculinity as the brighter ones. Thus the high intelligence group would show a faster, positive increase in sex-role scores before convergence occurs. Such situations as well as involving faster learning, demand greater discrimination between cultural phenomena. As has already been pointed out (see Chapter VII), many sex-appropriate behaviours are not explicitly spelled out for children; brighter children therefore would be able to - and expected to - pick up cues earlier and more readily than the less bright.

Work on the present research has shown two things. First, that in the instruments used, cues are not equally hidden; second, that boys vary in cue-sensitivity. The IT Scale cards are very unsubtle and socially-inappropriate alternatives (i.e. feminine alternatives) would be readily discerned by none-too-bright eight- or nine-year-olds. Masculine choices, from the Play and Games List,

1. Linear parallelism on the other hand, necessitates that differences between the two groups remains relatively constant.

were less obvious to Se. Thus: 'is archery masculine?', 'is climbing feminine?' may have been questions which passed through young cue-sensitive minds. The greatest differences between high and low intelligence occurred on the femininity scale, noted especially at Level I. It may be that the masking of cues on this scale is the reason behind the greater power of discrimination it holds when compared with the other two measures.

The view that 'intelligence as a concomitant of sex-role is important as late as the age of 7' (Kohlberg and Zigler, 1967) is supported by the present findings. Brighter boys have an initial advantage in the acquisition of their appropriate sex-role. Their initial advantage does not persist beyond Level II however.

Present results are in concord with the developmental interpretation which provided the groundplan, not merely for this section, but for the study in general.

Affectional Correlates of Masculinity and Femininity

Although no hypotheses were formulated to deal with consistent increment or decrement in affectional correlates, the inclusion of this section in the research report is justified on the grounds that developmental changes may reveal shifts in the extent to which affectional links with parents or siblings covary with sex-role development. The accompanying chart (Fig. X.8.) presents, in summary form, consistent increases or decreases from Level I to Level III. Throughout this study, Level I data are presented first. This is practice to represent increase in the chart; the arrow thus points downward (\downarrow). Decrease is shown by the arrow pointing upward (\uparrow). Correlations and levels of significance are also shown.

Fathers and mothers: In the two-child family the correlation between outgoing feelings for fathers increases in size as a correlate of masculinity. At Level I, the correlation is inverse for negative outgoing feelings; by Level III a near-zero coefficient

is recorded. In positive outgoing feelings, the size of the relation diminishes to near-zero at Level III. Negative outgoing feelings for mothers, inversely related at Level I ($p = <.01$), become positively related by Level III ($p = <.10$).

There are no other consistent trends across the three levels. The most apparent finding is that incoming feelings from fathers relate inconsistently and correlate appreciably only at Level II; for positive incoming feelings ($r = .303$; $p = <.02$), for negative incoming feelings ($r = .249$; $p = <.02$). The inconspicuousness of consistent trends in correlations between mother-affectations and masculinity is less surprising than the low correlations between positive relationships with fathers and masculinity.

Affectional correlates in the absent-father family provide interesting data. Warm incoming feelings from fathers correlate inversely throughout ($p = <.01$). Hostile feelings from him, positively associated at Level I, are inversely associated by Level III. Inverse relations exist between positive feelings (outgoing and incoming) and negative incoming feelings to and from mothers at Level I, but all have become positive and small by Level III.

In the only-child family, incoming feelings from fathers improve as masculine correlates. Positive incoming feelings are high and inversely related (cf. mothers below), but by Level III the association is positive. Warm feelings to and from mothers are the only affiliations in which a consistent trend is recorded; positive outgoing feelings, inversely related at Level I, are positive and significant by Level III ($p = <.10$). Positive incoming feelings (see above), highly correlated at Level I ($r = .854$), show negligible association by Level III.

Siblings: Differences in consistent developmental direction occur within the four sibling constellations. For younger (M_1M) and older (MM_2) brothers, the association between positive outgoing feelings and masculinity changes from an inverse relation at Level I

to positive at Level III ($p < .05$). There are clear directional trends for sisters. These are a change in negative incoming feelings from older (FM_2) sisters and negative incoming feelings from younger (M_1F) sisters. The first (FM_2) change from negative at Level I to positive at Level III, the second (M_1F) from positive at Level I ($p < .10$) to negative at Level III. Negative outgoing feelings for M_1F , from correlating positively at Level I, correlate inversely, at Level III ($p < .01$).

Although it is not easy to comprehensively sum up so complex a set of directional trends, some clear features demand comment. Firstly, there are distinct differences between family types; fathers and mothers are not equally significant - or insignificant - in all three. Incoming feelings from absent fathers are weaker correlates at Level III than at Level I; what positive feelings the singleton has for his mother become, over time, less important than those she has for him. Negative outgoing feelings for both fathers and mothers in the two-child complex decrease in correlational significance over time. Secondly, consistent increases or decreases in associations between affectional bonds with parents and masculinity are much weaker than the social-learning theory of identification would have caused us to anticipate.

And for siblings there is an increase in the size of correlations for positive feelings to and from brothers with age and a decrease, though less marked than the increase on brothers, in negative feelings to and from sisters. To conclude, the M_1M total increase is complemented by a total decrease in M_1F .

In the general analysis of sex-role development, an implicit assumption has been that sex-role development occurs in a systematic developmental direction. One conclusion drawn from this study is that affectional bonds do not all offer consistent linear development; of the forty four possible linear consistencies between affectional links and masculinity, eighteen have resulted. The reasons for the greatest number of interruptions occurring, as they do in Level II are

not clear. But it is this which is likely to hold a rich store of psychosexual and educational implications.

Affectional Correlates of Femininity.

Fathers and mothers: The only consistent directional trend which occurs for both fathers and mothers in the two-child family is a diminution in size of the correlation between negative incoming feelings and femininity. At Level I, coefficients are positive, but by Level III inverse relations for fathers ($p = <.02$) and very small positive coefficients for mothers occur. Negative incoming feelings for mothers, positively correlated with feminine scores at Level I ($p = <.05$), are inversely related by Level III. The same feelings from fathers show the same trend but are significantly related (inversely) by Level III ($p = <.02$).

In the father-absent family, negative feelings from mothers increase rather than decrease with age as feminine correlates change from inverse to positive. This increase in inverse correlation recurs in the only child family and indicates that distinct differences in affectional correlates of femininity vary according to family type. This is the only consistent developmental trend evident between affectional bonds with mothers in the father-absent family and femininity. There are, however, two additional regularities for father-based affections. Positive incoming feelings decrease until, by Level III, they are inversely related; negative outgoing feelings for fathers, inversely linked at Level I, become increasingly large and positive from Level II onwards.

The only consistent affectional correlates with femininity for only sons are incoming feelings (fathers positive and negative, mothers negative only) and negative outgoing (mothers). Positive incoming feelings for fathers decrease to a negligible size at Level III and negative incoming feelings increase from high negative at Level I to high positive at Level III ($p = <.02$), with the change being particularly rapid between Levels II and III.

If the four classes of affectional bonds with parents are examined, the most noticeable features observed are: (1) outgoing feelings are not significant for either parent; (2) incoming feelings, diminishing very little in size as femininity correlates in two-child families, do not appear to be at all consistent in either father-absent or only-child types of family; (3) negative outgoing feelings, which are inversely related at Level I in father-absent and one-child families for fathers and mothers respectively, provide less-distinct negative relations at Level III; (4) negative incoming feelings, which diminish in importance for parents in two-child families, increase in strength, in the two other family structures for mothers only.

Siblings: When affectional relationships with siblings are examined for developmental consistencies as feminine correlates, two quite striking similarities emerge: (a) similarities between MM_1 and MM_2 in the developmental direction of the correlations of positive feelings and femininity; (b) decreases in consistencies of outgoing and incoming feelings for M_1M and M_1F , the former showing a consistent decrease in positive outgoing and positive incoming feelings, the latter a consistent decrease in negative outgoing and negative incoming feelings. Thus, the developmental pattern for femininity correlates and sibling affection is clearer than for those of parents, discussed above, or for masculinity, discussed earlier. Warm feelings to and from older brothers (MM_2) correlate consistently but decreasingly in inverse relation; hostile feelings - to and from - are inconsistent. Warm feelings to and from younger brothers decrease in importance across the levels (Level I, $p < .05$). Negative feelings are not consistent in direction.

There is some similarity, too, between MM_2 and M_1F correlates. Warm outgoing feelings for MM_2 change from negative at Level I to positive at Level III. Positive incoming feelings have negligible correlative strength at Level III, whereas, at Level I they were

significant ($p < .10$); correlations between negative feelings and femininity are not directionally consistent. For M₁F, only negative feelings to and from sisters correlate in consistent, developmental sequence; negative feelings become decreasingly important (Level III, $p < .10$), but negative incoming feelings, initially inversely related, are negligible as correlatives by Level III.

Conclusion

Differences in directional trends for affectional sex-role correlates indicate that the characteristics, masculinity and femininity, are not simply bipolar opposites or that, for boys at least, they are merely clusters of sex-appropriate, sex-inappropriate behaviours at extreme ends of a behavioural continuum. In the present analysis, the main focus upon familial correlates has produced clearer findings on the feminine scale than on the masculine. This might be explained by suggesting that boys, attuned to male behaviour, respond to the masculine scale with socially-acceptable responses. The feminine scale, on the other hand, may disconcert them. Thus the responses they give may be more natural and less affected by the conventionally-set responses of the masculine scale.

Dissimilarity between the complete (i.e. two-child) and 'incomplete' (father-absent and one-child) family structures is the clearest difference which emerges from this analysis of developmental consistency in sex-role correlates. If affectional-femininity correlates are examined, for example, the dissimilarities show very clearly. The boy with a sibling and both parents displays a greater degree of developmental consistency than the father-absent and only boys. Of the possible directional correlations, 54 percent are consistent in the two-child family, the other two groups show poorer (43 percent) consistency. Furthermore, if only warm feelings are considered, then the disparity is even greater: 60 percent of possible correlates are consistent for two-child families and, in the other two, only 25 percent. It may be necessary for developmental consistency,

therefore, to have a network of interactions available - interactions which are of the horizontal and the vertical kind. These, it is postulated, reinforce and consolidate the cultural ascription of the appropriate gender role. Undoubtedly, this needs to be pursued at greater length: the relevance of completeness of family as a basic component of healthy sex-role development is an enticing prospect for subsequent research.

CHAPTER XI

CONCLUDING OBSERVATIONS

The rationale for this research was predicated upon two major factors: the inconsistencies and discontinuities in sex-role research over the past number of years and the lack of information concerning sex-role development in the New Zealand setting. In the first place, it must be noted that at the time this investigation was begun, there was no study which provided an analysis of sex-role across a number of different age-levels. Research on the acquisition of sex-role provided a patchwork of findings, discontinuous at some points, conflicting at others. In the second place, it has been consistently contended throughout New Zealand's relatively short history, that this country labours under an oppressive yoke of masculinism and that masculine values and pursuits are accorded higher esteem than are those which are feminine. Yet, the only writing which is currently available concerning such assertions is either data-free or impressionistic. For these reasons the study was focussed upon the development of selected sex-role phenomena by directing attention to boys at three different age-levels from three different types of family. In order that the enquiry might be systematically pursued the following major assumptions were made: (1) that changes in sex-role phenomena should be discernible in boys at different stages of development; (2) that relationships between sex-role phenomena and selected variables would be of different strengths at different stages of development; (3) that the child's own view of his family relationships and sex-based preferences would provide a new perspective in sex-role research.

To facilitate this work, some novel departures were incorporated in the study. Tests were chosen which would be used at three levels; family relationships substituted for parent relationships; family composition was considered; and the 'bipolar' notion of masculinity-femininity was abandoned in favour of separate assessments of

masculinity, femininity and sex-role preference.

Analyses carried out in this research were concerned with the relationships between the sex-role phenomena, masculinity, femininity and sex-role preference and: (i) affectional bonds with parents; (ii) affectional bonds with siblings; (iii) other structural variables (e.g. like-sex/opposite-sex, first-born/second-born); (iv) intelligence; (v) socioeconomic level. Hypotheses for each of these sets of variables were specified and, as each of these was reported upon in the previous chapter, no further explication will be given here. In the discussion which follows, attention is directed to salient findings. Comment is made upon them under the following sections:

- (a) parental correlates of sex-role development in the two-child family, the father-absent family and the male-singleton family,
- (b) birth-order and sex-composition in the two-child family,
- (c) intelligence,
- (d) socioeconomic status,
- (e) sibling correlates of sex-role development in the two-child family.

Parental Correlates of Sex-role Development in the Two-child Family

In this first section, attention was directed to the pattern of association between parental bonds and sex-role development. Comparisons were made between mother- and father-correlates for the two-child family, the father-absent family and the male-singleton family.

(1) Mother-son correlates of sex-role development. That warm relationships between mothers and sons were important correlates of masculinity at Levels I and II was evidenced particularly by the inverse relations between negative feelings and masculinity. At Level II especially, the significant findings for both positive incoming and positive outgoing feelings was noteworthy.

The most striking finding, however, was that there was no

significant association between affectional bonds with mothers and masculinity by Level III. The conclusion which was drawn was that by age 11 or 12, the boy was sufficiently 'distanced' from his mother that interaction with her was of little consequence in facilitating the development of those forms of masculinity which were characterised by play and games.

