THE PSYCHOLOGY OF DEPRIVATION IN CHILDHOOD

A Practical Study of Certain Specific Problems

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INTRODUCTION

In another context the present author has discussed the psychology of deprivation, and reviewed the literature on the subject as fully as possible[+]. A theory of deprivation has been proposed, using both the facts available on the effects of deprivation and those relating to normal child development. The present study has aimed to examine further the main points of discussion in that work.

The investigation was carried out in a large cottage-Home community, which makes in fact a children's village. At the time of this work the village was populated by about 850 children, both boys and girls, of all ages from a few weeks to sixteen or seventeen years. About 750 of these children were of school age. Roughly two-thirds of the population were boys. Many of the children were placed by Local Authorities, but the majority were privately placed by a surviving parent or relative following the break-up of the home by death, desertion, or in some cases illness, of the parents.

The Homes were originally founded to care for the destitute and parentless children that were so often to be found wandering deserted on the City streets seventy or eighty

[+] Thesis submitted for the Ph.D. degree, University of Edinburgh, 1954.

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years ago, and the genuine orphans of working people whose relatives were unable to make other arrangements for them. The early history of the Homes is one of devoted endeavour inspired by a real understanding of Christian living, and its foundation was the fruits of the labours of a pioneer in child care who anticipated the Curtis Report by nearly a century.

To-day the needs have changed, and as is universal among such places, relatively few of the children are genuine orphans, but something like nine-tenths of them are the children of broken-homes or illegitimate: the majority have both parents living. None of the children are delinquents, though some have been placed on Court orders owing to parental neglect. Mentally defective children are not accepted, and the Homes do not claim to supply the special needs of these children, which are more appropriately dealt with by M.D. Institutions. Unfortunately some Local Authorities and others have not been above trying to 'palm off' such a child instead of securing a place in an M.D. Institution, and also a number of the children admitted at an age too early for diagnosis turn out to be certifiable. The intended population of the Homes can be described as 'deprived children of normal intelligence.' (Where normal is interpreted as anything above the defective level).

The children under school age are cared for in

Baby Homes, which contain a dozen to a score of children. Nursing infants are together in one Home, where the standard of care is very high. The staff ratio is also high, about one nurse to three babies. As the children begin to walk they are transferred to Toddler Homes, and as they approach school age the Toddlers are transferred to the Cottages.

The Cottages contain an average of about 20 children. Some of the Cottages are mixed, brothers and sisters being kept together, but most are either boys' or girls'. Some of the Cottages are staffed by single women, and others by married couples. In the latter case the man works at his own trade about the village during school hours, but the working hours are purposely kept short to permit him to be in the Cottage for most of the time that the children are there. The children attend a school situated in the extensive grounds, which has primary and secondary-modern departments. This school is staffed and run by the County Education Committee, and the Management of the Homes have no responsibility for its organisation or conduct. Qualified children travel daily to a nearby town, and attend a County Secondary School.

The grounds of the Homes include playing fields and other recreational facilities. There is a resident Medical Superintendent, who is responsible for the health

of the children, and the standard of medical care is very high indeed. The Homes runs its own farm, which supplies fresh milk, eggs and vegetables. The general organisation is under the Superintendent, who is also more especially concerned with the welfare of the boys. The Matron is responsible to him for domestic arrangements and for the general welfare of the girls.

The Homes are situated in a rural district some little distance from the nearest large town, and it therefore forms a somewhat closed community. The children included in this study have had relatively little contact with urban life, or with children living in their own homes, and the 'separateness' of this community is a factor that needs to be borne in mind.

The investigator was given every facility for his work. No restrictions were imposed upon him, and he was free to enter any of the cottages and to examine any of the children. He was supplied with accommodation in which to work, and residential accommodation was also given. He had full access to the case records of the children.

It speaks highly of the enlightened attitude of the administration that it has encouraged this work in the hope that the information derived might ultimately benefit the children.

The facilities for research were exceptionally good, and although no stipulation to this effect was made, the investigator felt it right to offer to give such help as he could to the administration in dealing with psychological questions as they arose. In consequence a small residential and out-patient clinic was set up, and in the nine months in which he was in the Homes, a considerable amount of psychological work was done, apart from that which appears in this thesis. This included play-therapy groups with disturbed children, advising the administration and house-parents on particular children, examining children being considered for boarding-out or other special treatment, the diagnosis of mental deficiency and the examination of all newly admitted children.

The standard of care in the Homes in question is as high as in any. This institution has been fortunate in having less financial stringency than many, and its standards have been less subject to restriction on this account than is commonly the case with voluntary Homes. The children have lacked nothing that money and devoted service could reasonably obtain, but parents' love cannot be bought, and except by the adoption of a child into a home with a father and a mother that will cherish him as their own, the problem is one that admits of no solution, however devotedly it may be sought.

In the following pages there is much that could be taken as a condemnation of institution treatment. Possibly it is a condemnation of such treatment, but it should be emphasised that the blame attaches to Society and certainly not to Institutions. All the children covered by this study have had long institution experience, mostly from early infancy, and it is well recognised now, thanks to the work of Bowlby and others, that such treatment is almost always productive of unfortunate results. Family life seems irreplaceable, and even in the best of institutions we have not yet discovered a way of avoiding these unhappy results altogether. Institutional rearing of young children is admittedly bad: it is admitted in the official publications of the Children's Department and is emphasised in many scientific studies. It must not be supposed, however, that institutions are run by bad people insensitive to the well-being of their charges.

Institutions are the result of evil conditions in Society itself, and we are all of us responsible for the evil in society. Those who run the institutions are endeavouring to remedy a situation that Society has produced, and trying to make the best of an extremely difficult situation; we must praise them for these efforts, and not badger them with ill-placed criticism.

There is certainly blame to be given for the results of institutional care, but the blame attaches to Society that

causes them and not to the Managements of these institutions: indeed, we might reason that those running such places are the only persons free from this stigma, for they are trying to solve the problem created by Society.

Furthermore, the literature reviewed in Volume One makes it clear that the results of institutional care in early life are universal: studies in America or the Continent of Europe report the same findings. We cannot, therefore, regard what is reported here as peculiar to the particular institution in which the study was made.

Whilst we should condemn the system that makes institutions necessary, it is illogical to condemn the institutions themselves. The present work must not be regarded as in any way an attack on any particular institution or on institution treatment in general. For good or ill, the state of our culture makes institution treatment inevitable for some children, and this work is intended as a frank and unbiassed study of this method of care, in order to suggest ways in which we may improve the welfare of these children. Its criticisms aim at being constructive.

A Practical Note on Work with Deprived Children.

The author's earlier experience of work with children was among privileged groups, often of superior intelligence. On coming to work with under-privileged groups, a considerable re-orientation was needed, and a revision of standards not only as regards the cultural norms, but also in responsiveness to tests and other techniques of assessment.

The chapters of the first volume will make it clear that institution children suffer a restriction of personality and mental development which is reflected upon the manner in which one deals with them. Handling such children is like sailing a water-logged boat, which instead of being lively and quickly responsive to the helm, is sluggish in movement and slow in response. Real rapport is often difficult to establish with institution children, for one cannot easily get beyond the very superficial interpersonal relationships that they habitually adopt. Their motivation is weak, and one cannot without constant effort maintain them at a level in, say, an intelligence test situation, which approximates to their maximum. In consequence more time and more energy is required to produce a true result than with normal children. This fact has been brought home to the author in a number of instances where a child has been tested competently under the usually adequate conditions

by an experienced educational psychologist, and has been given an I.Q. in the 70's or 80's. On an impartial retest under conditions of better rapport (occasioned partly perhaps by a better understanding of the peculiarities of these children, and partly by less pressure of time) the author has found the child to test 20 or 30 points higher. Careful observation and retest has established beyond doubt that the higher figure is a true one in many cases. Whilst the average of these children is certainly low on almost any sort of test, there are not infrequent individual cases where serious underestimates can arise in testing them, and great care and patient observation is needed to do justice to these children. The 'streamlined' testing technique which an experienced educational psychologist acquires in working with children from a more normal background, and which gives unquestionable results, can lead to errors in working with deprived children, and competence in testing must be supplemented by acute clinical insight. Possibly the knowledge that institution children in general do test low, even under the best conditions, gives rise to an expectation which may cause more intelligent children to be overlooked. The personality differences between normal and deprived children also tend to mask brightness when it does occur in the latter.

No sort of work with such children is easy, whether psychological or just the ordinary round of care and upbringing. Group tests in any form are particularly inappropriate with deprived children, who are deficient in those subtle matters of social incentive that appear to operate in group test situations. The author has noticed that on such tests as the Moray House Group Tests, the majority of such children come out in the low 80's almost irrespective of their true abilities. Research in this subject might be rewarding. It is only by careful individual testing that accurate results can be obtained, and this prohibits techniques involving the statistical analysis of mass-data derived from questionnaire or group tests. Valid research is therefore of necessity slow and painstaking.

The Aims of the Study.

The first problem to be examined is the comparison of the two methods of care, one in which boys are brought up in Cottages with exclusively female staff, and the other in Cottages run by a married couple. In the former type of Cottage there is no father-figure, whereas in the latter a father-figure is present, and the question resolves itself into the results of rearing deprived children with and without a father-figure. The reasons

for an interest in this question have been discussed very fully in Volume One.

Towards this end the fullest possible clinical examination was made of two groups of boys brought up in these ways. In view of the conclusions reached in Volume One, it is expected that differences between the two groups might be found both in their attitudes towards their own sex-roles, and in broader features of adjustment and psychological development. The following groups of test were therefore applied:

a. A measure of 'masculinity-femininity'.

b. A measure of 'social maturity'.

c. Projective techniques aimed at exposing self-attitudes and attitudes to parent figures.

d. Tests of intellectual factors.

On the basis of these batteries a general personality study was made of each child.

The Rorschach Test was also given to every boy, and it was expected that this item would contribute materially to the data: it was in fact an important part of the original plan for the study. However, certain practical difficulties arise in using the Rorschach as a source of clinical data on children, and the Rorschach material has not been used in the personality assessment. Instead the data receives

separate consideration in a later section of this work.

Certain subsidiary problems are also examined, and these will be introduced in their appropriate contexts.

The Subjects of the Study.

In order to eliminate other variables as far as possible, boys were selected who had the minimum of experience outside the Homes. All the cases of boys who had been admitted to the Homes when younger than six months of age, were reviewed, and the list included over a hundred names. From this the children under school age were first eliminated. The bulk of the infant admissions are illegitimate children of poor inheritance, and a number prove in course of time to be mentally defective. Boys known to be of such low intelligence were rejected from the group. (It should be remarked in this connection that the present great difficulty in getting cases admitted to mental defective institutions has resulted in an undue number of these children remaining in the Homes, but this has not been because the administration has failed to make strenuous efforts to secure other accommodation for them: it is an unfortunate result of the lack of bed-space in M.D. Institutions, especially for juveniles. The policy of

* These groups are not large, though they compare favourably in size with many widely accepted studies. They include every available subject in a large institution satisfying the experimental conditions. The circumstances, which are possibly unique in Britain, give a particularly valuable population for the present study, and what the groups lack in size they gain in homogeniety. It would be almost impossible, in practise, to find a group in which environmental conditions were so uniform and irrelevant variables so few.

Whilst it is not claimed, of course, that the two groups of subjects were reared in environments identical except for the one experimental variable, ~~but~~ these conditions are approached about as nearly as one can expect to find.

the Homes is to attempt to find these children accommodation more suitable to their condition as soon as it is detected).

Next, the histories within the Homes of the remaining boys were reviewed, and all those who had changes in their Cottages which resulted in their having at some time experience of both kinds of care were eliminated. These changes were occasioned either by removal of the boy to another Cottage, or by changes in the staff. One other variable was eliminated by selecting no boys from mixed cottages, and all the boys in the two groups finally left were in cottages for boys only.

These screenings left a total of 41 boys, aged between 5-10 and 13-11 who had 'pure' experience of one of these methods of care. Most of these had remained with the same Cottage-parents throughout, but it was necessary to include a few who had been in Cottages with staff changes, although they remained within the one method of care. 20 boys (called the F Group) had been brought up in Cottages with one (or sometimes two) single-women, having no father-figure present, and 21 boys (the M Group) were brought up by a married couple and had a father-figure in the home.* All these children had in common a period of about 4½ years spent in the Baby Homes, where the staffing was exclusively female.

The age of transfer of individual cases from the Baby Homes is determined by a number of factors, including the activity of the child ('advanced' children being generally transferred rather sooner), and the available beds in the Cottages. Only one of these boys had a sibling, this being a twin sister admitted at the same time, but resident in another cottage.

The F-group.

The F-group consisted of 20 boys, who had been admitted to the Homes at a mean age of 16 weeks. All were illegitimate children whose mothers were unable to support them. In a few cases they were married women whose husbands were absent in the Forces, but in most cases they were girls making casual liaisons with Service men. It is of interest to note that several cases record that the mothers themselves were the issue of broken homes or illegitimate. This is a common finding with unmarried mothers, and was probably a feature of many other of these cases if the truth was known. The period of institutional care is a thing that tends to repeat itself from generation to generation.

The mean age of the F-group at approximately the mid-point of the testing programme (which extended over

a period of some eight months) was 9-1, the mean I.Q. was 83 and the mean mental age was 7-7.

The M-group.

The M-group is of similar background, all being illegitimate. This group was slightly younger, being admitted at a mean age of 14 weeks, and having a mean age of 8-5 at the mid-point of the experiment. The mean I.Q. was 84, and the mean mental age 7-2. It included 21 boys.

The MF-group.

For a number of purposes the two groups are considered together, to form the MF-group. This group had a mean admission age of 15 weeks, a mean C.A. of 8-9, a mean I.Q. of 84* and a mean M.A. of 7-4. It comprised 41 boys. The age-range (at the mid-point of the period) was 5-10 to 13-11.

* Actually the mean I.Q.'s were F-group 83.15, M-group 83.90, MF-group 83.56. The practice of quoting even mean I.Q.'s to two places of decimals seems unwarranted, except in statistical calculation.

TABLE I.

	N.	Mean age of adm.	Mean C.A.	Mean M.A.	Mean I.Q.
F-group	20	16 weeks	9-1	7-7	83
M-group	21	14 weeks	8-5	7-2	84
MF-group	41	15 weeks	8-9	7-4	84

The I.Q.'s quoted are from the Terman-Merrill Test (Stanford Revision, 1937, Form L.).

Hereditary Factors.

The information on the parents of these children is very scanty indeed. The majority were the result of wartime intimacy, and the father is often unknown or described simply as a 'soldier'. Such information as is available is not enlightening. In one case where the mother, a girl of 17, was described as too 'simple' to look after the child, the boy turns out to be of average intelligence, and indeed, about the most normal all-round child in the whole study. On the other hand, a boy with an I.Q. of 86 and a very warped personality had a mother and father who were both of rather superior intelligence, judging by the socio-economic statuses. Owing to the very meagre nature of the evidence on the inherited background of these children, speculation is

more likely to be misleading than helpful, and this factor has perforce been ignored in considering the cases.

In 27 cases one or both of the parents could be described as 'working class', which is a vague term, but the most precise justified by the occupational classifications offered (e.g. factory girl). In 4 cases the mothers were apparently almost illiterate, judging by their letters requesting the admission of the child, and several others were apparently only semi-literate. In 2 cases the mothers were aged only fifteen. In 11 cases the mothers are described as neglectful, incapable or 'simple'. In no case is it specifically mentioned that either of the parents has been certified M.D. or suffering from a psychosis.

Medical History.

The medical section of the form of application for admission (filled in by a medical practitioner) supplies little information of psychological interest, especially for young babies. No details of the pregnancy or birth are given, and it is merely a declaration that the child is free from infection and congenital disease. Except in one case of slight hydrocephaly, nothing of interest

was revealed by a study of this part of the case-histories.

History of the Child before Admission.

Taking the total combined groups, these children had an average experience of 15 weeks of life in the outside world. Here again the information available is too meagre for any useful data to be drawn from it. Many of the children were born in hostels for the unmarried mother, run by the Salvation Army and other organisations. In a few cases it can be inferred from circumstantial evidence that the mother left the hostel shortly after the confinement, the authorities of the hostel taking charge of the child and arranging the admission to the Homes, but in the majority of these cases it is not clear whether the baby was with the mother up to the time of admission. Some at least of these children were probably deprived within a few days of birth. In other cases the child was born in lodgings, where the mother was not permitted to keep the child, or was unable to look after him owing to the necessity of working. In a few other cases the mothers were married women pregnant by men other than their husbands. In several such cases it is mentioned that the husband's

forgiveness was conditional on the child being removed from the home. In a few cases the child was minded by a neighbour up to the time of admission. A number of cases give no indication where the child was actually born, or where he lived up to acceptance by the Homes.

All cases for admission require some sort of recommendation, and in most this is given by one or other of the social agencies interested in the matter, or by a minister. Most of the correspondence in this connection explains that the mother is a good girl really, but was led astray, although a few state quite plainly that she was anything but this, and quite unsuited to bringing up the child. Whilst this correspondence explains the pregnancy and the circumstances which prevent the mother from looking after the child, it gives very little information that is of value to those who wish to understand and help the child himself. In several cases the correspondence commences before the child was born, and it would be true to say that every one of the children in this study was unwanted even before he entered this world, and it would be safe to assume that his brief spell before entering the Homes contained little of the joy and loving attention that should be the right of every child.

The reading of these case-histories was a cheerless revelation of weakness and selfishness: the children who

are the subject of this thesis were born in the shadow of despair, and it is a study of human tragedy.

Only three of the children in the MF-group have ever seen or had any contact with the parents since admission, and in no case has this contact been extensive. (The blame for this lies with the parents and not the Homes).

The reader is asked to bear in mind as he goes through all the facts and figures of the following pages that they relate to children born into an unwelcoming world. Whatever else they may have inherited from their ancestors we cannot know, but we do know that from their parents they inherited despair. They are children with no past and no future. To us that have the memories of family life with all its joys, where even tears can be a prelude to fuller love, it is not easy to see life as these children see it. We can recall

> The smiles, the tears
> Of boyhood's years,
> The words of love then spoken;

and whatever the future may hold, we have these memories behind us to bring strength and inspiration. The human tragedy which is examined in the pages that follow is the tragedy of hopelessness.

Medical History.

By courtesy of the medical superintendent access was given to the medical histories of the boys. In whatever ways these children might be underprivileged, they have the benefits of exceptionally good medical care: the attention is equal to that in any expensive English public-school. They have the wholehearted care of a highly qualified paediatrician, with the facilities of an excellent hospital of some 30 beds, which are almost always empty, and specialist advice readily available. One would have to search far and wide for a more uniformly healthy population of children. The medical histories since admission to the Homes contained nothing of psychological significance, except one case of slight hydrocephalous, already mentioned, and the group can be considered exceptionally sound from the point of view of medical pathology.

Physical Maturity.

It was felt that a study of this nature could not ignore the physical maturity of the child as a variable factor, and although it was subsequently found that the information could not be used, some attempt was made to consider this matter. A fully adequate study of the question would involve an elaborate set-up including

X-ray techniques for the measurement of skeletal age, and other equipment. Actually some facilities in this direction were available, for the Homes has its own well equipped hospital, and there was available even the use of a nearby electro-encephalogram. However, in spite of these tempting facilities, it had to be decided that the time available and the limitations of a one-man project forbade useful advance along these lines at the present: this is a matter that might be taken up in the future by a research team.

One aspect of maturity that seemed quite readily estimated and particularly relevant was sexual maturity. Greulich and his collaborators (1942) have described a method of estimation which is accurate enough for many purposes, that depends on the changes in the external genitalia, the changes in the growth and distribution of hair, and other signs of an easily observable nature. On the basis of 24 signs, boys can be classified into 5 Maturity Groups, which are fully defined by these authors. Group I is the prepubertal boy, Group 2 the first signs of puberty, Groups 3 and 4 early and late adolescence respectively, and Group 5 the almost fully mature young-adult. Intermediate stages can be expressed, for example Group 3-4. All the boys in the study were examined by the author, using the criteria given by Greulich et al. and the results recorded on a form, a

form, a specimen of which is given. Space was allowed for ten examinations, with the possibility in mind that the boys might be examined over a period that would see them through several stages. This might still be done, but the limitations of time in the present project made it impossible to continue this particular feature of the study.

Of the boys in the F-group, 17 were prepubertal (Maturity Group I), 1 was Group 2, 1 was Group 2-3, and 1 Group 3.

7 boys were tall for their age (i.e. 1 inch or more above the average) 4 were average, and 9 were short (i.e. 1 inch below the mean). Only one boy was underweight for his height.

The M-group, which was rather younger than the F-group, was made up of 20 prepubertal boys (Group I), and 1 boy of Group 3.

In this group 4 boys were tall for their age, 9 boys were average, and 8 were short. 1 boy was underweight for his height.

The total MF-group is therefore made up predominately of prepubertal boys, only 4 of them being of Groups 2 or 3. None was fully adolescent.

Name ..... D. o. b.....

	I	II	III	IV	V	VI	VII	VIII	IX	X
Prepub										
1. Gr.Tt										
2. Gr.P										
3. Dy h. pubis										
4. Pigd.h.base P										
5. Diffd.Pubic h.										
6. Axil. persp.										
7. Dn u/lip										
8. Dn ext.prox.F'arm										
Lt. d/lat dist.arm										
9. Pigd h dist. legs.										
dist thighs										
10. L.dn sides face.										
11. c'anal h.										
12. mod. gr. pubic h.										
13. sh. pigd. h. axil.										
odour.										
14. voice change.										
15. sub-areol. mss.										
16. Pubic h. thighs.										
17. Th linea alba.										
18. P & Tt subadult.										
19. Th chin & u/cheek.										
20. Th u/lip.										
21. Th areolae.										
22. Th sternum.										
23. Calvities										
24. Y/adult distn Th.										
Tt. L										
R.										

	Date	C.A.	M-Group	Ht.	Wt.
I					
II					
III					
IV					
V					
VI					
VII					
VIII					
IX					
X					

Physique.

v.tall
tall
av.
short
v.short.

o'wt.
sturdy
av.
frail.
v. frail

Significant Medical History.

Health during obs.period.

V. R

Intelligence.

A fuller discussion of this question will be made in a later section. For the purposes of defining the groups, the Terman and Merrill Revision (1937) of the Stanford Binet test, Form L, was used, and unless otherwise stated, when an I.Q. is quoted it is the one obtained from this test. It is perhaps debatable whether this is a suitable test for such a population as the present one, but its wide use makes it a convenient standard of comparison.

The I.Q.s of the F-group ranged from 60 to 108, with a mean of 83. As already explained, known defectives were eliminated from the experimental group in its selection: the boy with an I.Q. of 60 was not supposed to be bright, but he was managing quite well in his rather dull group, and mental defect had not been suspected. He would not be certifiable within the legal definition of mental deficiency. Ignoring this boy the range is 69 to 108: his presence makes no appreciable difference to the average of the group.