The association between sons' affectional bonds with mothers and femininity was quite clear. At Levels I and II some relatively high correlations between negative incoming feelings and femininity provided an unexpected corroboration of the 'identification with the aggressor' theory developed by Anna Freud (1946) and discussed more recently by Bandura and Walters (1963). A surprising feature in this present research was that the sex-role identification was with the cross-sex aggressor, i.e. the mother. Earlier research had shown that identification with an aggressive male model led to high aggression in boys (Levin and Sears, 1956; Bandura, Ross and Ross, 1961). In the present study, however, it was the recipient of high negative feelings from the mother who was more feminine up to the age of 7-8. Thus the mother who hit, teased, scolded, and generally related negatively was the mother whose son displayed high femininity at Levels I and II.

At Level II and Level III, the most significant association recorded was between positive feelings and femininity. Thus Level II boys exhibited a degree of ambivalence not evident in those at Levels I and III. For these boys (i.e. Level II), high correlations appeared between both positive outgoing and negative incoming feelings and femininity. If causal relationships could be inferred, it would seem that the recurrent component of femininity characteristic of so many boys at this level was sustained mainly by a complex admixture of incoming and outgoing feelings between mothers and their sons.

Sex-role preference (ITSo) scores produced a different pattern. At Level II the associations with positive feelings were stronger than at Level I where no significant correlations occurred. This finding lends support to the finding (above) that positive relationships with

mothers are important correlates of sex-appropriate behaviour, especially at age 7-8; it is the positive outgoing feelings, moreover, which are particularly important.

(ii) Father-son correlates of sex-role development. Earlier studies (P. Sears, 1953; Payne and Mussen, 1956; Mussen, 1961) have given support to the view that boys with strong masculine interests perceive their fathers as positive and rewarding. On the basis of these researches, it was hypothesised that father-affectual correlates of sex-role measures would not only be important at particular ages, but that these would increase in salience over time. The results for the father-son analyses were, however, disappointing. Father-affectual bonds did not correlate systematically with the sex-role measures. There were no significant associations at Level I; at Level II however, the significant correlation between positive incoming feelings and masculinity did lend support to the view that paternal warmth is an important factor in the development of masculine sex-typing (Bronson, 1959; Mussen and Distler, 1959). Furthermore, the significant inverse correlations between negative feelings - both incoming and outgoing - and sex-role preference at Level I lends support to the view that negative feelings between fathers and sons may vitiate those elements of sex-role development which are tapped by the ITSc.

One further interesting feature which emerged was that the total affectual relationships with fathers (a) correlated with ITSc scores significantly at both Levels; and (b) were considerably more substantial than were the correlations for mothers.

In the present analyses although correlations were disappointing, several distinct findings emerged. First, the greater relevance of father-son relationships for masculinity and male sex-role preference at Level II than at either Level I or Level III. Support can therefore be claimed for the view (Bandura and Walters, 1963) that age differences may provide varying associations between sex-role measures and the child's perception of the relationships which exist between himself

and his parents. Second, the finding that warm relationships between fathers and sons were more influential correlates of sex-role development than were negative relationships. Third, it would seem that the abandonment of the unilinear conception of masculinity-femininity, and the development of diverse measures to 'map' various dimensions of psychosexuality offer two promising strategies for future research.

The Father-absent Family.

In previous research, father-absence has referred to a number of conditions such as: (a) where the marital tie is brittle and a high incidence of desertion occurs (Clausen and Williams, 1963); (b) where long-term absences exist (Tiller, 1957), (Lynn and Sawrey, 1959); (c) where military service denies the young child contact with his father (Stolz, 1943).¹ An attempt was made to eliminate ambiguity in this present study, by specifying the conditions within which boys would be designated father-absent boys. It will be recalled that the criterion adopted to operationalize the concept of father-absence was continuous absence in which the child was being reared by the mother without the day-to-day presence of the father.

Correlations between parent-child affectional ties and sex-role scores were generally low. There was only one significant correlation for fathers and three for mothers. By comparison with the child in the intact, two-child family - where ten significant correlations for fathers and fifteen for mothers resulted - parent-affection correlations with sex-role measures were minimal. Not only did the absent father's role in sex-role development seem very limited but the mother appeared to be no substitute for him; the only significant correlations between affectional feelings for mothers and sex-role measures were of an inverse order.

1. Lack of distinction in the condition 'absence' occurs also in the literature of maternal deprivation (Spitz, 1946; Bowlby, 1952). In his discussion of parent-child separation, Andry (1962) found it necessary to make distinctions between (i) physical separation; (ii) psychological separation resulting from physical separation; (iii) psychological separation resulting from other than physical causes.

Inspection of mean sex-role preference scores for all family categories revealed (Table XI.1) that the mean score for father-absent boys was lower than for any others at Level II and was exceeded by all except the mean for singletons at Level I. High standard deviations at both levels indicated a relatively wider dispersion of scores across the two levels for the father-absent group than for any other. To instance this: the standard deviation at Level I (24.67) was exceeded only by singletons and at Level II (25.82) it was greater than any other.

Table XI.1.

Mean IT Scale Scores by Level and Family Composition

	<u>Mean</u>	<u>SD</u>
Singletons (M)		
Level I (n = 4)	54.0	33.78
Level II (n = 6)	81.16	3.64
Father-absent (FA)		
Level I (n = 8)	57.75	24.67
Level II (n = 20)	67.0	25.82
With Older Brother (M ₂)		
Level I (n = 5)	78.0	23.88
Level II (n = 10)	79.80	8.36
With Older Sister (F ₂)		
Level I (n = 12)	61.25	17.03
Level II (n = 7)	75.14	8.86
With Younger Brother (M ₁ M)		
Level I (n = 12)	69.33	10.59
Level II (n = 10)	82.20	3.00
With Younger Sister (M ₁ F)		
Level I (n = 9)	63.55	13.72
Level II (n = 14)	81.90	5.03

Furthermore, when the mean score of the father-absent group was compared with all others from intact families on the masculinity and femininity scales, higher standard deviations were registered at Levels I and III on both scales, which suggested that on these scales father-absent boys were more conflicted in their behaviour than boys from intact families. (see Table XI.2.)

Table XI.2.

Mean Scores on Masculinity (M) and Femininity (F) Scales.
 Father-absent Boys Compared with All Others by Level.

		<u>Father-absent Boys</u>		<u>All Other Boys</u>	
		n's: I= 8; II = 20; III = 30		n's: I= 42; II = 48; III = 96.	
<u>Level</u>		<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
I	M	4.25	3.34	3.80	2.79
	F	9.62	5.05	9.00	4.00
II	M	5.50	4.27	7.18	4.92
	F	10.95	4.62	10.47	4.71
III	M	12.66	6.39	13.41	5.29
	F	6.13	3.54	5.72	3.50

There are several features which need to be commented upon in the above table. Despite the few significant correlations which were yielded from the affectional correlates of sex-role development, some useful information resulted. A cautionary note can now be sounded for future work with father-absent children. Although effort was made to define father-absence in such a way that the concept was operationalized, FRT responses showed that dichotomization into physical absence/physical presence categories oversimplified the complexity of relationships involved. As a consequence, a number of discrete conditions of father-absence were embraced within this one category which were not evident initially. Neither, it is argued, have these been sufficiently taken into account in earlier work. The father's degree of access to the child, recency of departure by either death or domiciliary change, the extent to which the father is absent-but-approved or absent-and-disapproved by the mother were some of the variations which emerged. Yet, none of these factors have been alluded to in previously-cited research. Thus, a range of conditions encompassed by the category

'father-absence' may contribute to the limited findings which were produced within the affectional correlates analyses and also to the large standard deviations which have already been remarked upon.

Previous works have introduced the intriguing notion of compensatory masculinity to explain the heightened masculinity which results from situations in which there appears to be an insufficient foundation for masculine identification. Compensation, in this context, is a mechanism of adjustment through which the child who lacks an adequate male model ameliorates his deficiency through exaggerated masculinity. Lynn and Sawrey (1959) found that boys in father-absent families identified more closely with the feminine role, had difficulty in relating to peers, were more mother-dependent and more conflicted over sex-role identification.¹ Rosenberg and Sutton-Smith (1966) found that boys in the all-female family 'showed heightened masculinity (presumably conflict-induced)' on the Cough Fe Scale. The present study supports both propositions. Conflict in sex-role identification for father-absent boys was shown by the much wider range of scores which they registered on both masculinity and femininity; some showed heightened masculinity, others were highly feminine; there was little homogeneity in the responses which were recorded.

In spite of the qualifications which may be drawn in attempting to find sure reasons for the findings, one clear factor emerged from the present research: the father-absent boy was in a disadvantageous position at the ages of 5 and 6 (Level I) and 11 and 12 (Level III) with regard to his sex-role development. A possible explanation lies in a blurred perception of sex-appropriate or sex-inappropriate behaviour

1. In a more recent account, Dahlstrom (1967) indicates that the sailors whose children were studied were all of officer rank, that the mothers were more isolated, relied more on the children for company and were more protective ("over-protective" in Dahlstrom's terms) than were control-group mothers. The compensatory masculinity of which Lynn and Sawrey write may thus have been a function, not of father-absence simply, but of absence plus social status, or absence plus the various 'contaminating' child-rearing practices employed by the mother.

due to the unavailability of the father as a role-model. But whatever the explanation eventually adduced, it is clear that care needs to be taken in the future to enunciate the boundaries and conditions which will be used to delineate the category 'father-absence'.

The Singleton.

Little research has been carried out on the sex-role development of the only child. Rosenberg and Sutton-Smith (1964), in one study, have reported that the singleton experiences no disadvantage in his masculine development. The present research serves to confirm this; for one of the most striking features which resulted was the apparent clarity with which the only child comes to perceive his sex-role. His mean score for sex-role preference, however, was not clearly superior until Level II. On the femininity scale, the singleton was the least feminine of all observed ordinal positions through all levels; on the masculinity scale he was the most masculine at Levels I and III and second to M_2 boys at Level II. Mean scores, as shown in Table XI.3, make this clearer.

Table XI.3.
Mean Scores on Sex-role Measures by Level
and Ordinal Position

Ordinal Position	n -- Level			IT Scale Level		Masculinity Level			Femininity Level		
	I	II	III	I	II	I	II	III	I	II	III
M_1	4	6	16	54.0	81.16	5.78	8.33	14.06	3.50	8.16	4.56
MM_2	5	11	26	78.0	72.90	5.20	8.81	12.80	8.60	10.60	6.23
FM_2	12	7	20	61.25	76.42	4.41	6.42	12.55	9.5	10.71	5.45
M_1M	12	10	8	69.33	82.20	2.25	5.70	13.12	9.41	12.10	4.75
M_1F	9	14	26	63.55	81.92	3.44	6.85	14.34	10.44	10.07	6.46
FA	8	20	30	56.62	67.00	4.25	5.50	12.66	9.62	10.95	6.13

Significant correlations between parent-affectual antecedents and the response variables were few in number. Two particular points

became clear. First, the importance of mother-affections as correlates of masculinity and sex-role preference decreased from Level I to Level III. Second, correlations between father-affections and masculinity and femininity increased or decreased systematically from Level I to Level III for only four of the eight conditions. These two findings suggested an increasing importance over time of paternal relationships and decreasing importance of maternal relationships for the singleton's sex-role identification.

It was pointed out in the review of the literature (Chapter VI) that the singleton's sex-role development has not been extensively examined and that only two studies (Pauls and Smith, 1956; Rosenberg and Sutton-Smith, 1964) have included only children within their subsamples. This present research corroborates findings from both. Here, the only boys were not at any disadvantage on account of the absence of siblings. The tenuous nature of the findings on parental correlates of sex-role development provided little evidence to confirm the affectional-linkage hypothesis, but examination of the mean scores (Table XI.3 above) suggested that these singleton boys were by no means unmasculine. They are the least feminine of all ordinal positions at every level, the most masculine at Level I and are exceeded only by the MM_2 's and M_1F 's at Levels II and III respectively. For the ITSc, however, a different pattern appeared; the singleton mean was the lowest at Level I and third at Level II. This adds further evidence in support of the view that the ITSc and the Play and Games List would appraise discrete aspects of sex-role orientation. From the findings of this present study, it seems that masculinity in the singleton develops not from affectional linkages with the parents, but from other, still unrevealed sources.

Both the earlier researches cited reported that the only child has a clearer appreciation of his sex-role than the child with a sibling or siblings. The reasons which underlie his being more attuned to sex-appropriate behaviour deserve thought, for the results which

are available 'fit none of the role-learning propositions' (Brim, 1958). Closeness to parents and continuity of contact with them both may sharpen the singleton's perception of sex-differences. This possibility conforms with Kohlberg's (1966) findings on cognitive maturity and sex-role attitudes. Alternatively the lack of other models - for example, siblings - may cause him to 'learn the stereotype' (Lynn, 1961) rather than to learn his father. Nor may the possibility that he identifies with 'bits of his beloved parent' (Mowrer, 1950) be entirely discounted.