The M-group ranged from 71 to 99, with a mean of 84, and is therefore rather less variable than the F-group.

The combined MF-group had a range of 60 to 108, with a mean of 84 and a standard deviation of 10.5.

The Masculinity and Femininity identifications of Institution Children.

As already stated the children of the present study were in two groups, the F-group being brought up in Cottages with only a cottage-mother (or in some cases two women): this group lacks a father-figure. The M-group was reared in Cottages run by a married couple, and hence having a man present who might become a father-figure.

The aim of the present part of the study is to find what difference in sex-role identification exists between the two groups. Any measure of 'masculinity-femininity' that could be applied to them might be expected to reveal a difference in the 'masculinity' scores, and the excess of the M-group over the F-group would be a measure of the success of the men in the married-couple type of Cottage in becoming father-substitutes to the boys.

For the purposes of this thesis it is proposed to define 'masculinity' as an individual's identification with the role of the male in society as ideally defined. 'Femininity' is the person's identification with the role of the female in society, as ideally defined. One or two points in this connection need to be emphasised. In the first place, 'role in society' widens the concept of 'masculinity' or 'femininity' far beyond mere sex-behaviour,

and extends to every aspect of social living and manner of thought in which differences are found or expected between male and female persons. It includes such diverse matters as dress, types of interest, aggressiveness, and a host of others. It also includes the attitude to the opposite-sex both in ordinary social dealings and in more specifically erotic situations, but these last features are only a part of the total attitude in fulfilling a male or female role. The phrase 'as ideally defined' is vague, but necessary owing to the blurring which in practice exists in the conceptions of maleness and femaleness in our society: it is not proposed to suggest which idealist is to make this definition, but the relevant chapters of Volume One will make it clear what this author has in mind. The point is that whilst an individual could enumerate quite definitely the sex-differences that are supposed to exist, his concept of the 'ideal man' or 'ideal woman', these people do not exist as clear types in real life.

A masculinity-femininity test (more conveniently known as an 'm-f' test), is therefore designed in two parts. These parts may be separated or interwoven. Use is made of material (drawings, projective material, interests, attitudes, vocabulary, etc.), which is known to elicit well-defined sex-differences, and the scoring is arranged to show whether the differences are

predominately in one direction or the other. The test is purposely designed with a clearly marked bi-modal distribution, with the male scores clustered at one mode, and the female scores at another.

In general, of course, it is expected that the person making a 'masculine' identification will be a male, biologically, and similarly a person with a 'female' identification will be female. In this case a man will score relatively highly on the 'masculinity' items of such a test, and relatively lowly on the femininity items, whilst a woman will score vice versa. Presumably a perfect test, applied to the perfect male, would yield a score of 100% on the 'masculinity' side and zero on the 'femininity' side. In practice, however, few individuals are likely to make exclusive identifications within the limits of what can be described as either male or female attributes. Also, in practice no tests are perfect. But with a reasonably valid test we will expect the average person to score high and low on the two divisions of the test, as is appropriate to that person's biological sex. Individuals scoring more or less equally on the two divisions, are presumed to have ambivalent sex-identifications, and those scoring invertedly may be presumed to have an identification with the opposite sex.

As pointed out, 'masculinity' or 'femininity' covers

a wide range of matters, and the tests of 'm-f' in use tap the observed differences in such things as interests, vocabulary, attitudes, technical knowledge, etc. These things may or may nor correlate with the person's conceptions of his or her sex-role, or with specifically sexual attitudes towards the same and the opposite sex. For this reason the so-called 'm-f' tests are not infallible diagnostic instruments for homosexuality. Indeed, some such tests have been produced which would not make a significant distinction between a male and female population, let alone distinguish a homosexual male from a heterosexual one! Other tests have been produced with a high validity (for example, that by Terman and Miles), and have shown homosexual persons to have the sort of inverted score that might be expected. The interests and attitudes to which these tests have been sensitive have correlated fairly highly with more specifically sexual attitudes, but apparently the correlation is not perfect, for in several cases known homosexuals have not scored as expected, and inversions in score have occurred in apparently normal, heterosexually inclined persons. Whilst 'm-f' tests might measure certain aspects of sex-identifications, those so far produced do not measure sexuality as such. There is, however, good reason to

suppose that a person showing an indefinite or inverted sex-identification as measured by such a test is likely to be confused or inverted in the specifically sexual attitudes as well as these more general ones.

Whilst several 'm-f' scales have been produced and standardised, only one has appeared in Britain. This test, by Slater, is a differential vocabulary scale, and it involves the definition of technical terms with a definite bias in their interest to the sexes. Some are terms peculiar to dressmaking and other feminine activities, others to engineering and similar male spheres. The test has been used with older children, and norms are available from 13 years upwards, but unfortunately the test is quite outwith the vocabulary range of the children in this study, few of whom would be at all likely to define even one of the words (see, for corroboration, the scores on the Binet vocabulary), let alone gain a valid differential score.

It has therefore been necessary to attempt to devise a scale simple enough to be within the limited capacities of these children, and yet sensitive to the sex-differences which it is desired to measure.

In the present survey the following tests were applied specifically to measure 'm-f' :

1. An 'm-f' test designed for the purpose.

2. The Goodenough 'Draw-a-Man' test.

Additional clues were sought in other available material.

The 'm-f' Test.

This test was in the form of a battery, consisting of four items.

i. A picture memory test: the basic assumption of this item is more or less novel. Twelve pictures were selected which would be expected to show sex-differences in the interest they would arouse. These were mostly advertisements. The child was told,

> "I am going to show you some pictures, and I want you to look at them very carefully. I shall ask you about them later on."

To ease exposure the pictures were pasted in a large scrapbook and displayed one at a time by turning the leaves: each was exposed for ten seconds (timed by stop-watch). Immediately the twelfth was shown the experimenter said,

"Now we'll have another quick look through them."

The pictures were then re-exposed for two seconds each. The turning was done by the experimenter. Immediately the child was led to another table for the second item. The other three items (ii, iii and iv) were given, and

then the examiner said,

"You remember the pictures I showed you in that book? I want you to tell me all you can remember about them. Just tell me anything you remember."

As this was said, the book in question was indicated to the child, to avoid his confusing what is asked for with the pictures in Item iii. The memories were noted, the child being encouraged, but not 'pumped' for information, as the spontaneous memories only are of interest to the purpose.

The theory underlying this item is that the child would tend to recall the items which interested him most, and that these memories would therefore present a clue to his interests. The time interval, filled with the other items, was about 6 or 7 minutes, but naturally varied a little according to the time taken on the others.

The pictures were as follows:

1. A full double page from a weekly illustrated magazine showing coloured photographs of the interior of Buckingham Palace. One large picture stretches the full width (about 20 inches by 8) and showed the Throne Room. Four smaller pictures below show other features of the interior of the palace. There is a caption in large type 'Inside the Palace', and descriptive captions were beneath each photograph.

2. Is headed in prominent type 'Proud guardians of the desert', and is also in colour. It shows three photographs of the modern Arab army, a large picture to the left showing five soldiers firing rifles from the backs of camels on which they are mounted. Another shows a platoon mounted on white horses, each carrying a pennant, and the third shows soldiers driving in jeeps and armoured cars.

3. Is an advertisement for 'Pin-up'. It is in colour, and shows a most attractive brunette holding two pink carnations to her cheek. There are 70 or 80 words of description of the home perm. set, but the picture dominates the attention.

4. This shows two sports cars (photographs) and four small line drawings. The cars dominate the page. It advertises the David Brown Group of companies, and bears some legend in small type.

5. Is an advertisement for the 'English Electric' refrigerator. Five coloured pictures of a young housewife placing different sorts of foods in the various compartments are shown. The words 'Fresh' at the top and 'English Electric' at the bottom dominate the printed matter.

6. Is a page from a Bassett-Lowke catalogue. A photograph of the model of the L.M.S. Pacific locomotive "Duchess of Montrose" centres the page, and there is also descriptive matter. This is in half-tones.

7. Illustrates in colour a cheval set for a lady's dressing table, it has a blue background with gaily coloured flowers embroidered on it. Printed matter is insiginficant. It is a full double page from a women's weekly magazine.

8. Is an advertisement from the "Yachting World" magazine, and advertises Gleniffer marine diesel engines. A picture of a 50-50 yacht, steaming under power with sails stowed, dominates the page. There is also a picture of a diesel engine. The pictures are half-tone photographs.

9. This is a full double-page from a women's weekly magazine, and shows in line drawing on a bright yellow background a number of girls and young women dressed in various sorts of beach attire. Apart from the caption 'Fashions in the Sun' the printed matter is insignificant.

10. Gives a coloured plate with a general view of a motor-show, with a dozen or more modern cars in the fore and mid-ground and a large number of men and women inspecting them.

11. Is a gaily coloured advertisement for Sunetta fabrics. This word is emblazoned in bold type across a sea-scape, and beneath are eight squares of material with flower-design patterns.

12. Is another page from a Bassett-Lowke catalogue, and contains three photographs, one illustrating a model of the P & O steamship "Strathnaver", another a model of the new civic centre for Coventry, and the third a boy manipulating a model railway. It is in half-tone.

The material was purposely chosen to be rather complex, although of a nature in which the salient features could be seen rapidly. Apart from the key words in bold type, the time of exposure did not permit reading of the printed material. The boys' material is perhaps slightly less striking in so far as several of the pictures were in half-tone and all of the girls' pictures are in colour.

The purpose of the test is not to measure the accuracy of perception or the detail of the memory, but merely to discover which pictures were noticed. A score was recorded for every memory that could identify a picture. For example, No. 5 was frequently described as a woman cooking, the refrigerator being mistaken for an oven, but there was no doubt which picture was intended. When a memory was too indefinite, the child was asked, after all the memories had been secured, to identify the picture he had in mind. This was most often necessary to distinguish 7 and 11, which were both described sometimes as 'patterns', and 4 and 10, 8 and 12, which both contain common elements. Actually from the point of view of the 'm-f' scores, the distinction of these pairs is not important, as either scores 'm' or 'f' according to the particular case, but the

information was needed for other purposes. The 'm' and 'f' pictures alternate, the latter being the odd numbers and the former the even ones. As a matter of interest, no cases were noted in which a child appeared to be using idetic imagery in recalling the pictures.

ii. Toy choice: immediately the child had been shown the pictures for the first part of item i he was led to another table on which were displayed a number of toys, laid out in standard order (see Figure 1). The toys were as follows:

1. A set of dolls' furniture.
2. A female doll.
3. Toy bathroom set, with small doll in the bath.
4. A doll's cradle, painted pink.
5. Toy pastry set.
6. A necklace.
7. A small toy iron.
8. A gas-stove with pots.
9. Shopping-bag with zip fastener.
10. A small white lead dog.
11. A model gun.
12. A clockwork dumper truck.
13. Farm tractor, with hay-rake and roller.
14. Jeep with trailer.
15. A small racing car.
16. Two toy soldiers.
17. A coal-lorry.
18. Vogue construction set (a set like Meccano).

The instructions were,

> "Suppose you were going to a toyshop to buy some toys for yourself, tell me which you would choose."

The child was permitted up to ten choices, of which the first eight were used for scoring. If a child stopped



Figure 1. Toy-choice lay-out.

choosing, he was encouraged to go on, but not forced to do so if unwilling. He was asked just to point to or name his choice.

iii. Picture choice: 20 postcard-size coloured reproductions of pictures by recent masters were chosen, as follows:

A1. Marc, "Red Horses". A lively picture of three horses on a hill.