At present, too little is known of the manner in which the singleton develops an appreciation of the full range of appropriate and inappropriate psychosexual behaviours. It would seem, nonetheless, that the singleton has to work at the acquisition of sex-appropriate behaviour. He begins poorly. At 5-6, his preferences were indubitably more feminine than the preferences of other boys. Presumably up to this time, he interacted more with his cross-sex parent and learned the feminine role more thoroughly than the male role. As a consequence, he may take longer to break the intense (oedipal) bonds built up in the years preceding school. But by 7-8 the singleton group was clearly masculine; maternal bonds had been irrevocably severed and replaced by paternal linkages which increased in intensity from the age of 7 onwards.

Birth Order and Sex Composition

As the review of the literature has shown, a great deal of research energy has been expended in the investigation of the effects of birth order and sex-composition of the family over a wide range of personality variables. In the present research, some attention was given to these phenomena, not at any one age as in most studies cited, but at three age-levels. The results may most conveniently be discussed under two separate headings:

Birth Order

Birth order comparisons between first-born and second-born boys in the two-child families only were made. In the sample studied, being a second-born boy incurred some advantage in terms of sex-role development. For high masculinity (HM) and masculinity, the presence of an older sibling facilitated sex-appropriate responses at Levels I and II; the differences between the two groups, however, reduced appreciably on both measures by Level III.

Both first-borns and second-borns registered higher mean femininity scores at Level II than at Level I. This puzzling feature will be discussed at more length in a concluding section of the report.

The results for this section of the study were insubstantial, indicating that dichotomization of the two-child family sub-group on a first-born/second-born basis may have obscured important status differences. Previous research, too, which has centred in the first-born/second-born comparison without any regard for sex and sibling has yielded inconclusive and conflicting results. That this distinction, ignoring as it does the subtleties of interaction which the FRT has revealed, produced no systematic differences was not surprising. Ordinal position holds much more promise than does birth-order as an independent variable in the study of sex-role development.

Sex Composition.

It has been argued within this present study that 'structural' categories which ignore the intricacies of intrafamilial dynamics can present little more than a blurred image of reality. One major purpose in this section of the study was to test the extent to which this contention was valid.

The main conclusion from this section of the analysis was that differences between like-sex and opposite-sex sibling constellations were insubstantial. Both like-sex and opposite-sex groups recorded a steady increase in mean scores on the masculine scale, both showed an increase on the feminine scale at Level II and decreased considerably

in mean feminine scores by Level III. On the ITSc mean scores increased for like-sex and opposite-sex groups from Level I to Level II and at Level I on this measure the only statistically significant difference occurred; boys with brothers were more masculine than boys with sisters.

Previous studies (Koch, 1955, 1956; Eris, 1958; Rosenberg and Sutton-Smith, 1964) have thrown some light on the effects of sibling structure on sex-role identification. All three have reported that the presence of opposite-sex siblings decreased the child's preference for his own sex. In this study, further support is given to this, but only at Level I where boys with opposite-sex siblings were shown to be more feminine than boys with same-sex siblings on sex-role preference scores. The conclusion which was drawn from this result was that the boy in the two-boy family's preference for masculinity is age-specific.

The tenuousness of the like-sex/opposite-sex findings was not altogether unexpected. It will be recalled that in Chapter V of the study the 'accident of family structure' was held to be influential in affecting the development of personality variables. The simplicity of the like-sex/opposite-sex dichotomy, it was argued, neglects more than it reveals within the intrafamilial setting. Thus, in the present case, the decision to refine the analyses in order that the four sibling structures in the two-child family be differentiated has been vindicated. Discussion of these four sibling-structures appears in a later section of this concluding chapter.

Intelligence

There were three reasons which necessitated that some consideration be given to intelligence as an independent variable in this study. It was felt: (a) that previous research findings were meagre and inconsistent (see Chapter VI); (b) that social-learning and cultural transmission views¹ have not given sufficient attention

1. Kohlberg's (1967) view is that cultural-transmission probably presents an adequate picture of sex-typed preferences in young children but that it is inadequate at later ages when less-stereotyped sex-role phenomena are involved.

to intellectual factors in sex-role development; (c) that this research might yield an overview of the relationships between intellectual development and sex-role development at three predetermined testing levels.¹ This latter point shows some similarity to the cognitive-developmental theory (Kohlberg, 1966; Kohlberg and Zigler, 1967). In these two accounts it is held that sex-role learning follows a regular course of development and is determined, not by maturational phenomena or chronological age, but by cognitive organization in which sex-roles are related to body concepts and 'to basic social functions in relatively universal ways' (Kohlberg, 1966).

Some criticism has recently been levelled at cognitive-developmental theory on the grounds that it presents a one-sided view of sex-role development. Biller (1967) points out that, in this theory, it is assumed that 'knowledge of sex roles is isomorphic with sex-role development'. No such claim could be made against the present study, for it was not assumed that cognitive factors exert any overarching influence in sex-role development. The intention, simply stated, was to determine whether or not the one cognitive factor - i.e. intelligence - was a correlative of the three response variables, masculinity, femininity and sex-role preference at any or all of the predetermined age-levels.

Several features emerged which deserve mention. First, there were no significant correlations between intelligence and femininity. The salient finding on the relationships between intelligence and the sex-role measures was that there were significant correlations between intelligence and masculinity at Levels I and II and at Level II between intelligence and sex-role preference. This finding supported the cognitive-developmental view that intelligence is an important factor in the development of sex-role up to the age of 7-8. Furthermore, the results indicated that there were no significant differences in masculinity or sex-role preference scores between the high and low

1. Any novelty in this conceptualization was pre-empted by the publication of two papers (Kohlberg, 1966), (Kohlberg and Zigler, 1967) following the gathering of data for this study.

intelligence groups by Level III. There was, however, a greater percentage of low intelligence boys who were HIM at this point.

This raises an entirely new question - the age specificity of sex-role identification and of the sex-role measures used as evaluative devices. It may well be that the kind of masculinity and sex-role preferences which are measured through play and games and ITSo items have little relevance as indicators of sex-appropriate behaviour for 11- and 12-year-old boys. The activities which are attractive to children, it is commonly acknowledged, are in the main unattractive to adults. By the same token, there seems little reason to believe that the activities which carry sex-appropriate connotations for children are equally revealing of sex-role characteristics for preadolescents or early adolescents. This notion of the developmental specificity of masculinity and femininity demands further consideration in the future.

In other sections of this report, the nonlinear character of mean sex-role scores from Level I to Level III has been discussed. Reversals of this kind are not peculiar to this present research; they were found to occur in adolescence (Terman and Miles, 1936) and, in both bright and average children between the ages of 4 and 8. The second feature which derived from data drawn from intelligence and sex-role measures in this present work yielded the unanticipated finding that discontinuities in sex-role development appeared to be influenced by mental rather than by chronological age. The less-intelligent boys produced inferior scores to the intelligent and apparently took longer to organize the masculine sex-role cues which had been available to them. This concurs with the view that 'The bright children higher on male preference at 4, moved toward greater female preference at age 7, whereas the average children moved toward a greater male preference during this period' (Kohlberg and Zigler, 1967). Whilst this in itself does not constitute an explanation of discontinuity, it is necessary to add that the correlations between intelligence and sex-role preference in the present study lent further

support to this finding.

A third feature, already mentioned in a somewhat different context, was that the more intelligent boys were not in a more favourable position by Level III; they had attained an adequate sex-role orientation earlier than the less intelligent. Cognitive transformation or cognitive reorganization provide acceptable explanations for early differences between the groups high and low on intelligence. Without the findings revealed by the use of intelligence as an independent variable the developmental discontinuities which have occurred in this investigation would have presented a perplexing and unexplained problem.

Socioeconomic Status

Investigation of the extent of association between socioeconomic status and sex-role development was predicated upon two assumptions: (i) that the relationship between the two phenomena would be age-specific; (ii) that boys from lower socioeconomic levels would exhibit sex-appropriate behaviour to a greater degree than boys from higher socioeconomic levels. The findings pertinent to each assumption will be discussed in turn:

(i) There was a distinct reduction from Level I to Level III: (a) in the correlations between masculinity and femininity scales and T-scaled occupational ratings; (b) in t-values for the HI/Lo dichotomization and masculinity and femininity; (c) in percentage differences between the groups located in H₁F/H₁M zones of the FM Diametric.

The diminution in the significance and size of correlations over the three age levels supported the first assumption. What does not emerge, however, is the reason behind the difference between the two groups in the early years. There are several factors which may account for this: (a) that the lower-class father had greater 'visibility' as a sex-role model; (b) that lower-class occupations, more tangible and concrete to the child, were held in greater esteem;

(c) that lower-class occupations are unconsciously presented in the young child's socializing experiences as masculinizing; (d) that the tangibility of lower-class occupations was more appropriate to the pre-operational level of intellectual functioning in the younger boys. There may be other possibilities. Whether or not other, more obscure or interrelated factors are involved, is not at all clear. But pursuit of the reasons underlying the differences revealed here may provide a promising route for future study. The most important finding which emerged from this section of the study was that socioeconomic status, as judged on the basis of parental occupation, revealed no relationship with sex-role measures beyond Level I.

(ii) At Level I the results lent some support to the second assumption. Correlations between socioeconomic status and sex-role preference and socioeconomic status and masculinity indicated that boys from lower socioeconomic strata were more masculine. Contrary to expectation, however, there were higher percentages of the high socioeconomic group HII at Levels I and II. One finding here which stands in contrast to the other two-way comparisons (i.e. 11M-sex - opposite-sex, first-born - second-born, high intelligence - low intelligence) which have been discussed earlier, was that the masculinity measure was the more efficient discriminator. Where, in the other comparisons differentiation was noted to be 'stronger' on the femininity-scale, here the masculine scale proved to be more effective.

A developmental reversal occurred at Level II where, irrespective of placement in high or low socioeconomic groups, boys showed greater femininity. Higher percentages of both groups were in the HIF zone of the FM Diametric and mean scores on the femininity scale were also greater than at Level I. This tendency, which has been noted in other sections too, therefore cannot be attributed to differences in socioeconomic status.

Finally, the non-significant findings at Level III on all analyses of the data indicated that socioeconomic status was not an important concomitant in sex-role development by the age of 11-12.

Sibling Correlates of Sex-role Development

The main burden carried by the hypotheses relating to sibling relationships (i.e. horizontal relationships) was a testing of the extent to which sibling affections are influential in sex-role development. The four male ordinal positions in two-child families were considered. Four of the twelve sub-hypotheses which had been formulated were substantiated, and a further three received partial support. Results on the masculinity scale and for sex-role preference were equivocal; those on the femininity scale provided the more conclusive findings. A brief summary of the findings follows:

Mean scores on the three response variables, masculinity, femininity and sex-role preference, showed differences by level and family type. For all family types, with the exception of the M_1P type, feminine scores increased at Level II. For both sex-role preference and mean masculinity scores increased from Level I to Level III. Boys with younger sisters (M_1P) showed the clearest change from Level I to Level III; they were the most non-masculine at Level I but by Level III were ranked first on masculinity, second on male sex-role preference and second on femininity. The extent of shifts in ranking (Chapter X, Table 19) illustrates two points: (a) that masculinity and femininity are not opposite poles on a continuum (b) that level-by-level shifts in rank-order on these measures are contingent upon ordinal position rather than upon sex-composition (i.e. like-sex or opposite-sex), family structure or birth order.

(i) Masculinity. Tenuous support was given to the hypotheses which posited (i) that affectional links with younger brothers (M_1M 's) would yield more important correlations than those with younger sisters (M_1F 's); (ii) that affectional links with younger brothers (M_1M 's) would yield greater correlations than those with older brothers (MM_2 's). One noteworthy finding was that by Level III, three of the four correlations for positive incoming and outgoing feelings with brothers were significant. This finding suggests that

brother affections at age 11-12 are more important correlates of masculine development (a) for boys with older brothers than younger brothers and (b) for boys with older brothers than with older sisters.

At this juncture, relevant findings from previous research can briefly be recapitulated. It has been shown (Payne and Mussen, 1956; Leiderman, 1957; Mussen and Distler, 1959) that paternal warmth and rewarding behaviour facilitate sex-role identification. The findings from the present study, though offering no causal explanations, indicated that significant relationships between positive feelings with male siblings and masculinity increased in importance from Level I to Level III; no discontinuities occurred at Level II to confound the increases in correlations.

(ii) Femininity. Differences between sibling constellations on the femininity scale were more supportive of the hypotheses. Contact with younger brothers was a more important correlate for femininity than contact with older brothers; for the M₁M's especially, the correlations between positive feelings and femininity diminished appreciably from Level I to Level III. Relationships with younger sisters too, were more salient correlates of femininity than relationships with older sisters; this was particularly the case with positive affectional relationships between respondents and female siblings. For older siblings, the correlations were higher for older sisters than for older brothers.

Findings from the hypotheses allowed a rank-ordering of the affectional bonds with siblings for femininity: younger sisters were the most influential, second were older sisters, third were younger brothers, last were older brothers. Differences in ordinal position are therefore indicated as important correlates of femininity in sex-role development in boys.

(iii) Sex-role preference. Correlations between affectional relationships and sex-role preference presented no clear pattern. One hypothesis, designed to test the extent to which the presence of

younger brothers would facilitate male preference more than older brothers received very slender support. Correlations between negative bonds and sex-role preference indicated that brothers have some place in the development of a preference for masculinity; at Level I both sets of negative bonds for older brothers correlated highly and inversely, as was anticipated. On the one hand, affectional bonds with older sisters correlated significantly - inversely on positive outgoing feelings, positively on negative outgoing feelings at Level I; younger sister relationships, on the other hand, had no effect on sex-role preference. Thus, though no such consistent pattern emerged through the levels for sex-role preference as it did for femininity, a number of age-specific sibling effects were revealed.

Developmental Discontinuity: A Speculation

One of the most puzzling features which arose from the present research was the feminine orientation of so many boys at Level II. The possibility that this might be an artifact of the particular tests used in this study is discounted, on the grounds that two other investigations (Terman and Miles, 1936; Kohlberg and Zigler, 1967) have also found reversals occurring in male sex-role development. Kohlberg and Zigler (1967) presumed that dependency was the root cause of the feminine orientation in boys which was revealed in their study. In their study it will be recalled that the reversal occurred in bright boys between 5 and 7 and in average boys between 7 and 10. One possible reason given for the reversals in both groups is that because dependency is a component of sexual love or affection, it is less objectionably viewed in cross-sex than in same-sex relationships. The differences are explained simply on intellectual grounds - intelligent boys, in this interpretation, are more sensitive to the unmasculine qualities of dependency at age 7: '... the average boys still see dependency toward an adult male (*italics mine*) as supporting or defining their own masculine identity, while the bright boys may

have come to see such dependency as less masculine or less permitted than dependency upon an adult female (italics mine).' (ibid. p. 155).

Persuasive though the above explanation may be, it does not so easily fit the New Zealand situation. The New Zealand 7-8-year-old has been 'detached' from his mother since the age of 5 - i.e. one year longer than his American counterpart. Overt expression of mother-dependency is unusual in the 7-8-year-old boy who has had two or three years at school. Covertly, however, dependency drives may still be sufficiently compelling to cause him to seek satisfaction of his dependency needs within the school. And, as has already been noted, in the majority of cases, it is a woman who teaches boys of this age. Thus, an alternative explanation to that of Kohlberg and Zigler, more appropriate to the New Zealand situation, is given below.

At the age of 7 or 8, the boy may perceive nurturant qualities in his teacher (female) similar to those possessed by his mother. But, in order to gain the teacher's attention and approval, he must satisfy the conventional demands imposed by the school. Tidiness, neatness, docility, conformity, quietness, and the like are qualities which are approved and rewarded in the school situation. Yet, they stand in antithesis to the characteristics he has been encouraged to develop and display in his earlier school years. Strength, courage, assertion, aggression and physical activity - qualities customarily associated with masculinity - are rewarded and reinforced in preschool years. Yet, they are either grudgingly accepted or disapproved by a preponderance of classroom teachers. Compelled by the need for approval, the boy must perceive himself as being masculine-oriented in extra-classroom situations; parents, peers and siblings reinforce his maleness. But, in order to gain the approval of his teacher, he may need to underplay some of his masculine characteristics, abandon others and learn or assume behaviours which are less disruptive in the classroom.

The New Zealand school and the curriculum which is taught in it are presumed to be sex-neutral. As far as can be ascertained, consideration has never been given to testing the assumption of neutrality.

Whilst it is agreed that no conscious distinctions are made between the sexes in the early school years, the possibility that teachers may unconsciously make distinctions cannot be overlooked. Research elsewhere which adds substance to this speculation can be cited. Sears and Feldman (1966)¹ have written that teachers welcome affiliative, dependent behaviour in average boys and that bright boys are liked if they are friendly and self-sufficient. For girls, on the other hand, no differences between what teachers value in bright and average girls were reported. In another study, reported in the same article, Spaulding (1963)² found that in criticising boys, teachers more often used harsh and angry tones, whereas, when criticising girls, normal tones were more often used.

Two points can thus be made from these two studies and from the speculation raised concerning reversals in sex-role development. The first is that too little is known regarding specific effects of teacher behaviours; the second that nothing is known at all on the effects of the teacher or the school in sex-role development or in the transmission of sex-role values. All this is virtually unexplored territory.

In an earlier chapter (Chapter IV) it was shown that boys experience considerably more learning and behavioural disorders than girls. Though the Department of Education has not yet directed any attention to these differences which are patently apparent, it is clear that differences of such magnitude suggest the urgent need for appraisal.

This study did not purport to provide any causal analyses. It was, it must be stressed, limited to boys drawn from a restricted range of familial categories. These notwithstanding, some tentative

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1. Sears, P.S. and Feldman, D.H. (1966): Teacher interactions with boys and girls. Nat. Elem. Princ. XLVI, 2, pp. 30-35 (not included in bibliography).
 2. Spaulding, R.L. (1963): Achievement, Creativity and Self-Concept Correlates of Teacher-Pupil Transactions in Elementary Schools. Cooperative Research Project No. 1352 U.S. Dept. of Health, Education and Welfare. Cited in Sears, P.S. and Feldman, D.H. (above).

and interpretative propositions relating to reversals in sex-role development can be drawn from the present study.

It is tempting to conclude that the preponderance of ~~women~~ teachers, the reward systems they invoke, the demands they impose as well as the intrinsic qualities of the classroom itself¹ may create conflict in sex-role orientation for the 7-8-year-old boy. Furthermore, it may be speculated that here may lie a hidden factor behind the grossly-disproportionate numbers of boys requiring remedial assistance in our schools.

Conclusion

The major purpose of this investigation was to examine the course of sex-role development in boys of primary school age. At the time when the study was begun, no previous research into sex-role development in children had used the same instruments through a number of age-levels; none of the previous work had considered the extent to which familial affections, across the full configuration of the family may covary with sex-role development. Variables other than those concerned with family relationships were included; these, too, have been considered in turn.

A number of hypotheses were set up to provide a basis for enquiry into the development of sex-role identification. Of the forty-seven hypotheses formulated, thirty percent were confirmed without reservation; of the remainder a further nine (fourteen percent) were partially confirmed. For an exploratory study of the present kind, the extent of confirmation of the hypotheses was not discouraging. In some instances, directional predictions were reversed, in others discontinuity at Level II clearly eliminated the possibility of monotonic progression in sex-role development as evidenced by the

1. In an ingenious study, Kagan (1964) found that school items such as blackboards, books, desks and arithmetic were feminine more often than masculine to Grade 2 children ($n = 240$). But by Grade 3, the four items were mostly masculine to boys and feminine to girls.

the use of these measures. It became clear, as the analysis proceeded, that the prospect of a curvilinear rather than a linear assumption in research of this kind should not be lightly dismissed. The disruption in Level II, which occurred in so many of the associations, gives rise to considerable speculation. Although a possible explanation has been given, further consideration is necessary. The implications of this tendency demand careful thought, particularly from teachers and school administrators. New Zealand schools, as has been suggested earlier (see Chapter VI), may yet be shown to be heavily-weighted with F-loaded components.

A considerable part of the study rested upon the extent to which relationships within the family covaried with sex-role development. It needs to be reiterated here that data treatment yielded product-moment correlations and at no point was the strength or weakness of bonds with any member of the family considered as a determiner of sex-role. The Family Relations measure used in this study is still an exploratory tool and hypotheses were not framed to test, simultaneously, familial bonds of both the horizontal and vertical type. Direct comparison of these two dimensions is perceived as a logical development for future research. Inevitably, no doubt, the question will be asked, 'How much is the sibling as an alternative sex-role identifier to the parent really worth?' Although no attempt was made to directly compare parent and sibling correlates of sex-role development in this present study, a possible method which might be used in attempting to answer the question has become evident. The concluding section of Chapter X, where correlates were shown both for parents and for sibling status may provide an intriguing, new dimension to future sex-role research.

Finally, it must be indicated that the study just described was exploratory. It does not pretend to provide satisfactory answers to the comprehensive list of questions pertaining to sex-role identification, only some of which have been posed in the present context. Clearly enough, emphatic certainty, generalisable to

populations at large would be as presumptuous as it would be dangerous; this study has been concerned only with boys; they were drawn from only one urban setting.

Though these and other limitations are recognized, some profitable directions for future research are suggested from this work. Sex-role identification in girls, in which familial and structural correlates are considered, deserves attention. Developmental trends in sex-role processes, curiously neglected until very recent times, need further consideration. In this regard, scant attention has been given to the longitudinal study of sex-role phenomena: whilst it is recognised that longitudinal study is unattractive to the researcher whose goals are short-term, the possibility of such alternative methods as the convergence technique¹ (Bell, 1953, 1954) should not be overlooked.

Other emphases, too, need to be actively promoted. From the work presented here, it is evident that not only is further enquiry necessary concerning horizontal and vertical interactions as sex-role concomitants separately, but that the study of horizontal and vertical relationships conjointly may contribute materially to the knowledge of identificatory processes. Such a strategy as this may lead to the abandonment of the preoccupation with the parent(s)-affects-child(ren) paradigm which, for so long, has impeded the expansion of child development research along a much-needed front. Expanded techniques, too, would place sibling effects realistically within the full configuration of the family. This may serve, on a more practical level, to allay the anxieties of parents, who for so long, have been caused to believe - perhaps erroneously - that they alone serve as sex-role models for their children.

1. Bell's technique is a compromise between longitudinal and cross-sectional methods. The convergence method tests different age groups at an initial testing and overlaps the ages for short-term longitudinal projects for each of the groups.

APPENDICES

APPENDIX I

THE NEW ZEALAND FAMILY: ITS ANTECEDENTS AND ORIGINS

INTRODUCTION

The intensity of relationships within the nuclear family¹ is an issue of crucial significance. It has been indicated (Winch, 1962) that the family is the social group within which the basic functions of society can best be performed. In this sense therefore, it is a task-performing unit. Parsons (1951) supports this view but sees an additional function to be added - the stabilization of the adult personalities of the population. Writes Parsons:

"... it is the combination of these two functional imperatives which explains why, in the 'normal' case it is both true that every adult is a member of a nuclear family and that every child must begin his process of socialization in a nuclear family."

From the earliest moments, the emotional resources of children are heavily invested within the family. Initially, the young child is committed to complete and unswerving dependence. But, over the course of time, the family must encourage and facilitate emancipation. This phenomenon - emergent independence - is an imperative in the process of socialization and it is within this institutional context of the family that significant, far-reaching developmental changes can best be appraised. Within this institution - aptly described as 'a close emotional cooperation' (Parsons and White, 1961) - the differentiation of roles and tasks is experienced; within it children can begin their evaluation of other people; within it they are able to appraise those to whom they are given near-continuous access (i.e. parents and siblings)

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1. The two minimal criteria of nuclearity are (a) a 'solidary' mother-child relationship, extending over a period of years, which transcends physical care and (b) the mother should have a special relationship to the man who is the father of the child outside of her own descent group. (Parsons 1964)

on the three important bases of nurturance, competence and power. Their perceptions of these qualities are the benchmarks upon which intrafamilial affections are developed.

The New Zealand family has escaped the attentions of scholars and research workers until comparatively recent times. Several reasons can be advanced to account for this: (1) The promotion of disciplines within the universities which have had immediate pragmatic value; (2) the relatively-late inception and development of social sciences with particular rather than peripheral interest in the growth and condition of New Zealand societal forms; (3) a reluctance to concede that research into national institutional forms is, in its own right, a legitimate academic pursuit; (4) the tacitly-held assumption that New Zealand society is little different from its English-speaking westernized counterparts.

The unit discussed in this New Zealand setting is the nuclear family: that '... coresidential group fulfilling four explicit functions for its members: sexual, reproductive, economic and educational...' (Murdock 1949). It is necessary to state, however, that well over a decade ago some doubts were entertained about the notion of nuclearity in the family. On examination of a number of societies, it becomes readily apparent that coresidence, sexual cohabitation and education are functions not universally present in them all. Spiro (1958) has shown that in the Israeli kibbutz, coresidence with the children is not observed; Gough (1959) reported that husband-wife was not a social imperative in the Nayar (Malabar Coast) family which, in terms of the operational definition (Murdock, above) is essentially "nuclear". More widely, Leach (1955) protests that there is no one property which can universally and exclusively characterise the nuclear family;

Levy and Fallers (1959) propose that Murdock's four characteristics are functions of small kinship-based units, not functions solely of the nuclear family.

Whilst the comments of Spiro and the others above deserve mention, it must be pointed out that Murdock's description of familial function is an ideal-typical one and that in such a generic description as he offers, it is not imperative that "goodness of fit" with every empirical instance is realised. Exceptions, such as those advanced over the last decade, do not necessarily invalidate it; and the description, as Murdock employs it, is essentially an heuristic device.

For present purposes, the concept of nuclearity will be sustained. It is to be viewed, not in the Murdockian context, but in the sense that whenever the father-mother-child corporation forms an identifiable unit, within which the giving and receiving of affection is discernible, this unit will be known as 'the nuclear family'.

Disintegration or Reallocation?

A dominant theme in sociological literature is that the family is in the process of disintegration. In Britain, the United States and Australia - countries with which we hold some characteristics in common - it is asserted (Zimmerman, 1949; Wilson, 1957; Spratt, 1959) with almost monotonous frequency that the family, as a social institution, is withering. Furthermore, moralists and pessimists cite figures for divorce, delinquency, drunkenness, abortion, sexual immorality, aberration and irreligiosity in support of their lachrymose claims. The gross distortions in such attitudes is directly put by an English scholar: "... such misunderstandings feed the hypochondria of moralists who diagnose a diseased present because they worship a past they do not understand." (McGregor, 1960)

And, it must be added, many such critics as those already mentioned who aver that the modern family is an increasingly ineffectual unit overlook the depravities and brutishness of the lower classes in nineteenth century Britain and Europe. It was not uncommon to find 'working class' and 'criminal class' used synonymously; and David Stow, better known as an ardent social reformer than commentator, reported (1859) that 'half the population of Glasgow was depressed and vicious.'