A2. Caillebotte, "La Marne". A stretch of river with two or three boats moored.

B1. Cezanne, "Quais de la Seine". A river scene with a grab dredger and men loading a wagon in the foreground.

B2. Van Gogh, "Olive Trees". An orchard scene.

C1. Bastien-Lepage, "Pas Meche". A ragged barge-boy with a whip and a trumpet slung across his back.

C2. John, "Caitlin", a head and shoulders portrait of a young women.

D1. Frith, "Derby Day", a picture crowded with people.

D2. Monet, "Bridge of Argenteuil". A water scene with yachts in the foreground and an iron bridge in the mid-ground.

E1. Cadell, Iona, West Coast. A sea and mountain scene with greens and 'sunny' colours predominating.

E2. Peploe, "Ben More from Iona", a sea and mountain scene, predominantly in deep blues.

F1. Peploe, "Iona, White Strand of the Monks". A seashore scene with light sand contrasting with deep blues of the mountains across the water.

F2. Cadell, "Iona, From North End". A shore scene with delicate greens in the near-water merging into deeper blues in the distance.

G1. Van Gogh, "Rowing boats at Auvers". A typical mass of shimmering colour, with water and skiffs in the foreground.

G2. Van Gogh, "Still life with Onions". A table-top with various objects of a domestic nature.

H1. Raeburn, "Mrs. Scott Moncrieff". A head and trunk portrait.

H2. Raeburn, "The MacDonald Children". A lively painting of three young boys in 18th century dress.

I1. Renoir, "Les Parapluies". A crowded scene with greys predominating, in which women with umbrellas are most conspicuous. Costume late 19th century.

I2. De Hooch, "Courtyard with an arbour at Delft". A Scene with four people, including a small girl, in the Dutch style.

J1. Von Lenbach, "The Shepherd Boy", a barefoot boy lying on his back in the sun.

J2. Brussel, "Flowerpiece". An elaborate still-life of a vase of many flowers.

The cards were set our in pairs on a table, the pairing being arranged so that each contained one card likely to interest a boy and one of interest to girls. It was expected that colour as well as subject would influence the choices. The E and F pairs, for example, are very similar in style, and illustrate the same island scenes, but those by Peploe show rather massive and darker 'masculine' colours, whilst Cadell uses brighter and more delicate 'feminine' colours. All the pictures are of high artistic merit.

The standard arrangement was as follows:

A1	A2	F1	F2
B1	B2	G1	G2
C1	C2	H1	H2
D1	D2	I1	I2
E1	E2	J1	J2

The shorter children were stood on a chair to enable them to command a full view of the cards.

The child was shown this collection, and asked, "Which do you like best? Which is the nicest picture?" Five choices were secured.

iv. Book choice.

Six books in standard format were selected from the Puffin Picture Book series (Penguin Books, Ltd.). They were:

1. "Electric Models from odds and ends" (No. 83 in the Puffin series). The cover illustrates a model railway signal, electric motor, a telephone and a buzzer. A pair of hands (which might be either a boy's or a girl's) is manipulating the telephone. Inside are instructions for making these models.

2. "Pottery and its Making" (No. 71). The cover illustrates a potter's wheel, and the arms of a potter fashioning a vessel on the wheel: the sex of the potter is indefinite, as only the arms and shoulders are visible. Inside is illustrated the pottery process, with examples of many sorts of work.

3. "Sailing Ships" (No. 88). The cover illustrates a full-rigged ship under all plain sail, and inside many sorts of rigs, both square-rigged and fore-and-aft, are illustrated and described. (An error on page 16 in describing a ship as a barque was not noticed by any child).

4. "A thread of Cotton" (No. not quoted). The cover shows the cotton plant, and Indian girls plucking the cotton. The text describes the history and the modern processes of the industry.

5. "Locomotives" (No. not quoted). The cover shows the Southern Railway 4-6-2 locomotive 'Channel Packet' and the book illustrates and describes many sorts of locomotives, steam, electric and diesel powered.

6. "Wild Flowers" (No. 81). The cover shows a marsh marigold plant, and within a number of common wild plants are illustrated.

*In Volume One it was suggested that virtual father-deprivation is common in our culture, and even in the (statistically) normal family "fathering" may be lacking. Strictly speaking, therefore, comparison is not being made between a "fully fathered" control group and "unfathered" experimental groups. The control group consists of children having normal family life, with the degree of "fathering" that gives...possibly less than it might be, but still present. These are compared with children in the experimental group whose experience of "fathering" is quite different both in degree and quality.

Furthermore, the vital comparison is between the boys of the experimental group and girls (who are less influenced by paternal deprivation in terms of the homolateral theory): the proposition under consideration is that boys with the types of institution experience specified will differ in the degree to which they resemble girls in this particular measure. Comparison with normal boys is a corrollary.

In making up the control groups, the teachers were asked not to include any children known to have absent fathers or otherwise abnormal home-situations.

The covers and many of the drawings are attractively coloured in all these books.

The subject was shown the books (displayed in the above order) and asked,

"Which is the most interesting book? Which one would you like to read?". Inspection was permitted.

One choice was taken (where children gave two or more, the first was taken for scoring purposes).

As already stated, the recall of memories of item i were asked for and recorded immediately after item iv.

In all cases the children were taken through this procedure alone. The items were displayed on separate tables, and the child was led from table to table for each item. The total time varied, but averaged about 9 or 10 minutes.

In the nature of the test (which is likely to be proved to have a rather low validity), it will be more useful in comparing groups than for individual diagnosis. In this study it is put only to the former use.

'm-f' Test, Control Group.*

Since the assumption to be tested is that the F-group shows an 'm-f' score which is more like that of girls than does the M-group, the main control group chosen was of girls. A smaller group of boys was also used, in order to verify the trends.

* To amplify this point, between the ages of 8 and 11 in the control group there was little tendency for the characteristic m-f responses of boys and girls to change with age. The younger children tended to have fewer recalls in the Memories item, but the sex-differences were maintained. An artificial change in the Toy Choice item was found among the older girls because they found the choice less interesting than the younger ones: in most cases where this influenced the results it caused the child to decline making the full number of choices asked, though a few did choose boys' toys with the comment that there was nothing else they wanted among the girls' toys. No similar trend was found among the older boys.

The Sears and other workers in America who have used similar techniques with younger children report sex-differences of the kind found here as early as the third year, and these differenses appear to be well established in the fourth and fifth years.

In order to confirm the matter, and to bring the control down to the ages of the younger children in the experimental groups, six and seven-year old children were added to the control group. As the Experimenter had left the country, it was not possible to use Scottish children for this purpose, and this additional group was made up of English-speaking white South African children, mostly of British descent. This group consisted of a total of 62 children, 18 boys, 14 girls in their first school year ranging from 5-9 to 6-8, with an average of 6-3, and 14 boys, 16 girls between 7-0 and 7-11, with a mean of 7-4. This group also differed from the Scottish controls in belonging mostly to a rather superior socio-economic strata, but it is of interest to note that in spite of these differences, the same clearly marked sex-differences as before were found here. It appears that we may regard these sex-differences as a universal phenomenon of normally-reared children of school age in western culture.

As an example of the manner in which the technique does reflect features of the child's personality may be quoted the case of a girl of 6-6 who gave a typically masculine response, including an exclusive choice of boy's toys. Inquiry revealed that she was the youngest of three girls: both parents had hoped for a boy, and had treated this latest 'disappointment' as a boy to some extent. She spent an unusual amount of time with her father, to whom she appeared more attached than to the mother. She was described as a 'tomboy' by her teachers, who observed that she played more with boys than girls. Asked to 'draw-a-person' she drew a boy, which is unusual for girls of her age. This girl's identification with the male role indicated by the test is in fact confirmed by external observation.

Preliminary experiments had shown that whilst intelligence influenced parts of the test (for example, the quality of memories on the recall item) it had no appreciable effect upon the 'm-f' score itself. Partly in order to avoid the difficulties involved in having to select and test a matched group, and partly with a view to the future use of the test with other groups of children, a control group of normal primary school children was used in preference to a matched group. In view of the negligible advantage to be obtained from matching, the method adopted appears quite defensible.

Within the range covered by the experiment, age is also not a major variable in the test as a whole.*

The children were selected by taking all the girls from five classes of a primary school, a total of 66. The average I.Q. of these classes, including the boys, (according to Moray House group-tests) was 99 and the range 71 to 117. The school serves a working-class and residential district in a small Midlothian town, and apart from the absence of professional representation covers a fairly general population.*

* The writer is indebted to Mr. A. Scott Brockie, Director of Education for the County of Midlothian, and Mr. W. Bird, Headmaster of Fisherrow Primary School, for these facilities.

The girls' group consisted of 22 eight-year-old, 17 nine-year-old and 27 ten-year-old children, the average age being 9-6.

The boys' group consisted of 28 boys aged 8-1 to 10-7 with a mean age of 8-11. 19 of these were 8 year-old children. They were taken at random from the same classes as the girls.

The test was administered individually under the standard conditions described earlier.

Results of the 'm-f' Test.

Item i. Memories.

This item involves a difficulty in that irrelevant factors (especially memory) enter the situation. This was reduced to the minimum by taking no account of the quality of recall, any indication that a child had remembered a particular picture, however dimly, being accepted. The responses were recorded verbatim (this was sometimes useful because a child remembered some minor detail that the examiner himself had overlooked, and might otherwise have rejected the response). The important factor is not the total number of pictures recalled, but the ratio between 'm' and 'f' pictures. The scores were therefore divided into three classes:

m in which recall of 'masculine' pictures outnumbered 'feminine' ones.

mf where equal numbers of each were recalled.

f in which the 'feminine' recalls outnumbered the 'masculine'.

The scores of the control groups were as follows:

Recalls by control groups.

	m	mf	f	Total
Girls	19	18	29	66
Boys	17	6	5	28

Applying the chi-square test, the difference between the boys and girls of the control groups is significant at the .01 level. The expected trends are therefore found, girls tending to remember more feminine pictures and boys more masculine ones.

The corresponding figures for the M and F-groups are as follows:

Recalls by M and F groups.

	m	mf	f	Total
M-group	11	4	6	21
F-group	8	6	6	20

Whilst the M-group shows a more 'masculine' score than the F-group, the chi-square test shows no significant difference between the two.

Thus the control groups do show a statistically

reliable difference in their manner of response to this item, girls and boys showing a distinct tendency to recall different items. The F-group is very nearly random in its responses, the distribution of scores being almost exactly what one might expect by chance. Although more like normal boys in its responses, the M-group also differs significantly from the normal boys. To put the argument another way, there is something (which may justifiably be called 'masculinity') which causes normal boys not to react by chance, and also to react differently in this situation from normal girls: the F-group apparently lacks this biasing factor, and the M-group has not got it sufficiently strongly to become identical with the normal boys.

Item ii. Toy choice.

This was the most satisfactory item of the battery, in so far as it gave a very highly significant differentiation between boys and girls in the control groups.

In the control groups not all the children made the full number of choices permitted. When a child stopped he was invited to make other selections, but in some cases a child stated that there was nothing else he would choose (one girl said that she did not like boys' toys, and did not want any other of the girls' ones). In these circumstances it would be damaging to the purpose of the test to exert any pressure to choose. Whether or not this reflects

a sort of 'party manners' is difficult to say.

The choices of the two groups were as follows:

	Total of choices.	'm' choices	'f' choices
Girls	476	22 (4.6%)	454 (95.4%)
Boys	187	177 (94.8%)	10 (5.2%)

In several cases a child made an opposite-sex choice with the remark that it was to give to a brother or sister, and had inquiry been made a number of 'wrong' choices might have been attributed to this cause. It is obvious that the toy choices of children at these ages show a very marked sex-difference. There was some indication that the particular toys used were approaching the limits of their acceptability to the older girls, and most of the children who declined to make the full number of choices were 10 year-old girls: the test as it stands might prove to be of reduced usefulness above this age.

Fortunately in the MF-group only one child failed to make the full number of choices (the reason for this difference might be interesting, if it were known) otherwise some difficulties would have been encountered in statistical treatment. This boy was F20, who chose 3m 4f. To obviate difficulties his choice was scored as 4m 4f: this increases rather than reduces the statistical validity of any difference between the groups. The choices

of the two groups are then as below:

	Total of choices.	'm' choices	'f' choices
F-group	160	69 (40.8%)	91 (59.2%)
M-group	168	87 (51.8%)	81 (48.2%)

The difference between the percentages of 'm' choices for the two groups is twice its standard error, and is therefore just significant. It will be noted that the scores of the M-group on 'm' and 'f' are more or less equal, that is, they approximate to random expectation, and we cannot assume that any selective factor is operative. Whilst the bias of both 'm' and 'f' factors is apparently absent from the M-group in this item, the F-group appears to be influenced by an 'f' factor, and we can say with moderate assurance that the F-group responds more like girls than the M-group, the latter being neutral.

Item iii. Picture choice.

On the whole this item proved unsatisfactory, and except in one picture there was no marked sex-differences in the choices. A notable exception was J2 "Flowerpiece" which received the following choices:

Group	Proportion of group choosing	% of total choices	rank in popularity.
Control girls	62%	12.5%	1st
Control boys	17%	3.6%	11th
F-group	60%	12.0%	1st
M-group	24%	4.9%	10th

The most popular of the control boys' choices was D2, but this was chosen almost as often by the girls, and was 3rd in popularity with them.

It will be noted that in the only picture that showed a marked sex-difference in popularity, the boys of the F-group chose almost exactly like the girls, whereas the choices of the M-group approximated closely to those of the normal boys.

Whilst, with the exception mentioned, 'm' and 'f' factors did not seem to exert any noticeable effects upon the choices in this item, some other selective factors were at work, as some pictures were chosen more often than others, and some were not chosen at all. These selective factors are irrelevant to sex.

Item iv. Book choice.

The choices of books on this item were as follows:

	'm'	'f'	Total
Control girls	21.2%	78.8%	66
Control boys	89.2%	10.8%	28
F-group	90.0%	10.0%	20
M-group	80.8%	19.2%	21

This item appears to give a reliable distinction between boys and girls, but for some reason the choices of the experimental groups approximate much more closely to those of normal boys than on any of the other items. Indeed, the F-group has an almost perfect tally with the control boys, whereas the M-group agrees less closely. On this item the MF-group made more typically boyish choices, but there is no obvious reason why they should do so in this and not in the others.

The Draw-a-Man Test.

This test is discussed in some detail in a later section, and for the present argument it is necessary to anticipate only certain details of this section.

Two methods of scoring for 'm-f' have been suggested in the literature. Geil has given certain criteria of femininity in drawings by males, and has applied these to drawings by adult male homosexuals. For his groups the scoring criteria evidently have some value, but they proved to be inapplicable to the present group, owing to



Figure 2. An F2 drawing



Figure 3. An F1 drawing.

These two drawings illustrate Geil's criteria of effeminacy in drawings of a man. Figure 2 was by a delinquent boy aged 16, and Figure 3 by a delinquent boy of 14. The originals were drawn on white paper in pencil. (The 'dirty' background is an artifact of the manner of reproduction). Some of the more minute details, especially in the faces, are obscured in these photographs.

The author is indebted to Robert H. Edgar, Senior Probation Officer, Edinburgh, for these drawings.

the primitive nature of their drawings. Figure 2 shows a drawing by a delinquent boy aged 16 (not a member of the present group) which has definite feminine characteristics according to the criteria given by Geil (see page 75). This boy was reported by the probation officer as effeminate. This drawing scores F2 (moderate femininity) by Geil's standards. The posture, mouth and accentuated eyes and eyebrows are particular features of this drawing. Figure 3 shows an F1 drawing (weakly effeminate), by a delinquent boy of 14 years. The curves of the shoulders, small feet, the eye and mouth details, are the characters of this drawing upon which the assessment is based. Figure 4 shows a drawing by a boy from the F-group, aged 8-2. Figure 5 is that of a boy from the same group aged 8-4. Figures 6 and 7 are from the M-group, by boys aged 9-9 and 10-8 respectively. It will be seen that all these drawings, which are typical of the institution boys, are too primitive to be scored by the criteria given. Altogether 30 of the 41 drawings were of this nature, and the remaining 11 drawings, though less starkly simple, were still too deficient in detail to be reliably scored. It is apparent that Geil's criteria are of value only with more mature and sophisticated subjects.

Goodenough has described certain sex-differences in the drawings of boys and girls, and these are discussed



Figure 4.



Figure 5.

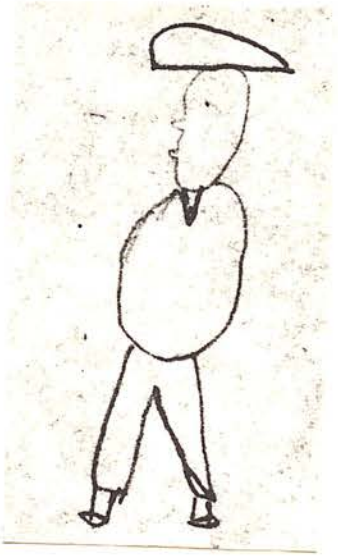


Figure 6.

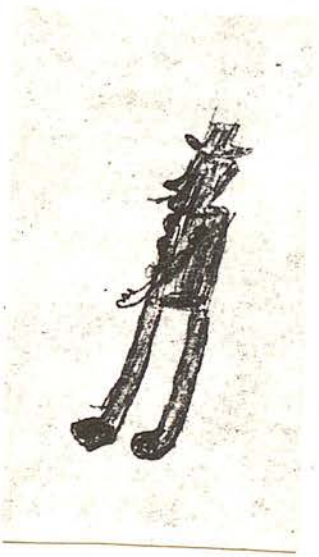


Figure 7.

in detail in the later section (see page 79ff). Again, owing to the primitive nature of the drawings, it was not possible to score many of the drawings for the criteria quoted. Based on Goodenough's findings, a scoring system was worked out whereby a drawing could be scored 0 to 26 'masculine' and 0 to 26 'feminine'. It was hoped thereby to be able to give a ratio-rating to each drawing, on which the theoretically 'perfect masculine' drawing would score m26:f0, and the 'perfect feminine' drawing m0:f26, and others intermediately. However, 24 of the 41 drawings scored m0:f0, that is, they were too simple and deficient in detail to come onto the scale at all. In the M-group, 16 of the drawings were too primitive to score, and the remaining 5 scored as below. Thus none of the M-group had a feminine score. In the F-group, only 8 scored m0:f0 (it will be recalled in this connection that this group contained more of the older boys, and it was these that contributed the more detailed drawings). The scores were as follows for those coming onto the scale:

m-f scores M-group	
m	f
4	0
2	0
12	0
4	0
4	0

m-f scores F-group	
m	f
4	2
0	2
6	0
6	0
6	0
4	0
0	2
0	2
0	4
0	2
2	2
4	0

It is a little difficult to know how to interpret this finding. On the face of it they seem to confirm the hypothesis that the F-group would produce a higher feminine score than the M-group, but the numbers are too few for statistical treatment. As mentioned in a later section (see page 81) the scale probably under-estimates the feminine characters of the drawings, and the 'femininity' of these drawings is possibly more marked than indicated by these results.

A difficulty arises, however, from the fact that the nature of the scoring does not make it certain that the scale is uniformly graded, that is, a score of say m 12 is not necessarily twice as masculine as a score of m6, although the attempt has been made to weight the scores according to the frequency with which they are associated with a given sex. Those items occuring most often in boys and least often in girls are most heavily weighted 'm', and vice versa, but it does not necessarily follow that these items correlate most highly with masculine or feminine psychosexuality. The question also arises as to whether a score of m4 : f2 is to be regarded as equally masculine as a score of m2 : f0, that is, whether m and f are equal but opposite. Another fact that enters to complicate interpretation is that 5 of the F-group also scored mX : f0. The mean m score of the 5 members of the M-group

that had a score, was m5.2, and the mean m score of the 5 of the F-group scoring on m but zero on f, was also m5.2 In view of these queries, which would require a much more exhaustive study of the factors involved to be resolved, it is not possible to make a watertight argument out of the data available.

However, assuming that the 5 m-scores in the F-group cancel out the m-score of the M-group, the fact still remains that the M-group had no f-score, whereas the F-group had. (The mean F-score of the 12 members of this group which scored above m0 : f0 at all, irrespective of its nature, is f1.34). Because of the reasons mentioned above, we cannot be certain of the matter, but these results do suggest that certain of the F-group are more effeminate than the general run of members in the M-group, and therefore that the group as a whole tends to be more effeminate (in terms of this particular measure) than the M-group.

Discussion of results.

The first hypothesis to be examined is that the boys of the F-group, lacking a father-substitute's influence, would respond in a more effeminate manner (i.e. more like girls) than boys of the M-group.



Whilst in certain instances this was the case, the F-group giving responses that were typical of the girls in the control group, on the whole it would be more accurate to say that the responses of the F-group were typical of normal boys. There is a factor, which may be called 'masculinity', which causes normal boys to give instead of random responses, responses with a definite bias. There is an opposite factor, 'femininity', which prevents normal girls from making random responses also, and which gives their responses a marked bias differing from that of normal boys.

The responses of the F-group to Item i (Memories) are clearly random, that is, neither the 'm' nor the 'f' bias is operative. The responses of the M-group show some indications that the 'm' factor is weakly present, but it is not strong enough to bring this group into equity with the normal boys.

In Item ii (Toy Choice) the M-group makes more or less random responses, whilst the F-group shows a fairly well defined 'f' bias, though it is not strong enough to bring the group into line with the girls.

In Item iii (Picture Choice) the 'm' and 'f' factors were apparently not at work, normal boys and girls giving much the same responses, except in the case of one picture, which was definitely much preferred by girls and little

preferred by normal boys. Apparently an 'f' factor influenced the choices of the girls, and this factor was also shared by the F-group. The M-group responded like normal boys.

In Item iv the 'm' and 'f' factors appeared operative, and the 'm' factor was shared by both the M and F-groups to much the same extent as normal boys: indeed the F-group had a superiority (statistically insignificant) over the M-group.

The drawings of the MF-group are scarcely to be scored for 'm' and 'f' factors, but there are some indications that the F-group tends to show the influence of 'f' factors more than the M-group.

On the whole, neither the M-group nor the F-group, appears to share the sex-identifications of normal boys, although the M-group does tend somewhat to show more typically masculine responses than the F-group. In the former, the 'm' factors are present, though not so strongly as in normal boys: the latter is more lacking in this regard, and to some extent shares the 'f' factors with the girls.

Whilst the data of this experiment do give hints that the F-group is in fact more effeminate than the M-group, perhaps the more interesting result is that both the M and the F groups give results that are not typical of normal boys. In most of the cases where a clear difference

was found between boys and girls, the institution children responded in a more or less neutral fashion, showing, as it were, characteristics of both sexes. The differences between the boys of the combined MF-group and the control boys were much more striking than the differences between the M-group and the F-group.