There seems little point in examining the role and function of the family in the New Zealand setting without acknowledging (i) its origins and (ii) the changes in sex ratios in the last one hundred and twenty years. From such wide-ranging social changes, an inevitable redefinition and reallocation of family function has been effected.

English Antecedents of the New Zealand Family Life

Vilification of the contemporary family is commonplace. It is customary to imply that conditions were much better - for children at least - in the nineteenth century than they are in the mid-twentieth. But, it was harsh and impoverished conditions in nineteenth century Europe that drove many of New Zealand's first settlers to these shores. Unsavory conditions prevailed in Britain long into the nineteenth century. Generations of children exposed to adult insensitivity and industrial exploitation, were denied both skill-training and moral enlightenment. The extent to which the family unit was misused and abused is too often obscured in mawkish sentimentality. Laski (1965) graphically illustrates the appalling conditions under which children were mercilessly used in the full flush of expanding industrialism:

"Children could show new profitability. Much machinery could be tended by children who were plentiful at a penny a day. The Poor Law authorities of London began carting wagon-

loads of children off to Lancashire, there to work twelve or more hours a day, though some were so young they could hardly walk."

And, in 1873, in a speech to the House of Lords, Shaftesbury deserted the factory children of Bradford as 'this set of sad, dejected, cadaverous creatures'.

It was not until 1842 that the employment of women and children in mines was declared illegal; in 1864 the Climbing Boys' Act forbade this ill-usage of little boys; only in 1886 was the selling of girls for prostitution declared a crime; and indeed, it was not until 1923 that British breweries were thwarted by law in their attempts to profit from the drunkenness of children.

Nor was the child's condition within the nineteenth century British family as serene and idyllic as sentimentalists would cause us to believe. As late as the 1880's, the parents' rights were sacrosanct and it was not until 1889 that the state was empowered to intervene to prevent neglect and ill-treatment of the young. Long before this, of course, parents had abdicated from their total responsibility for child-care. The well-to-do assigned their infants to be suckled by wet nurses; their education was left to the whims and vagaries of tutors, or in the latter part of the century, to that proliferating institution, the public school. In fact, before Victoria's reign, the ancient, endowed public schools were even protected against the intrusions of parents by the law. In the humble homes, unconcern for childhood was equally apparent. Godfrey's Cordial, a potent mixture of opium and treacle, was used to 'pacify' the noisy infant; undisciplined children roamed the streets in ply of their nefarious trade of begging, often ending in jail. In Manchester, just prior to 1870, over half the children between three and twelve, neither at school, at home, nor at work, spent their days on the streets. One day, perhaps, the social history of childhood in nineteenth century Britain will be written;

no doubt it will serve to expose the myth of idyllic serenity which besets so many people at the present time.

The New Zealand Case

The rapidity of social change is a current theme in much present-day literature. Comparisons with the past, discussions of emerging trends and new technologies, elaborations of plans and projections appear with increasing and inescapable frequency. Much of the writing in this 'new' vein provides insights into the magnitude of change in social conditions. Some - where what is presented is so grossly apparent that it is superfluous - suggest too much time and energy has been spent in demonstrating the obvious. Enquiry into the history, or present condition of the New Zealand family, however, runs no risk of repeating any common store of fact, for little or nothing has appeared. In many other countries at the present time, reappraisal of the institution of the family is being undertaken; in the New Zealand case, it is an initial appraisal which is still demanded. It is no longer sufficient to assume that we are little more than colonial transfigurations of Englishmen, that 'New Zealand will become an exact copy of England' (Cholmondley, 1854), or that New Zealanders are 'more English than any Englishman at home' (Trollope, 1873).

Over sixty years ago the inappropriateness of attempts to transfer uniquely national elements in education from one cultural milieu to another was clearly perceived (Sadler, 1900). The same argument may be advanced in defence of the development of our practices in child rearing and family life; the interpolation of imported procedures and habits may not always be appropriate. And judgements of the kind which establish that local (or national) practices are better (or worse) than those followed elsewhere must be pronounced with circumspection. Cultural values are elusive:

reflected in, and dynamically transmitted through, the intimacies and practices of family living and their outward extensions into the wider community.

New Zealand, it has been asserted, (Cameron, 1965) possesses characteristics of a particular kind: so, it has even more frequently been stated, do New Zealanders themselves (Chapman, 1952), (Pearson, 1952), (Trollope, 1873), (Butler, 1863), (Slatter, 1959), (Meikle, 1962). Given that the bases upon which such statements are made have rarely been criticised, it must be conceded that the opposite assumption - that New Zealand differs little from other Western societies - is equally dangerous. Cross-cultural research offers ample evidence that even those societies which, superficially appear similar, are indeed sharply dissimilar in habit and custom. And, it might be submitted, the comparison of New Zealand with any one other developed society is no exception. What is being argued is that findings drawn from other social systems may not necessarily be relevant at every point to this particular insular setting.

Needless to say, there is a paucity of information regarding the kinds and qualities of relationship which New Zealand children experience both within their families and beyond them. This predicament was commented on some years ago:

"... we have little dependable knowledge about how and under what circumstances New Zealand children are influenced significantly by the decisions and actions of their elders. We all have opinions and impressions of how children are brought up in this country, but it is doubtful if these are much more than rather personal and limited observations drawn from a relatively small range of cases." (Stroobant, 1958)

And the deficiency persists.

Strangely enough, there is a ready fund of evidence on the development and child rearing practices of the Maori (Fitchie, 1963), (Schwimmer, 1964), (Ausubel, 1961), (Fitchie and Westra, 1966). It is only in comparatively recent times that two studies

have appeared containing valuable data of a cross-cultural nature. Using Herbst's Day-at-Home questionnaire, Brown (1959) demonstrated differences in functions performed within the family in the cities of Melbourne, Perth and Wellington; Landreth (1963) indicated that there are clear differences between the notions of adult sex-roles held by four-year-old children in California and New Zealand. With some justification Landreth argues that these differences are culturally-induced. Although it must be acknowledged that any close comparison of American and New Zealand samples is extremely difficult because of the quite different meaning and status of occupational positions, it cannot be denied that initial explorations of this nature are provocative and exciting.

The New Zealand family has been singularly fortunate, too, in the members of social agencies, both state and non-state which concern themselves in the alleviation of its difficulties. Yet, even in this, it is apparent that many agencies operate with only a foggy appreciation of fundamental characteristics of family life in the New Zealand setting. For many of our social workers, route-ways in family and social welfare are dimly-lit and poorly signposted.

With two meagre exceptions, there are no studies which proffer cross-cultural data in either (i) the development of relationships in childhood or (ii) family life. In fact, only three studies which relate directly to the New Zealand child in his family setting are noted by Roth (1964). Two of these (Dalton, 1940), (Havighurst, 1954) are mimeographed papers and, for some inexplicable reason, the third (Johnson, 1951) appeared in an agricultural journal. A sprinkling of graduate theses with marginal relevance remain immured within the walls of the universities and in very recent times, two books have appeared. One (Hill, Somerset and Grey, 1965) is addressed particularly to the rearing of pre-school children; the other (Morris, 1967) is New Zealand's first modestly-drawn text in child development.

As recently as 1965 it was suggested that '... the sociological emphasis has made a most significant contribution in New Zealand's developing education...' (Melvin, 1965). This situation, it is claimed, stands in contrast to America where the '... most powerful energies have been generated within the psychological movement' (ibid). No doubt Melvin has considered this contention at some length, but whatever the reasons for the assertion, they are not at all clearly explicated. Any emphasis of a sociological nature - as distinct from an emphasis on social welfare in either the literature of education or in a sociology of child development - is difficult to perceive.

Lack of attention to sociology and sociological research per se has been remarked upon by Hansen and King (1965). These writers indicate that while the potential of sociology in New Zealand is great, we are left with little systematic investigation and an array of impressionistic and discursive social analyses. And undoubtedly, we are much the poorer for it. A great deal still remains to be begun.

Origins of the New Zealand Family

The earliest incursions of Europeans into New Zealand were for reasons of exploitation or settlement. As is held by popular belief, the influence of those first European predators, the whalers and sealers was unsavoury. Early books report discreditable events; that rapine flourished and exploitation, both of the Maori and of the land, was rife. An early comment, written by Charles Darwin in 1832, shows that New Zealand '... was not a pleasant place... that the greater part of the English are the very scum of society...' Undoubtedly events did occur which reflected poorly not only on these first visitors from Europe, but on the Crown itself which betrayed little concern for the pattern and quality

of settlement which was being established. But the communities of whalers and sealers, described as 'mission stations of civilization', (Thomson, 1859) were a frank infusion of some of the folkways of nineteenth century Europe. Even the size of their contact was significant. In 1834 there were thirty two whaling ships operating from shorebases in the South Island; in 1838 one hundred and thirty eight whalers and traders called for trade and provisions at the Bay of Islands. There were some who found the new land - and its inhabitants not unattractive. Some took Maori women as de facto wives and evangelized them; they prohibited cannibalism and infanticide. The form of family unit which they set up was wholesome, acceptable and, most importantly, European. Butchers (1929) has written of them:

"Their women bore them in almost all cases numerous half-castes who, well fed and healthy, were so fair of visage as to be a source of paternal pride. The youngsters were taught to wash their skin and comb their hair. Cleanliness in this case ran a dead heat with godliness. The mothers in such families, Wohlers writes, had better food, better clothing, better dwellings than the other women of their race who had Maori husbands, and this raised their minds to a higher level of humanity.

Many of the men were outlaws and crime-hardened without doubt, but they kept the remembrance of one day in seven as a day of rest. They taught their boys the English idea of fair play, and their daughters, while unmarried, the theory, if not the habit, of chastity. There were no women of his own race for the Sealer to mate with. White women and white civilisation were behind them and beyond his reach, but the woman who cooked his food and suckled his children became his life companion, and the main element in the new home he was founding in a new world. She was not his leman, to be discarded when tired of, but the centre of the small world beyond which he had no future."

The whalers and sealers were soon followed by a different group. These, the missionaries consciously promoted a programme of Europeanisation and evangelization, through education.

Generally their efforts are well spoken of, and from the very first, their efforts to plant corners of Old England in New Zealand were laudable. That in some instances there were none-too-savoury corners as well appears to have become obscured in the mists of time. Almost to a man - with Thomas Kendall the disconsolate exception - the missionaries have been applauded for their endeavours. Yet, in 1839, the newspaper of the New Zealand Association indicated that '... the neighbourhood of the missionary settlements soon became the most demoralized in New Zealand...'

Whilst the missionaries themselves were not responsible for the iniquities of their mission station environments, it is apparent that in every instance, their intentions were not entirely altruistic. There were many among them who, imbued by equally generous portions of piety and avarice, unmercifully exploited their newly-Christianized parishes. Some there were, who, through questionable negotiations, had procured holdings of between ten thousand and twenty thousand acres of land, even before the end of the eighteenth forties. And the Church Missionary Society, by its policy of providing bounties for the missionaries with children, unwittingly encouraged exploitation and land aggregation. The society had authorized expenditure of up to fifty pounds for each child. And where acres could be bought for axes and blankets, and where in one district twelve missionaries fathered eighty four children between them, profitable annexation was inevitable. Legally, it was no more than the time-proven system of barter. But it was unfair and unequal, for appropriation for the white man simply meant dispossession for the Maori.

Population and Sex Ratio in Early New Zealand

Settlement, promoted by the New Zealand Company from the eighteenth forties onward, speeded up the growth of population.

Wakefield believed that "the long-established civilization of an old society could be taken up in layers and transferred in the same position to a colony." (see Herron, 1959). But in the immediate situation, the growth encouraged was sexually selective. Ships' records (Sutch, 1966) indicate that for one unspecified period, of 649 who disembarked in New Zealand, 534 were men. And in a report presented to the House of Representatives (A.J.H.R. 1876), it was indicated that of 26,884 immigrants, 19,690 were men.

Although assessments of population were presented from the 1840's onward, the difficulty of determining the population of early New Zealand with any degree of precision is well-known. In 1841 the estimated European population of the young colony was 5000, in 1843 it was 11,489 (New Zealand Colonial Blue Book, 1844); in 1854, 32,554 and in 1860, 79,611 (Statistics of the Colony of New Zealand, 1860). Still later, the Registrar-General's Report (1868) on the first official census speaks of 'almost insuperable difficulties' in obtaining an accurate enumeration.

More pertinent for the present discussion, is the assessment of the proportions of men:women:children - an exercise which has never been attempted. The passenger lists of the early ships are only a rough guide. They frequently listed only a passenger's surname; in the case of steerage passengers neither sex nor name were recorded. Undoubtedly, men predominated. Of the passengers disembarking at Wellington between 1839 and 1840, 493 were men, 293 were women and 409 were children. From the nineteen ships disembarking passengers at this time there were 95 steerage-class passengers (Malgan, 1939) - unidentified creatures to whom the Company and its masters accorded neither name, sex or trade. Of these early pioneers, the majority of women and children remained in the port - a characteristic noted elsewhere too in the new land.