These observations are quite readily explained in terms of the frame of reference constructed in Volume One. It was stated there that the boy acquires the 'masculinity' features of his development principally from the father (or from a father-substitute), and that the optimum conditions for this development are a close and intimate relationship with this man from an early age. The best results are obtained when the father begins to enter the child's life in a positive fashion at the time of weaning, for it is then that the shift from the mother as primary adult figure in the boy's life does (or should) begin. This is the time when the first steps towards the shift are most readily taken, and it is less easily mediated at later stages.

The children of this study have all been reared for almost the whole of the first five years in the Baby Homes, with all female staffs and very little contact with men at all, certainly none in a father-substitute capacity. They have therefore passed well

beyond the optimum period for the introduction of a 'father' into their lives. Such parental-substitute identifications that they may have made will be with mother-figures, and if placed in a married-couple's Cottage they are handicapped in making a real identification with the cottage-father. Not only is this man a stranger to him, but men as a whole are people with which he has had little contact. Instead of growing up with a 'father' and growing into the concepts that he embodies (notably masculinity as distinct from femininity), the child quite suddenly finds himself in the presence of this person with no conceptions at all of his distinctive role. A very important (though complex) idea that the young boy learns in a normal family situation is one that equates himself in certain ways with his father and distinguishes himself in these ways from his mother. By the age of five the normal boy has progressed quite far in distinguishing 'masculinity' from 'femininity' and identifying himself with the former. Whilst the children of this study are doubtless aware of men as distinct from women, they have gone very little of the way towards distinguishing masculine from feminine. It appears that they remain backward in this respect.

When the child does reach a Cottage with a father-

figure he is not only ill-prepared for making an identification with him, but the circumstances of the Cottage are not entirely propitious either. He has nineteen or more competitors for the time and attention of the cottage-father, and his 'fathering' must necessarily be diluted. This is an unhappy situation, since the boy needs a concentration rather than a dilution. There is a tendency for the youngest child to receive rather more attention than the others, so for a time he may receive more help, but the results of this study suggest that it is insufficient, and that on the whole this diluted 'fathering' is not as effective as could be desired.

A further factor that militates against the boy's developing masculinity is the 'mothering myth' that was discussed in Volume One. In the Homes women heavily outnumber men on the staff, and the boy is reared in a culture which emphasises the feminine views of child care even more than the general culture of the outside world.

The spontaneous play-groups among these children show just the same sex dichotomy that is observed in other children's groups, boys and girls occupying themselves for the most part quite independently. Like certain of the groups mentioned in the relevant chapters

of Volume One, these children are thrown rather more upon the peer-culture than normal family children, who have more contact through their parents with the adult (peer-)culture. This study supports the contention made in those chapters that the peer-culture is unable successfully to impart the concepts of masculinity that come principally from the father, and a child cannot adequately derive from the peer-culture what he lacks from the father.

As a general conclusion from this experiment we might state that boys reared under the conditions outlined here have a markedly less definite masculine identification than boys reared under normal family conditions. There are some indications that the presence of a father-substitute does alleviate the matter, but that under the conditions of this particular institution his influence is limited.

It should be emphasised that in spite of its shortcomings in this matter, conditions in this particular Home are actually superior to most, for the majority of children's Homes make no provision at all for the boy to have a father-substitute. This is a point in which the present system of care for the deprived child is seriously lacking, and these Homes are actually ahead of general practice in this regard.

The present work has not only developed new theoretical

concepts, but has also had to attempt the design of new tools adapted to these concepts: there has been a double uncertainty to cope with, in regard to the theory itself and the techniques used in testing it. Further advance will necessitate the invention of more accurate methods of detecting and measuring the 'm-f' factors that are pre-supposed by the theory. There is a very good theoretical reason to suppose that such factors do exist in children (their existence in adults can be regarded as certain), and the work has produced a crude method of experiment that seems more or less sensitive to them.

The Goodenough Draw-a-Man Test.

According to Louttit and Brown, this test has gained considerably in popularity as a psychometric instrument in clinical work over the last decade, and in their survey (in America) it ranked third in the list of most frequently used tests, (the Terman-Merrill and Wechsler-Bellevue being first and second).

Goodenough (1926) has discussed in detail the rationale of the test, and in later publications (1928 and 1950) has summarised the subsequent literature on children's drawing, including the D/M test. The reader is referred to these sources for fuller discussion of the test, and only those points of particular interest to the present study are dwelt upon here.

Goodenough's original norms were given tentatively (though based on a fairly adequate population); but no additional normative studies have been found in the literature (except for that by Williams, quoted below, which was not specifically a re-standardisation), and it is presumed from the considerable use made of the test that the original norms have proved satisfactory. It is important to note that the original standardisation used children aged 4-10 years, and the norms above 10 years were obtained by extrapolation. The validity of the norms

for older children cannot therefore be taken for granted. M.L. Williams has presented a study, based on 5627 children, of the mental growth at different ages as shown by the Goodenough Test. She found that accelerated, normal and retarded children all had curves of similar shape, but those children who were accelerated in school progress showed a higher curve than the normal, whereas the retarded children were lower. The curve is negatively accelerated, showing greatest development in the 5th and 6th years (the lowest studied), with a falling off up to 12.5 years, the highest in her study. The Goodenough norms, when graphed, show uniform development (see Figure 1): the higher age-norms were obtained by uniform extrapolation beyond the tenth year, and are probably a little too high for these years. The negative acceleration is not sharp, however, and Williams' results suggest that although too high, the discrepancy is not great, at least up to 12½ years.

Burt (1921) had anticipated the Goodenough scale in his own treatment of children's drawings of men, and he also notes what he calls 'an age of repression', commonly at about 13 years, when "progress is laborious and slow, and the confidence and keenness of the drawingsis lacking." He states further that whereas in younger children the

human figure is quite the most popular subject in free drawing, at this stage it appears rather unpopular, geometric designs being commonest. Burt regards this phase as part of the child's natural development. Given the opportunity, there is an'artistic revival' in early adolescence which leads to more mature expression, and true aesthetic appreciation.

The validity and reliability of the test has been the subject of a number of studies (see Goodenough 1950). Goodenough herself has reported correlations of .70 to .85 with the 1916 Stanford Revision, but other studies show lower correlations with Binet-type intelligence tests. Because the correlation with the usual tests of verbal intelligence is not high, it appears that it does not measure intelligence, in its more generally accepted definitions, very well: it would therefore appear better to speak of Achievement Quotients rather than Intelligence Quotients in connection with this test, and in the ensuing discussion D.A.Q's (Drawing Achievement Quotients) are used. Whilst performance on the D/M test is evidently linked with intelligence, it is not synonymous with it. The reliability of the test as measured by self-correlation appears also to be only moderate.

Several studies of abnormal groups show a rather

marked lowering of the D.A.Q. compared with the I.Q. on the Terman and Merrill or similar tests. Bender (1940) for example, reports a markedly lower D/M score compared with I.Q. in post-encephalitic children. Hinrichs, comparing delinquents of 9-18 years with control groups, found that the delinquents, but not the controls, showed a lowering of D/M scores compared with I.Q's. The delinquents showed more incongruities, greater juvenility in subject matter, and more stereotyped drawings with fewer indications of activity than the control groups.

Brill studied the scores of groups of mentally defective males (aged 13-32 years, Binet M.A. 6 to 15-7) in a State institution. One group was of stable defectives who adjusted to institution life, the other of maladjusted individuals. He found a difference between the two groups significant at the 1% level, the maladjusted group having lower scores. The overlap between the two groups was large, however. A D/M M.A. in excess of the Binet M.A. was rarer in the maladjusted then in the adjusted group. 72% of the adjusted group scored higher (an average of 2 years 5 mos.) on the Goodenough than on the Binet, whilst only 44% of the maladjusted group did so, the average excess being 1 year 7 months.

Springer examined the drawing of intellectually normal children, classified as adjusted or maladjusted,

to discover whether the D/M scale differentiated the two groups. The ages ranged from 6 to 12, both boys and girls. A behaviour rating scale was used to select the two groups, and there was a significant difference in this respect. No difference in the means of these two groups were found for the drawing test, however, and the test did not differentiate adjusted or maladjusted in the total scores, although on certain items differences were noted. This result could be due to inadequacies in the method of selecting the two groups rather than to inadequacy of the D/M test as a differential instrument, and the experiment is inconclusive.

Berrien examined the drawings of 52 children diagnosed as having post-encephalitic psychological traumata, psychopathic personality or borderline mental deficiency. The most interesting conclusion to the present study was that a combination of primitive and mature characteristics was found most often in the more seriously emotionally disturbed children. All groups showed a marked depression of the D.A.Q., the post-encephalitics the greatest. Reversals of sex-characteristics were also found in the post-encephalitic group. Very few "verbalistic" or "individualistic" drawings were noted.

McElwee compared the profile drawings of subnormal children with those of chronologically younger children

whose C.A. equalled the M.A. scored by the older subnormal child. She found the drawing of the subnormal but older children to contain more mature elements, but also more immature ones: these overbalanced the mature elements in the final score.

Silver has presented an account of the use of the D/M test in psychiatric diagnosis, and he gives some interesting examples of the drawing of schizophrenic children and those with organic brain damage. The drawings of the schizophrenic children reflect clearly the bizarre and disorientated mental state of the subjects, whilst those of organic brain lesion cases reflect the aphasic and co-ordinative difficulties of these cases.

Silver does, however, go beyond scientific warrant in his interpretations. He speaks of the drawing as reflecting the child's own body-image, as showing his concept of himself. Whilst in a theoretical sort of way, this is doubtless true, without a great deal more understanding of the underlying dynamics of children's drawings (and we are far from such understanding) it appears dangerous to draw very specific conclusions. Are we to suppose that because a young child draws the arms coming out of the ears that he really understands himself that way*? Silver interprets the drawings some-

* See Example, C. page 886 .

what along these lines: in one case he speaks of the small upper extremities shown in the drawing as representing repressed aggression, and the addition of a sun in one corner as a wish for father. The whole relation of self-concept to motor co-ordination, perceptual maturity and other factors involved, is doubtless highly complex, and to suppose so simple a relationship as Silver does is somewhat naive. He also claims that the D/M test gives an accurate measure of intelligence, which is more than the originator of the test or subsequent workers have believed.

The test has been used in several investigations to detect improvement after therapy or personality changes in other situations. Ocks found a general improvement of scores in a group of children under treatment as social adjustment was bettered, but no specific changes in the details of the drawings were noted.

It appears that the test does reflect differences between normal and abnormal groups, both in the score and in the content of the drawings. The literature contains no suggestion as to the dynamics underlying this, and research in this direction might be rewarding.

A recent book on the use of drawings of the human figure as a projective technique is published by Machover.

Unfortunately the value of this book is very much reduced by the number of assertions that are made without any supporting data. For example:

> "The Adam's apple appears in drawings with comparative infrequency. It has been mostly seen in the drawings of young males as an expression of a strong virility or masculinity drive. Special interest in the Adam's apple has been restricted to the sexually weak individual who shows little differentiation between male and female characteristics..." etc." (p. 58)

Whilst her contentions might be true, she gives no supporting evidence for them; she does not define 'strong virility' or 'sexual weakness' nor does she give any details as to how these qualities were assessed, nor how strongly this feature is associated with the personality traits under discussion. It is apparently associated with both strong and weak masculinity: presumably one "pays his money and he takes his choice." Information of this sort is valueless to scientific discussion, but the whole book is made up of statements of this kind, without any attempt at justification beyond the quoting of individual cases: even in these she gives no evidence to support her contentions or to show that her interpretations of the significance of the features are in fact the true ones.