It can only be presumed that the presence of women and children - for the towns at least - did much to counterbalance and assuage the rigour and overbearing masculinity of life in the bush camp and cleared settlement.

Overall, the three groups early on the scene - the missionaries, the sealers, whalers and traders and the migrants - established settlements in which there was a predominance of men. But contrary to popular belief, early New Zealand was never the exclusively-male society which hitherto, New Zealanders have been induced to believe was the case. Table 1 gives substance to the assertion:

TABLE 1

ESTIMATED EUROPEAN POPULATION IN 1843¹

Settlement	Male	Female	Total	Percentage of Females
County of Eden Parish of Waitemata	1506	1016	2522	40.29
District of Port Nicholson	2106	1702	3808	44.69
" " Nelson	1588	1354	2942	46.03
" " New Plymouth	618	473	1091	43.35
" " Banks Peninsula	183	38	221	17.19
" " Bay of Islands	393	276	669	41.26
" " Hokianga	<u>156</u>	<u>80</u>	<u>236</u>	<u>33.89</u>
Total	<u>6550</u>	<u>4939</u>	<u>11,489</u>	<u>42.98</u>

By 1854 although the population had almost trebled, the numerical gaps between the sexes remained (see Table 2).

1. From New Zealand Colonial Blue Book, 1843.

TABLE 2
EUROPEAN POPULATION¹ OF NEW ZEALAND 1854

Province	Male	Female	Total	Percentage of Females
Auckland	6701	5218	11,919	43.77
New Plymouth	1112	982	2094	46.89
Wellington	3311	2920	6231	46.87
Nelson	3816	2672	5853	46.52
Canterbury	2196	1699	3895	43.63
Otago	<u>1408</u>	<u>1149</u>	<u>2557</u>	<u>44.93</u>
	<u>17,914</u>	<u>14,640</u>	<u>32,554</u>	<u>44.98</u>

Twenty years later, the population fell just short of 300,000. The Maori Wars of the sixties, insolvency in several of the provinces and parsimony - provoked by deteriorating prices for wool and corn - kindled the fires of uncertainty about the new land. Whilst total population had increased, the number of women brave enough or foolhardy enough to tempt fortune by settling in the unstable pioneer land had changed but little. Census figures for 1874 make this very clear:

TABLE 3
EUROPEAN POPULATION² OF NEW ZEALAND 1874

Province	Male	Female	Total	Percentage of Females
Auckland	37,106	30,345	67,451	44.99
Taranaki	3,043	2,422	5,465	44.32
Wellington	16,246	13,544	29,790	45.46
Hawkes Bay	5,146	3,812	9,928	38.40

1. From Statistics of New Zealand, 1874 (Official Records).
2. From Statistics of the Colony of New Zealand, 1885.

Province	Male	Female	Total	Percentage of Females
Marlborough	3,659	2,486	6,145	40.46
Nelson	13,545	9,013	22,558	39.95
Westland	9,473	5,387	14,860	36.25
Canterbury	32,294	26,481	58,775	45.06
Otago	50,124	34,992	85,113	41.12
Chatham	78	51	129	39.53
	<u>170,981</u>	<u>128,533</u>	<u>299,514</u>	<u>42.91</u>

Sex ratio is usually expressed as the number of males per one hundred females (Broom and Selanik, 1963), but the ratio used by the New Zealand Censuses is expressed as the number of females per one hundred males. Thus, a figure less than one hundred means there are more males than females, a figure more than one hundred that there are more females than males. This ratio, of course, expresses no more than a simple relationship between males and females in the population and takes no account of such phenomena as mortality rates, wars or migrations. Nor, in this present discussion, is anything more than the national sex ratio presented.¹

By 1881 the sex ratio was 81.7; by 1891, 88.62. It was at this time better than that in the Australian states of Queensland (76.04), New South Wales (84.12) and Western Australia (66.79). At the turn of the century, the disproportion between the sexes was further redressed, so that, by 1901 the sex ratio was 90.33 in a population which had expanded to over 772,000.

Throughout the nineteenth century, the imbalance between the sexes, linked with the many physical challenges of a new environment, encouraged a community of male-centred interests which precluded

1. This must be viewed with caution as significant regional changes have occurred as development proceeded.

the easy acceptance of women and things feminine. Loyalty to one's mates, equally preoccupied in wresting a living from the virgin soil, and the crude camaraderie of the binge at the bar was frequently substituted for the nostalgically-recalled forms of life left behind in the homeland. At the bar itself egalitarian ritual flourished. Drink was itself an anodyne - a means of blotting out the harsh discomforts of colonial living.

From such origins as these, two significant characteristics of New Zealand society emerged: sexual polarization and a proliferation of male-oriented institutional forms. From 1911 onwards, the increase of the female population accelerated appreciably as shown in Table 4.

Table 4.

Sex Ratios Since 1851

1851	77.6	1921	95.6
1861	62.0	1926	95.7
1871	70.4	1936	97.0
1881	81.7	1951	99.1
1891	88.6	1961*	98.8
1901	90.3	1966	99.2
1911	89.6		

(* Includes armed forces abroad)

By the 1950's balance between the sexes was not only almost attained (i.e. 99.1), but sex ratio was better balanced than that in such other developing colonial countries as Canada (95.0), Australia (97.0) and Argentine (85.0). There seems little reason to believe that 'over-

bearing masculinity', that consistently-recorded characteristic of developing western societies, is any more than part of our pioneer and rural history. With the exception of rural-area towns, the urban population first recorded a sex ratio of over one hundred in 1901, and has been regularly repeated since that time. 'Femininity of the urban population', as Franklin (1965) remarked, 'has been characteristic for at least 50 years.' Balance between the sexes, an inevitable consequent of social and economic development, can yet be expected to yield a richer fulfilment of human interaction than ever before in the past.

The New Zealand Family: Rural or Urban?

Such harsh conditions as existed in nineteenth century Britain never prevailed in New Zealand. The provision of education and the protection of children kept pace, albeit haltingly, with economic development. Contingent upon a slow rate of occupational mobility it was easy to retain a component of patrilocality within the family. Political emphasis upon pastoral and agricultural development ensured this, although almost from the very beginning it seems that the farmer and man of the land was outnumbered. Many of those who came as settlers were committed to living as countrymen or small-town dwellers. In 1843, there were 1,863 engaged in agriculture¹ and 1,612 engaged in manufacture and commerce (New Zealand Colonial Blue Book, 1843). In 1848 fifty five percent of the capitalist and professional minority of New ~~Manster~~ (i.e. Wellington Province and the South Island) were described as landed proprietors, farmers and merchants; of those employed, only thirty five percent were pastoral or agricultural labourers. So almost at the half-century, fewer than half of New Zealand's pioneer males were actively engaged on the land. Twenty years later for every self-employed farmer there were four farm labourers, five general labourers, five crafts-

1. Which included sawing timber.

men, two domestic servants, two workers in offices and factories and six miners. 'From the very beginning' as Sutch (1942) pointed out, 'New Zealand had more people depending for a livelihood on selling their labour than there were independent working farmers or farmer-employers'.

But for a long time to come, the New Zealand family was a rural-centred unit. From the eighties on, however, the inseluctable transition to non-agrarian modes of employment proceeded apace. Concern was expressed as early as 1881 in the House of Representatives over 'the drift to the cities' (A.J.H.R. 1881). By the nineties, the great estates¹ of New Zealand, 'Pressed by legislation and red ink' (Chapman, 1952) were beginning to disintegrate as movement to the large centres accelerated. Table 5 illustrates this trend.

TABLE 5

PERCENTAGES OF URBAN-RURAL POPULATION (EXCLUDING MAORI POPULATION)
1881 - 1911

<u>Year</u>	<u>Urban</u>	<u>Rural</u>	<u>Migratory</u>
1881	39.80	59.61	.59
1886	42.46	56.72	.82
1891	43.14	56.33	.53
1901	45.32	54.19	.49
1911	50.13	49.37	.50

So even at the turn of the century only one New Zealander in ten lived in a city with a population of 25,000 or more; and fifty seven percent of the population - Maoris included - was still

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1. (a) Between 1868 and 1893 landowning increased thirteen fold; but landowners only quadrupled in number.
 - (b) In 1883 47% of all Canterbury land (2,800,000 acres) was owned by only 91 persons.
 - (c) In 1891 there were 12,500,000 acres privately owned in New Zealand. Of these 7,000,000 acres were owned by 584 persons.

classified as rural.

As population grew from the 1920's, so urban living became increasingly evident (see Table 6).

TABLE 6

URBAN-RURAL POPULATION GROWTH 1926 - 1966

Year	<u>Urban</u>		<u>Rural</u>	
	Number	Percent	Number	Percent
1926	888,585	63.4	512,416	36.6
1951	1,345,292	69.6	588,302	30.4
1956	1,535,951	70.8	633,663	29.2
1961	1,779,754	73.9	629,665	26.1
1966	2,064,574	77.3	607,534	22.7

As was the case in nineteenth century Britain, authority in the family was firmly rooted in the father. Family stability in the very earliest cases was guaranteed by ensuring continuity of occupations through father-son job-inheritance patterns. Solidarity, cohesiveness and self-sufficiency developed later, not so much within a rurally-situated family, as within a national preoccupation in primary production.

One characteristic of the early family was self-containment. Although not wholly autonomous as a unit of production the early family had many attributes which ensured its persistence. It provided for health and recreation; it supported the church by observing ritual and rite within the home; in many cases it helped educate its children; and clear undisputed authority was vested in its elder members.

Within this tightly-knit unit, it was not believed that children need show 'profitability' in the same vein as in nineteenth century Britain (vide Laski above). Survival and the prevention of want were more pressing than pecuniary gain. But the contribution

of children to the family livelihood was nonetheless notable. McLorran (1900) indicates this when he describes the tasks boys performed:

"The Ponake boys of the very early days (1840-70) had no easy times. Many of them were put to work at a very tender age; some assisted their parents at house-building, brick-making and shell-burning and tree-felling; while those not actually set to do a day's work had to help at home to make both ends meet. The younger members of the family had to provide the necessary firewood for the household and although in the earlier years the fuel was convenient, yet the labour of wood chopping was considerable for the hardy youths upon whom devolved the duty."

To be sure, the New Zealand family was a clear derivative of the British family. At first glance, it may appear that continuation of a British way of life was drawn to order. But this never became the case. Two factors contributed to the development of a particular pioneer form of nuclearity. First, the wider kinship group was frequently missing and in consequence, the New Zealand family turned inwards for physical assistance and emotional support. Second, the relatively-late arrival of industrial production ensured that the transplanted and transformed elements of familialism would be sustained over a longer period of time than in rapidly urbanising societies elsewhere.

The New Zealand family continued as a recognisable outgrowth from Britain; but it was not a replica. As an institutional form it remained pioneer and rurally-oriented. It possessed many, but not all of the features which characterised the family in the pioneer-type economy: a large number of children; close ties of kinship and 'neighbourship'; the handing down - for a time at least - of traditional family roles through successive generations; the intrafamilial and - only to a minor degree - intergenerational dependences; the acceptance of family control and authority over behaviour; and acknowledgement of the advantages of cohesive, unified family life. (Fallding, 1957)

From such beginnings basic family patterns grow: well-integrated, clearly-defined, self-sufficient. But regrettably, we have no definitive work which provides the necessary insights and full historical perspectives about the New Zealand family. Historians have accorded it scant attention so that much of what can be gleaned about these early forms is drawn from scattered biographical and anecdotal sources.

There are many questions which need to be asked too, about the character and structure of the present-day New Zealand family and the relationships which exist within it. The orientation demanded needs neither psychological or sociological pre-emption; other approaches have equal relevance. Borrie (1957) has indicated that there is a legitimate case to be made for the involvement of others: "... one of the major tasks of historical or sociological research," he writes, "is to classify significant types of family structure and to study the determinants of changes or trends in patterns of behaviour." In this regard, significant progress has been made in the United States (Miller and Swanson, 1958), (Parsons, 1949, 1955), (Riesman, 1950) in Britain (Spinley, 1953), (Young and Wilmott, 1957), (Kerr, 1958), (Fletcher, 1962), (Musgrove, 1966) and in Australia (Oeser and Hammond, 1954), (Oesen and Emery, 1954), (Herbst, 1952), (Adler, 1965). By contrast, and in reiteration, studies of the New Zealand family are few, unconcerted and sporadic.

A significant beginning has been made in examining changing patterns in family structure from government statistics. Gibson (1965) had indicated that there have been discernible changes over the past one hundred years: (i) smaller family units, (ii) younger parents and more parents, (iii) a smaller proportion of broken homes, (iv) increases in premarital and extramarital intercourse, (v) reduction of household tasks, (vi) less rigid division of family responsibilities between parents, (vii) easier communication

between parents and children, (viii) greater participation in activities outside the home. Such data can only hope to provide 'the framework of patterns and trends' (Borrie, 1957) but this does not reduce their importance as base-level data. The kind of analysis Gilson provides outlines the trends and patterns clearly and serves a useful purpose in confirming or denying the assertions drawn from non-statistical sources by our many commentators. New Zealand has not really progressed beyond this.

There are many questions which should develop from Gilson's postulated changes. If there are smaller family units, what evidence is there of 'less intimate connection' within the basic family? What effect does the increase in younger parents have on the quality of family relationships? Does the increase in intercourse outside of the family contribute to a decrease in intrafamilial (i.e. not spousal) affection? Does the lightening of family tasks influence affective life within the family? Does the less-rigid division of responsibilities alter intrafamilial relationships? Does communication between parents and children alter as children (and parents) age? Does the family, in aggregation, or each member separately, participate more fully in extra-familial activity? Intriguing questions, they all merit enquiry.

Continuing to gather and interpret data is imperative. But it must be recognized that no such material can ever begin to penetrate into the family or hope to expose the intensities of human interaction and qualities of experience. Whilst it may be true that many tasks, hitherto invested in the family are now far more effectively and expeditiously carried out in the wider community, the views that the family is either experiencing 'a rapid trend toward a climactic breakup' (Zimmerman, 1949) or is being 'stripped of its functions' (Fletcher, 1962) are in the New Zealand setting quite unverified. The view that the family is

declining is a nostalgic regret voiced by commentators who are unable to recognize the novel functions that have developed in the family, many of which are less obvious than the older 'tribal' functions which once sustained it. Perhaps there is a new anti-family note (Spratt, 1959), (Hardin, 1967) in the contemporary world; perhaps there is a functional gap due, as was earlier claimed (Russell, 1932) to industrialization. But there is little evidence of this in New Zealand. A higher proportion of the adult population than ever before is married; an increasing number of young men and women marry before their majority; the shortening of time between marriage and the first child is a measured fact; more people than ever before are married for a longer period of their life span.

There is no one in New Zealand who has disputed the thesis of family disintegration. In the United States however, Parsons (1964) has written cogently of parallel processes of disorganization and reintegration. These, as he sees them, are significant in the disintegration of transition. It is within these processes that economic, recreational, medical, educational and religious functions are reorganized and reallocated. Within these present transitions, the affectional function of the family continues to be significant. The family is the only group which, over the long years from birth to maturity - even beyond it - can provide a continuity of affectional relationships.

The applicability of this Parsonian postulate commands attention in a New Zealand setting. It is this view which is adopted as an article of faith in examining the perceived relationships of the boy within his family.

APPENDIX II

CHRONOLOGICAL SUMMARY OF RESEARCH FINDINGS ON THE DEVELOPMENT OF SEX-ROLE IDENTITY IN BOYS

Author and Date	Review Category	Age and Sex	Instruments Used	Relevant Findings	
Bach,	1946	4	6-10, M & F	Doll play	Father-absent boys showed reduced doll-play aggression
Rabban	1950	2	2½-8, M & F	Toy preferences	After 3 yrs. boys > girls in sex-appropriate choices Working-class boys aged 5 > middle-class boys aged 5 in sex-role identification Middle-class boys achieve sex-role identification at 6
Weider and Noller,	1950	3	8-10, M & F	Figure drawing	Girls > boys in drawing same-sex parent larger and more often
Cava and Raush,	1952	1 (111)	Grade XII, M	Blacky Pictures	Nonconflicted boys > conflicted boys on similarities to fathers in interests, activities and traits n.s. differences on oedipal intensity, identification and ego-ideal dimensions
Jolles,	1952	3	5-12, M & F	Figure drawing	Younger boys > older boys in drawing opposite-sex figure first
Weider and Noller	1952	3	8-10, M & F	Figure drawing	Girls > boys in drawing same-sex parent larger and more often
Brodbeck,	1954	1 (1)	10-14, M & F	Personality traits Evaluation of traits	Younger children (aged 10) identified more closely with same-sex parent Older children (aged 14) identified more closely with opposite sex parent Boys > girls in favourable perceptions of fathers n.s. differences in favourable perceptions of mothers

Lazowick,	1955	1 (1)	College Students M & F	Semantic differential Taylor MAS	No close parent identification for either sex or activity, potency, evaluation M>F on parent identification Low anxiety>high anxiety on parent similarity Actual identification>perceived identification for both sexes
Fauls and Smith,	1956	2	4:9-5:9, M & F	Paired pictures Questions	Boys>girls in male activity choices Only boys>MM ₂ ; FM ₂ on sex-appropriate activity choices Boys perceive parents as preferring sex- appropriate activity choices Boys>girls in perceived paternal preferences
Payne and Mussen,	1956	1 (ii)	Junior and Senior High School, M	CPI to boys and parents Story completion	High father-identifying boys>low father- identifying boys on (i) perceptions of fathers as rewarding and affectionate (ii) perceptions of fathers>mothers as greater rewarding (iii) perceptions of parents (considered together) as rewarding and warm
Brown,	1957	2	5:6-11:6 M & F	IT Scale	Male sex-role-preference increases with age Boys>girls in early sex-appropriate-preferences
Gray and Klaus,	1957	1 (i)	College Students M & F	Values questionnaire	Tested and perceived similarities greater for both sexes and like-sexed parent Males>females in distance from like-sexed parent
Emmerich,	1959	4	3:6-5:0, M & F	Doll play Parent questionnaire	Boys>girls in choice of parent doll Boys>girls in perception: (i) of fathers as controlling (ii) of mothers as nurturant

Lynn and Sawrey,	1959	4	8-9, M & F	Doll play Mother interviews	Father-absent boys > girls and controls in:- (i) peer adjustment (ii) maturity (iii) compensatory masculinity
Mussen and Distler,	1959	1 (ii)	5 M	IT Scale Doll play Open-ended stories	Boys high on sex-role preference > boys low on sex-role preference on perception of fathers as (i) rewarding (ii) nurturant Boys high on father-identification perceive fathers as (i) punitive (ii) threatening
Rosenberg and Sutton-Smith,	1959	2	Grades IV-VI M & F	Games Check List	Games and play activities differentiated between boys and girls
Angrilli,	1960	2	4-5½, M	<u>For boys</u> Activity Preference Check List Behaviour and Personality Rating Scale Figure Drawing <u>For Parents</u> Strong Vocational Interest Terman-Miles Attitude Interest Figure drawing	Psychosexual identification of parents not directly related to psychosexual identification of pre-school boys
Hartup and Zook,	1960	2	3-4, M & F	IT Scale	Boys > girls in early sex-appropriate choices n.s. differences upper working class/middle class boys on sex-role preference

Borstellmann,	1961	2	3;4-5:0 M & F	IT Scale Pictures Toy preference	Boys > girls on sex-appropriate choices Sex of experimenter n.s. in effect on toy choice*
Kohlberg and Zigler,	1961	2	4-8, M & F	IT Scale	IT figure connoted masculinity to all boys and half of girls
Rosenberg and Sutton-Smith, 1961	1961	2	Grades IV-VI M & F	Play and Games Check List CMAS Impulsivity Scale Personality Inventory (Brown)	High-feminine boys > low feminine boys on (i) impulsivity (ii) neuroticism (iii) anxiety Opposite-sex (Feminine) Scale > same sex (masculine) scale in discerning emotional stability
P. Sears,	1961	4	Pre-school M & F	Doll play	Boys > girls in father-directed aggression Father-present boys > father-absent boys in doll play aggression
Lofkowitz,	1962	2	8-9, M & F	Games and Activity Preference Draw-a-person CTMM (short form) Parent interviews	Boys high on sex-role preference have (i) nurturant inst (ii) parents who share discipline (iii) higher social class origins (iv) higher intelligence and (v) drew male figures first Aggression is n.s. in boys' sex-role preference
Clark,	1963	2	CA 6:3-20:2 Stanford-Binet IQ 26-75 M & F	IT Scale	Boys' make sex-role preference > girls' female sex-role preference Sex-role preference correlates more highly with intelligence than with chronological age

de Lucia,	1963	2	5:10-10:0 M & F	Paired pictures	Boys > girls on sex-appropriate choices Boys sex-role identification increased with age except for slight reversal at Grade IV
Hall and Keith,	1963	2	8-10, M & F	IT Scale	Boys > girls on sex-role preference Lower class boys > upper class boys on sex-role preference
Lansky and McKay,	1963	2	5:0-6:1, M & F	IT Scale (IT concealed)	IT figure connotes masculinity Boys scores dispensed more widely than girls' scores Bipolar M-F assumption untenable
McHugh,	1963	3	6-12, M & F	Figure drawing	Boys' female drawings > girls' female drawings in showing female activity occupied Girls drew same-sex figure consistently from 6-12; boys drew same-sex figure consistently only at 8
Hussen and Rutherford,	1963	1 (ii)	Grade I, M & F	IT Scale Doll play Parent interview CPI (M-F and self- acceptance scales)	High masculine boys > low masculine boys in perception of father is (i) nurturant (ii) punitive Doll-play perceptions of high masculine boys low masculine boys on mothers n.s. n.s. differences from parental encouragement for sex-appropriate games n.s. differences from parent personality traits on CPI
Rosenberg and Sutton-Smith,	1964	2	Grades III-IV M & F	Play and Games Check List	Improved lists' differentiation between boys and girls
Hetherington,	1965	2	4-5, 6-8, 9-11, M & F	IT Scale Parental dominance scale for parent- child similarity Imitation task	Mother dominant boys > father dominant boys on low-male sex-role preference Male role preferred by 4-5 in boys Boys > girls in development of sex-appropriate role preference

(continues)

Hetherington (continued)

				In father-dominant homes boys' identification with father > mother In mother-dominant homes boys' identification with mother > father Boys imitation of dominant parent > boys' imitation of passive parent
Sher and Lansky, n.d. Sher	2 1965	4-5, 6-8, 9-11, M & F	IT Scale (IT revealed, IT concealed, IT subject-sexed)	IT figure contains masculine cues Girls' choices influenced > boys' choices by 'masculinity' of IT IT Scale measures sex-role knowledge or sex-role envy for girls
Sears, Rau, Alpert,	1 (11) 1966	4 M & F	Behavioural ratings from observations IT Scale Area usage Toy preference Observations of mother-child interaction Doll play Parent interviews	Girls > boys in rate of sex-role development Masculine boys' parents: (i) not warm (ii) did not use love-centred disciplinary techniques (iii) did not perceive themselves as models Mother-child interaction showed mothers: (i) desirous of independence in children (ii) desirous of adult role behaviour in children (iii) warm Punishment (both fathers and mothers) → feminization Nonpermissiveness of sex → feminization in boys Nonpermissiveness of aggression → feminization in boys From Behavioural Maturity Scale: immaturity impede gender role develop High masculine boys > low masculine boys on: (i) early separation from mother (ii) low demands for toilet matters (iii) lenient toilet training

APPENDIX III

Items in Adaptation of the Family Relations TestPositive Outgoing Feelings

1. This person is always very nice.
2. This person is nice to play with.
3. This person is kind-hearted.
4. This person is jolly.
5. This person often helps the others.
6. This person is lots of fun.
7. This person deserves a present.
8. I love this person very much.
9. I would like to keep this person always near me.
10. I would like to sit on this person's knee.

Positive Incoming Feelings

11. This person likes to play with me.
12. This person is very kind to me.
13. This person makes me feel very happy.
14. This person likes to help me.
15. This person thinks I am a nice boy.
16. This person smiles at me.
17. This person often wants to be with me.
18. This person always listens to what I say.
19. This person likes me very much.
20. This person likes to give me things.

Negative Outgoing Feelings

21. This person spoils other people's fun.
22. This person is bad-tempered.
23. This person is not very patient.
24. This person is sometimes too fussy.
25. This person sometimes makes me feel very angry.
26. This person sometimes grumbles too much.
27. Sometimes I don't like this person.
28. Sometimes I hate this person.
29. Sometimes I would like to spank/smack/hit this person.
30. This person is a nuisance.

Negative Incoming Feelings

31. This person hits me.
32. This person teases me.
33. This person scolds me (tells me off).
34. This person won't play with me when I feel like it.
35. This person won't help me when I am in trouble.
36. This person is too busy to have time for me.
37. This person is always complaining about me.
38. This person makes me feel sad.
39. This person gets cross with me.
40. This person makes me feel foolish.

PLAY AND GAME LIST *NAME:AGE:CLASS:SCHOOL:TEACHER:ROOM:TODAY'S DATE:INSTRUCTIONS:

Here are a lot of games. Some you will know, some you will not know.

In the left-hand column, labelled KNOW/DON'T KNOW mark each game which you know how to play now with a tick in the box. If you do not know the game, leave the box empty.

ORAL INSTRUCTION: SECOND ADMINISTRATION

This time go back to the beginning. For each game you know show whether or not you like it or dislike it by placing a neat tick in one of the boxes.

There are no right and wrong answers. Just be very accurate in your choices.

KNOW/DON'T KNOWLIKEDISLIKE

<input type="checkbox"/>	1. sewing	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	2. making model aeroplanes	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	3. hopscotch	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	4. drop the handkerchief	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	5. basketball	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	6. shooting	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	7. stoop tag	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	8. houses	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	9. spacemen	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	10. throwing snowballs	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	11. dolls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	12. darts	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	13. fishing	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	14. football	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	15. actresses	<input type="checkbox"/>	<input type="checkbox"/>

* For convenience of presentation in this Appendix, typeset has been modified from that employed in original tests.