Effects of innate motor factors and practice.

Ansbacher has shown some experimental evidence that the test is in fact very low in its correlation with manual dexterity or simple co-ordination, whereas it correlates more highly with factors of reasoning, space and perception (r = .40, .38 and .37 respectively) which gives some support to the claim that the test measures "the ability to form concepts based on observation," and is largely independent of the simpler motor abilities.

It is appropriate to question the extent to which practice in drawing may influence the scores on the D/M test. The scale has been devised to be as little influenced as possible by natural aptitude in draughtsmanship, and over the general run of children this factor is probably negligible, although there would doubtless be influences on the results in cases of special ability or disability in these skills. The influence of practice, as distinct from aptitude, is demonstrated in a study by Dennis (1942) of the drawings of Hopi-Amerindian children. These people have an important place in their culture for graphic art, but it is practiced almost exclusively by males: however, most of the children of both sexes attend school between 6 and 10, where

paper-and-pencil drawing is part of the curriculum. Within school boys and girls would presumably have equal opportunity to practise (the author does not mention this point) but the boys would have additional practice outside, with the stimulus of social approval as well. On the D/M test boys scored a mean I.Q. of 117, whereas girls scored a mean of 100. Assuming a normal distribution of intelligence in the groups studied (which comprised 77 boys and 75 girls), one might assume that under conditions of minimal practice the girls' results reflected the I.Q. quite accurately, whereas the boys' scores were bolstered by practice above the I.Q.

No other studies showing the effects of practice are quoted in the literature.

The children in the present study would have had little opportunity of using a paper and pencil, or of drawing, in the first 4 or 5 years whilst in the Baby Homes. Whilst this is no longer the case, so far as could be ascertained, the need for such opportunity had not been appreciated in the past and these things were not often provided.* The amount of opportunity in the Cottages would vary according to the ideas of

* Nursery-school classes are now run, but have not affected any of the children in this study.

the cottage-parents, but owing to the number of children in each cottage there is not a great deal of such practice. Normal opportunity is available in the school for drawing. Although the amount of drawing practice available to these children has been definitely restricted, it is probably little or no less than that enjoyed by children of similar socio-economic background living in their own homes. On the whole one might regard the amount of drawing practice given in school as sufficient to supply that minimal basis assumed for the test, and suppose that the retardation noted is due more to other causes than to lack of practice.

The practice effect would undoubtedly become important if comparison was made between this group and one with superior opportunities for drawing practice.

The influence of cultural factors has been noted in a number of studies. Rouma has pointed out the similarity between the drawings of primitive adults and those made by young children in our culture. As Piddington points out, however, it is necessary to remember that in such cases one is comparing the products of groups with little or no experience of paper-and-pencil work, and the similarity may be due only to the lack of practice and not to any "childishness" of

the primitive adult. Goodenough reviews a number of studies (including that by Dennis mentioned earlier) which show the impact of cultural factors upon the drawing - the presence or absence of graphic experience, the influence of traditional art, etc. She discards her own original claim that the Test is a culture-free one, whether of intelligence, artistic ability or anything else.

She says, however, "....Repeated studies have shown that when used with children of reasonably similar cultural backgrounds who are equally motivated to do well, the test is serviceable as a crude measure of "general intelligence," although the self-correlations and correlations with outside criteria make it clear that it cannot serve as a satisfactory substitute for individual tests of the Binet type. From such factors one might conclude that the test is better suited for ranking individuals than for ranking groups in order of estimated intelligence, provided that the individuals studied are relatively homogeneous in respect to other factors which affect the results. Thus the rule that a test of only moderate reliability and validity is better suited to the study of group differences than to the identification of differences among the individuals comprising any group can be accepted only with the

reservation that the test is as well suited to the interests and experiences of one group as to that of the other."

In view of this statement, one feels justified in using the test fairly confidently in comparing the MF and L groups in the present study. Rather more reserve may be necessary in comparing the children of an institution culture with those of the general culture.

Unusual types of drawing.

Reference has already been made to "verbalistic" and "individual" types of drawings. Goodenough introduced these terms to describe rather uncommon drawings which it is claimed are produced by abnormal children. The "verbalistic" type of drawing contains a large amount of detail but comparatively few ideas. The "individual response" type contain features which are inexplicable to anyone except the child himself. Two other categories are introduced. Some drawings show a "flight of ideas", as when hair is shown on part of the head only, or one ear is shown and not the other. Others combine mature and immature characteristics which is suggestive of uneven mental development. (This is analogous to "scatter" on the Binet test).

In one school of 450 children, Goodenough found 9 drawings (2% of total) which exhibited one or more of these four characteristics. Using a check list questionnaire of instability filled in by the teachers of these children, she found no significant difference between these children and a paired control group. A further experiment with psychopathic children revealed no particular tendency towards the production of these characteristics. Reference has already been made to Berrien's study of abnormal children; she found very few "verbalistic" or "Individualistic" drawings among 52 frankly abnormal children. The information on this point is meagre at present, and does not encourage one to base deductions upon these aspects of the drawings.

Sex differences.

Burt, as early as 1922, mentions sex-differences in the characteristics of drawing-a-man. In connection with the absolute scores, he observes that because the specific drawing talent is less among girls than boys, the girls' score depends more largely on the general ability. The test is therefore more valid as a test of intelligence for girls than for boys (especially older boys). In subject matter, Burt states that girls

tend to copy a model whereas boys are more imaginative: girls are more meticulous of detail, whilst boys are more inventive and deal with general impressions. Particularly in dress, the girls are more accurate and more decorative than boys and show an interest in the details of dress at an earlier age. Girls are weaker in the sense of proportion and perspective.

Goodenough (1926) tabulates certain fairly marked sex-differences which she found in an empirical study. These differences are reproduced in Table 2. The factors underlying some of these sex-differences are not at all apparent, and no study of the question is reported in the literature: it does not appear readily explicable, for example, why boys should draw the heel more often than girls, or tend to show the trousers transparent, whereas girls more often make the head larger than the trunk. Other differences are more obviously related to difference of physique or fashion between the sexes. The significance of reversals of the sex-characteristics, where a subject makes a drawing with typical features of the opposite sex, has not been carefully studied. Reference has already been made to such reversals in cases of post-encephalitic disorders, and in psychopathic subjects. Attention has been drawn by some writers to reversals in the drawings of homosexuals, and it is reasonable

to suppose that certain if not all of the tabulated characteristics might be diagnostic in this regard.

Günzberg presents material on the drawings of people by subnormal children (80 boys, 80 girls, mean I.Q. 65) and he notes certain sex-differences. There was a highly significant tendency, (1% level) for boys to produce bigger drawings than girls. It is of interest that the girls showed a fairly marked tendency, when drawing pairs (a man and a woman) to make the woman significantly larger than the man. The boys did not show any noticeable tendency in this direction, except in the youngest age group, who did tend to draw the men larger than the women. (A test was made of sequence, to see if it was the first drawing that was largest, but whether drawn first or second, the above tendency to represent the own sex largest was maintained). Günzberg points out the suggestion of immaturity in this tendency to enlarge the own-sex.

As a further point relevant to sex-differences, Günzberg discusses the evidence that the nature and scaling of the test gives some advantages to girls (who tend to be more meticulous of detail and neatness), as shown by a number of writers, including Goodenough. This point needs to be considered in comparing groups

of boys and girls. (In his study this sex-difference was clearly reversed, so it does not hold for his population).

He refers also to the marked tendency for the girls to draw full-face views rather than profile, and this sex-difference was demonstrated in his study.

Homosexual drawings. Only one study of the drawings of known homosexuals is reported in the literature, that by Darke and Geil. They examined the drawings of 100 prisoners (American), many of whom were committed for homosexual offences, or had manifested consistent overt homosexuality in prison. All were male adults. The drawings were scored somewhat subjectively for the femininity factor, based on the following guide:

Feminine characters: large eyes with details such as an accentuated brow, lashes and pupil; cupid's-bow mouth; delicate mouth; curved figure; small hands and feet; graceful posturing.

Masculine characters: less prominent eyes and detail; large mouth with few curves; large nose; angular figure; large stubby hands and feet; obvious masculine posture.

The drawings were scored according to the degree of

femininity shown:

F0 no apparent femininity.

F? only questionable femininity.

F1 weak femininity.

F2 moderate femininity.

F3 strong femininity.

In most cases the feminine factor appeared without conscious recognition on the part of the drawer.

Other factors were scored: AD for absurd distortions, CM for compensatory masculinity, and full-face, profile and mixed full-face profile.

The mean I.Q. of this group was 100, but the range was very large. The subjects were grouped according to the nature of their homosexuality (whether they were exclusively homosexual, or heterosexual as well, whether they preferred the active or passive role, etc.).

Not all the subjects displayed feminine characteristics in their drawings, but the most marked feminism was shown in the most extremely homosexual group (those who practised homosexuality consistently and to the exclusion of heterosexuality), and the results also differentiated the active and passive homosexuals, the latter showing more feminine drawings. The less extreme groups showed the CM factor more often.

It should be noted that the D/M test is by no means

an infallible diagnostic instrument: 17% of the most extremely homosexual group scored F0, and a further 17% scored F?. The absence of a control group leaves unanswered the question of how many normal heterosexual adults score F characters.

It does appear, however, that the test is useful as a diagnostic instrument with adults, although this does not throw much light on the immediate question as to the significance of sex-reversal in children.

Summary of relevant information on the D/M Test.

From the foregoing review of the literature on the test that is relevant to the present study, the following information is gained:

(a) The test has not been restandardised since its publication by Goodenough, but its increasing popularity suggests that the norms have not been found inadequate. The norms for the higher ages may be a little too high.

(b) The test correlates only moderately with the standard tests of intelligence, and it should not be used in their place. Its reliability is only moderate.

(c) Differences between the drawing scores and intelligence

test scores are noted in certain groups. In particular, socially inadequate groups appear to show a D/M score which is depressed relative to the I.Q.

(d) The test appears to be fairly independent of simple innate motor factors (co-ordination, etc.). A certain minimum of practice is necessary to a true reflection of intellective factors, whilst practice above this minimum may raise the score.

(e) The test is susceptible to the influence of cultural factors, and cannot be regarded as culture-free. It is useful only when comparing groups of similar cultural background.

(f) Unusual types of drawing appear rather uncommonly in either normal or abnormal populations: their diagnostic significance is uncertain.

(g) Certain sex-differences in the characteristics of the drawings have been noted.

(h) Sex-reversals of these characteristics have been demonstrated in a group of adult male homosexuals. Sex-reversals have also been noted in certain abnormal children's groups, but the relationship to homosexual trends in children has not been studied.

It appears that the test might be useful as a crude test of intelligence, but may be more useful as a measure of social maturity and of masculinity-femininity factors.