KNOW/

DON'T KNOWLIKEDISLIKE

	16. soldiers		
	17 cars		
	18. climbing		
	19. building forts		
	20. bandits		
	21. cops and robbers		
	22. softball		
	23. London Bridge		
	24. using tools		
	25. Knucklebones (fivestones) (jackstones)		
	26. in and out the windows		
	27. schools		
	28. marbles		
	29. here we go round the mulberry bush		
	30. making a radio		
	31. Giant steps		
	32. crocheting		
	33. shops		
	34. hunting		
	35. actors		
	36. knitting		
	37. cooking		
	38. ring-around-the-rosy		
	39. wrestling		
	40. farmer in the dell		
	41. churches		
	42. bows and arrows		
	43. making machines work		
	44. playing with toy trains		
	45. dancing		

KNOW/
DON'T KNOW

LIKE

DISLIKE

- 46. jump the rope
- 47. boxing
- 48. cowboys
- 49. dressing up
- 50. doing cartwheels

Copy to All Level I, II Parents.

MASSEY UNIVERSITY OF MANAWATU

Department of Education

Telephone: 76144

Dear

I am engaged on a research enquiry on differences in identification in boys at the ages of 5-6, 7-8, 11 and 15 is one of 260 boys I would like to work with on this study in which I am taking a small number of boys at each of the ages specified from a variety of schools.

Participation in this enquiry entails school sessions at times convenient to the schools, and there is no great loss of time from class.

The Department of Education and Headmasters are being kept informed of progress in this study in which some work has already begun. All parents or guardians are advised of the selection of their children and, of those written to so far, their willingness to be included has been most gratifying.

As the study advances, those whose boys are participating will be kept informed of the progress made. I am sure the insights gained about New Zealand children will in due time be of benefit to parents and teachers.

I trust, unless I hear to the contrary, that you will be agreeable to participating.

Yours sincerely

Department of Education

Copy to Level III Parents

M A S S E Y U N I V E R S I T Y

Department of Education

Telephone: 76144

Dear,

I am engaged in a research enquiry on differences in identification in boys at the ages of 5 and 6, 7 and 8 and 11 and 12.

The study is breaking new ground in human development research and work is already completed with the two younger age groups.

The New Zealand Education Department through the District Senior Inspector of Schools approves of this work being conducted in the schools and is giving considerable encouragement. Your school's headmaster is fully aware of the nature of the work being carried out and has offered his cooperation for the short period remaining.

..... is one of the boys I would like to include in this study, for which I have selected a group of boys from each of the intermediate schools in Palmerston North. Participation in this study entails short sessions only, at times convenient to the schools, so there is no great loss of time from classes.

Children enjoy the sessions, which are not arduous; they will, at this age, be working in groups rather than individually. No names are divulged at any stage of the investigation and there will be no questions which cause distress or embarrassment to the children.

All parents or guardians of boys selected have been advised of their selection and for those selected so far there have been no refusals. The response and willingness of parents in this city to help us develop fresh insights is highly gratifying and encouraging.

As the study advances, those whose boys are participating will be kept informed of the progress made. The knowledge we gain about New Zealand children will, in due time, be of benefit to both parents and teachers.

I trust unless I hear to the contrary, that you will be agreeable to your son's selection. Further details will gladly be given if you ring me at 76-145 or call at Caccia Birch House, Te Awa Awa Street.

Yours sincerely,

Department of Education

Copy to All Level III Parents by Mail.

MASSEY UNIVERSITY

Department of Education

MEMORANDUM

"Identification is that developmental process through which a child thinks, feels, acts or becomes like one other person or other people."

A study of identification is being carried out by Massey University at the present time. We believe there are far-reaching changes-with-age in this process. If we can demonstrate this, the research has yielded information of real value to teachers, parents and all others concerned with the rearing and educating of children.

The research is fully approved by the Department of Education, head teachers and the District Senior Inspector of schools have been totally cooperative. Already data has been gathered from boys aged 5, 6, 7 and 8 in Palmerston North primary schools.

In a short time, the third and final phase of data gathering will begin in our intermediate schools. A small number of parents will be invited to allow their sons to participate. The work is enjoyed by the children selected and there is no aspect which causes difficulty or embarrassment, nor is there any irrevocable loss of school time.

This brief notice merely serves to advise you that this is a reputable study, approved by the Department of Education and all Head Teachers, which your own university is embarked upon.

Table Appendix IV.1.

Correlations Between Positive Outgoing Feelings and Masculinity, Femininity
and Sex-role Preference in Two-child Families

	MM ₂			FM ₂			M ₁ M			M ₁ F		
	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib
<u>Masculinity</u>												
Level I	246	497	-299	003	145	-355	343	215	-359	401	-600*	-116
Level II	169	498	109	-313	-114	370	-062	103	312	311	116	-445*
Level III	-036	-209	070	114	-243	-214	-709**	-227	732**	-114	-086	-105
<u>Femininity</u>												
Level I	344	-122	-645	-044	170	-140	-618**	392	559**	036	161	067
Level II	-024	-286	-145	-418	-340	049	-078	155	234	-076	403	542**
Level III	-251	359	-024	548***	-137	363	-222	316	-022	-107	217	151
<u>Sex-role Preference</u>												
Level I	576	-254	-385	118	361	-529*	-093	-150	-179	-192	071	009
Level II	-368	499	173	-702	661*	533	084	-225	-282	112	129	143

* p = <.10; ** p = <.05; *** p = <.02; **** p = <.01.

Table Appendix IV.2.

Correlations between Positive Incoming Feelings and Masculinity, Femininity
and Sex-role Preference in Two-child Families

	MM ₂			FM ₂			M ₁ M			M ₁ F		
	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib
<u>Masculinity</u>												
Level I	013	789*	-648	-196	-104	-268	-095	288	-486*	653**	-579*	-147
Level II	-295	207	313	-662*	138	827***	-525*	605**	362	-018	-093	-089
Level III	-237	-087	350*	249	-328	-061	219	-083	715**	026	121	-145
<u>Femininity</u>												
Level I	642	426	-658	436	238	-412	-538*	392	386	-465	-057	684**
Level II	-001	036	-166	-549*	479	-102	-264	-237	329	312	121	-315**
Level III	261	015	-131	372	309	095	-263	081	027	-059	-238	416**
<u>Sex-role Preference</u>												
Level I	024	619	-491	-278	-132	-107	184	-157	-113	-262	-061	371
Level II	-772****	609**	116	315	-220	502	-129	220	-681**	352	-119	-263

* p < .10; ** p < .05; *** p < .02; **** p < .01.

Table Appendix IV.3.

Correlations between Negative Outgoing Feelings and Masculinity, Femininity
and Sex-role Preference in Two-child Families.

	MM ₂			FM ₂			M ₁ M			M ₁ F		
	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib
<u>Masculinity</u>												
Level I	-061	-467	637	-161	-003	-430	-735 ^{****}	-682 ^{***}	040	-092	-461	583 [*]
Level II	-297	-509	-030	305	457	-313	216	157	052	-298	-200	-003
Level III	-122	461	164	-015	-374	382	185	-242	-512	288	263	-756 ^{****}
<u>Femininity</u>												
Level I	072	670	-210	250	013	-504 [*]	408	240	214	-245	058	348
Level II	484	153	075	325	213	198	180	191	092	304	307	186
Level III	501 ^{****}	-354 [*]	-222	-021	-762 ^{****}	094	-200	-048	463	-231	-214	070
<u>Sex-role Preference</u>												
Level I	279	768 [*]	-558	-347	251	636 ^{***}	-356	-322	280	-003	-510	371
Level II	281	-398	-300	-204	200	-669 [*]	-113	-177	209	273	309	263

* p = <.10; ** p = <.05; *** p = <.02; **** p = <.01.

Table Appendix IV.4.

Correlations between Negative Incoming Feelings and Masculinity, Femininity
and Sex-role Preference in Two-child Families.

	M ₂			F ₂			M ₁ M			M ₁ F		
	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib
<u>Masculinity</u>												
Level I	274	-619	116	-051	028	-459	-143	189	-107	-311	197	653 ^{**}
Level II	-398	-331	-483	345	347	-220	234	198	-579	375	-552 ^{**}	063
Level III	-116	059	-166	283	-118	351	-024	-291	-112	-114	156	-261
<u>Femininity</u>												
Level I	892 ^{***}	764 [*]	-720	139	395	-113	353	-041	395	187	253	-366
Level II	030	201	175	460	577	093	061	-029	321	225	471 [*]	-263
Level III	500 ^{****}	029	071	170	335	-176	-613 [*]	360	685 ^{**}	-084	-221	073
<u>Sex-role Preference</u>												
Level I	654	704	-881 ^{**}	790 ^{****}	315	356	-088	-227	-078	-462	534	319
Level II	-422	-480	320	-499	-618	-068	-166	-354	173	004	287	-098

* p = <.10; ** p = <.05; *** p = <.02; **** p = <.01.

Table Appendix IV.5.

Correlations between Total Feelings and Masculinity, Femininity and
Sex-role Preference in Two-child Families

	MM ₂			FM ₂			M ₁ M			M ₁ F		
	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib	Fa	Mo	Sib
<u>Masculinity</u>												
Level I	252	434	-141	-160	-099	-242	-283	136	-267	-238	-702 ^{**}	497
Level II	-384	200	134	-319	353	-115	070	591	-258	227	303	277
Level III	-297	-092	126	078	-386	319	-222	-083	211	233	214	-178
<u>Femininity</u>												
Level I	903 ^{***}	692	-832 ^{**}	360	332	-431	-350	602	564 ^{**}	-136	190	312
Level II	237	-014	066	455	415	195	017	-139	062	366	183	162
Level III	533 ^{***}	133	-133	579 ^{****}	278	127	-762 ^{***}	243	623 [*]	-130	-209	358 [*]
<u>Sex-role Preference</u>												
Level I	738 [*]	762 [*]	-092	-378 [*]	-288	068	-052	-447	036	-399	-206	475
Level II	-740 ^c	564 ^{**}	221	-826 ^{***}	031	-365	-197	-218	-032	395	156	008

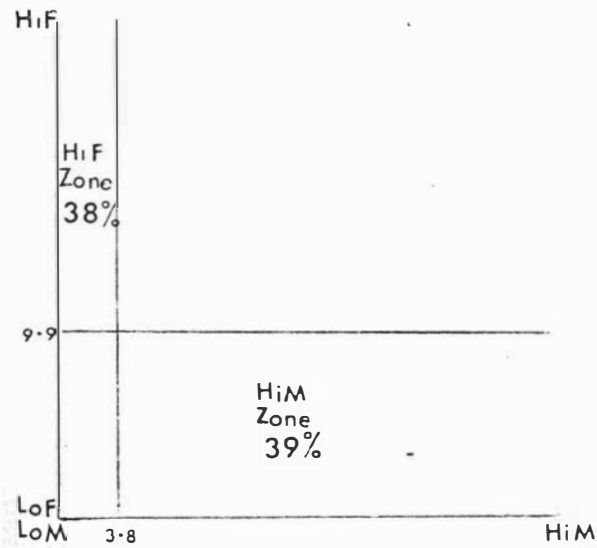
* p = <.10; ** p = <.05; *** p = <.02; **** p = <.01.

Appendix V.

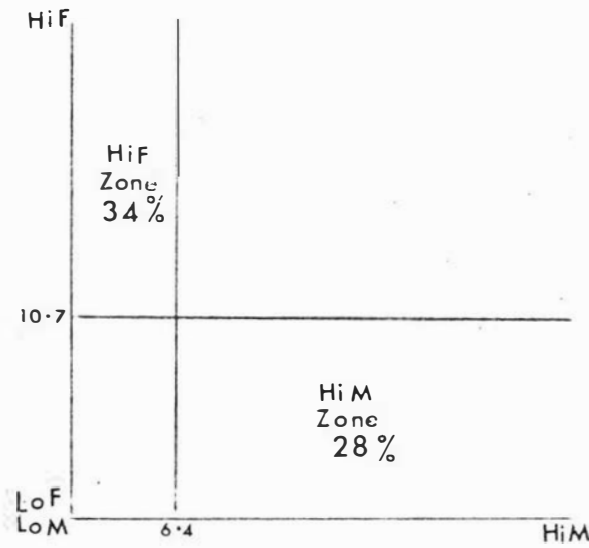
The FM Diametric. Percentages of Boys in High Feminine and High Masculine Zones
(Total Sample)

FM DIAMETRIC

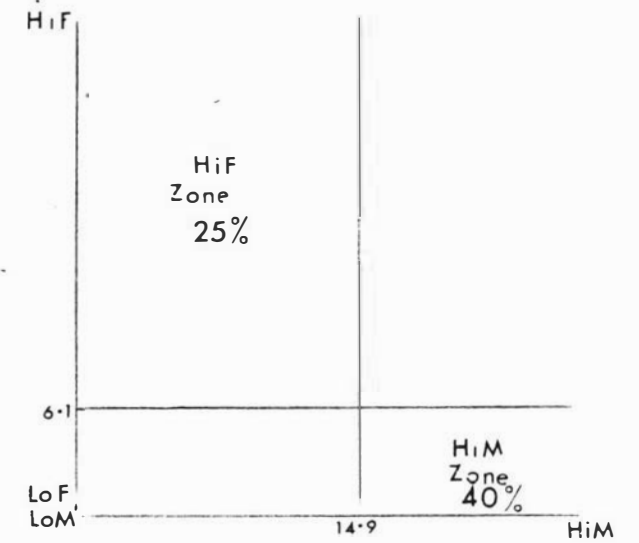
Level I



Level II



Level III



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