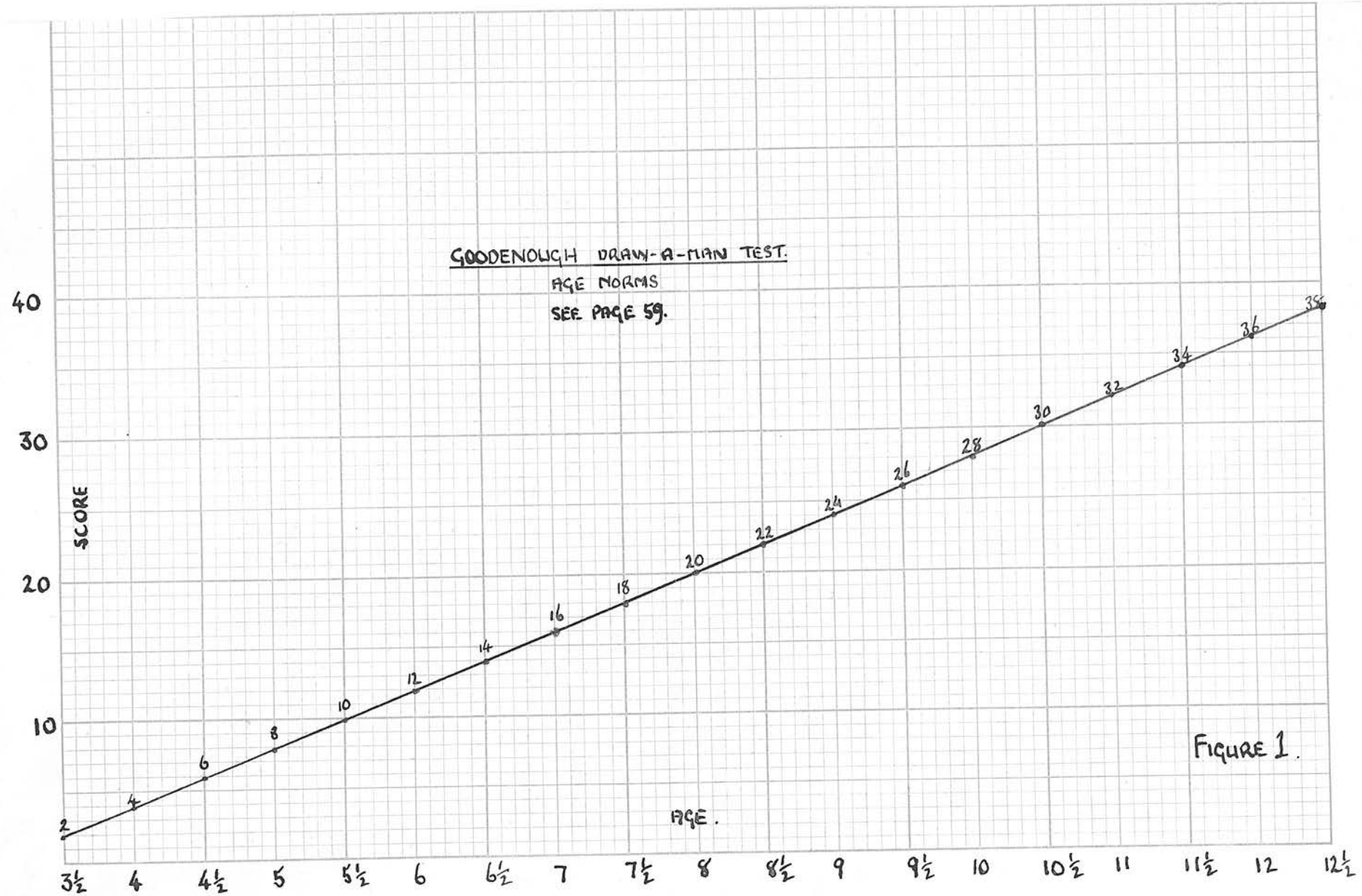

GOODENOUGH DRAW-A-MAN TEST.
AGE NORMS
SEE PAGE 59.
SCORE
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FIGURE 1.

Administration and Scoring of the D/M Test.

The test was administered under the standard conditions suggested by Goodenough, using a sheet of paper 6" x 5½" (presented with the longer side vertical). Her scoring scale was strictly adhered to, and the results recorded on a form (specimen in the appendix). In some cases the D/M was given in the same session as the free-drawing test, in which case the latter was always given first.

The norms supplied by Goodenough are given at yearly intervals, and apply to the half-year (i.e. at 3½, 4½, 5½, etc.). By interpolation on the group scores for the full years are also obtainable. It was not felt to be justifiable to read off the intervening months, and the drawing M.A's are quoted to the nearest half-year: a score falling mid-way was taken to the next half-year above. The M.A's thus go from 3-6 to 4-0, 4-6, 5-0 etc. up to 13-6. Chronological ages were approximated to the nearest half-year also in calculating the D.A.Q., and C.A's over 13-6 were reduced to this for calculation of D.A.Q's. The scores on this test are therefore somewhat crude.

In order to score the masculine or feminine characteristics of the drawing, weighted scores were given for the various items listed by Goodenough (1926, p. 61): these

weightings are approximated to the relative frequency she reports for these features in the drawings of girls and boys, and are given in Table 2 .

The weightings have been so arranged as to emphasise those factors that appear most closely related to sex-differences of personality or interest. To give an equal total rating to masculine and feminine characters, the fewer masculine factors have had to be over-weighted, by doubling the raw scores first arrived at. This has resulted in the scores over-emphasising the masculine factors, so that a ratio of xM to xF does not truly reflect an equality of the characteristics. Such a ratio really means a tendency towards feminine characteristics in the drawing. A total of 26 points are allocated to the masculine and feminine scores. This scoring of the masculinity-femininity characteristics of the drawing is by no means satisfactory. For example, if the figure is shown walking or running, this scores 6 points on the M side: if a "Cupid's bow" mouth is shown, this scores 3 on the F side, but there is no evidence that the former is twice as significant as the latter: indeed the reverse may well be the case. A more thorough investigation is needed to determine the value and significance of the various sex-differences noted by Goodenough.

TABLE 2.

Sex-characteristics of drawings (after Goodenough).

	% of drawing showing		
	Boys	Girls	Weighting
Masculine characteristics:			
At least head and feet in profile, in same direction	58	36	2
Accessory male characteristic (pipe, walking stick, etc.)	21	9	4
Trousers transparent	12	3	4
Heel present	53	37	2
Figure represented as walking or running	20	7	6
Arms reaching below knee	11	3	4
Necktie shown	25	14	4
			26
Feminine characteristics:			
Nose represented only by two dots	7	28	3
Feet less than 1/20 total body length	4	16	2
Eyes showing two or more of following details:- brow, lashes, pupil, iris	1	11	4
Hair very smooth or neatly parted	13	34	3
"Cupid's bow" mouth	1	7	3
Cheeks shown	1	7	2
Trousers flaring at base	6	21	2
Head larger than trunk	9	17	2
Arm length not greater than head length	11	26	2
Curly hair	2	7	2
Legs not more than ¼ trunk length	2	12	1
			26

It is probable that the system of scoring adopted rather underestimates femininity factors, so that individuals or groups showing a feminine tendency will be more rather

than less feminine if any error exists.

In addition to this method of scoring 'm-f', use was made of Geil's system of scoring. The drawings were scored F0, F?, F1, F2, or F3 according to his criteria. Owing to the primitive nature of so many of the drawings, a further category, P, was added to cover drawings too primitive to be scored.

Goodenough Draw-a-Man Test.

Analysis of data.

The combined MF group had a C.A. of 8-7 at the time of testing, and a mean Drawing M.A. of 6-0. The average D.A.Q. was 71.19. In no case was the Drawing M.A. equal or above the C.A.

The mean scores on the Terman and Merrill were an M.A. of 7-4 and an I.Q. of 84.

The group is therefore retarded, as compared with a normal population, by 2 years 7 months, and the drawing M.A. is depressed 1 year 7 months below the Terman-Merrill M.A. The former result, that an institution group should compare unfavourably with the general population, is not surprising, and the figure reflects the social immaturity of these children. In the earlier review of the test, it

was seen that a drawing M.A. which is lower than the M.A. as given by conventional intelligence tests may accompany maladjustment of the child to his social setting. As indicated elsewhere, the present group is abnormal in certain respects, as compared with the general population, but there are no indications that it is a maladjusted one in the sense of not fitting into its own peculiar social milieu.

The difficulty is to some extent a verbal one, as to what constitutes maladjustment. Whilst we are perhaps not justified in calling the Group a maladjusted one in its present setting, the results of this study support the findings that these children are socially immature. In certain circumstances this immaturity could lead to maladjustment, as, for example, in a sudden transplantation into the more complex demands of normal life.

Unusual drawings in the MF-group.

Whilst many of the drawings were very immature, and typical of much younger children (see, for example, C, which is by a boy aged 7-11), there was none that was "individualistic" or "bizarre". Two were mildly "verbalistic" (see A and B), but nor markedly so. B was drawn by

the dullest boy in the MF-group, aged 9-8.

Twelve of the drawings showed some amount of "scatter", a combination of maturer and immature features, but owing to the general immaturity of the drawings this was not a marked feature in any.

Some of the boys, instead of drawing a man as requested, drew rows of small figures (see D), or a more or less orderly succession of figures that were a copy of the first one, (see E). In only one picture (G) were two figures placed in anything suggesting a relationship.

F is by a boy of average intelligence, aged 8-9. It scores a D.M.A. of 6-6.

General features of the drawings.

A notable feature of these drawings is their static quality. The majority gave no indication whatever of a character, but even where a definite character was attempted, there was little suggestion of action: G shows two footballers, but they might quite well be statues of footballers (if these heroes have statues) for all the action that is suggested in the drawings. According to Goodenough (1926) there is a fairly consistent relation between intellectual maturity and the depiction of movement, and it was only the difficulties in making a satisfactory

scoring system that caused her to leave it out of the scale. She also found that movement was more common in boys' drawings than girls'. Only one drawing in the whole MF-group gave any suggestion of movement, and that was a picture of a man walking, by the oldest boy in the study. It is evident that this matter reflects the general retardation of the group, and possibly also their failure to share the characteristics of more typical boys. (cf. Hinrich's findings with delinquent boys).

Another quite consistent characteristic of children's drawings is the change from full-face to profile. According to Burt (1922) this change commences at about 7: Goodenough found it to appear earlier in boys than in girls, but she does not quote ages. In the present study only 5 boys showed a consistent profile drawing, and these were all 10 or over. 4 boys (of whom one was over 10) gave a transitional drawing, and the majority were complete full-face drawings. The numbers are, of course, too small to show definite trends, but it seems that with these children the change from full-face to profile drawings does not occur until the 9th or 10th year.

Another feature of the drawings of normal children is that by 9 or 10 the drawing typically has some sort of accessory which is reasonably well incorporated into the composition. Only 7 of these drawings attempted even a

rudimentary characterisation: in three cases this was merely to add a walking stick. E shows six figures, which the boy identified as Boxers and Bakers: the former apparently go to the ring wearing a bowler hat. As already mentioned, G represents men playing football, and in the left-hand figure the distinguishing feature is the studs on the 'boots'. This is by a boy of 10-10. Another related feature is that only one of the drawings gave any sort of ground for the figure to stand upon. This is, of course, to be expected in the younger children, even when not handicapped as these are; according to Burt a 'ground' is typically added about 9 or 10, but only one of the twelve boys over 9 did this.

The lack of action and the lack of characterisation in the drawings prevented the interpretation of the drawings as a projective technique. The only thing projected into the situation was the intellectual poverty and retardation of these children, which is clearly brought out by the above remarks.

Although slightly younger, the M-group had a higher D.A.Q. than the F-group (72.2 and 70.2 respectively), but the difference between these means is not statistically reliable.

A noticeable feature of the drawings is the small size of most of them. The paper supplied was 6 x 5½ inches,

but instead of reasonably filling this most of the boys gave a quite tiny drawing, in one case only 0.7 inches high. The average height was 2.5 inches. Comparative data is not available, but it may well be that this lack of 'expansiveness' is related to the restriction of personality.

Free-drawings.

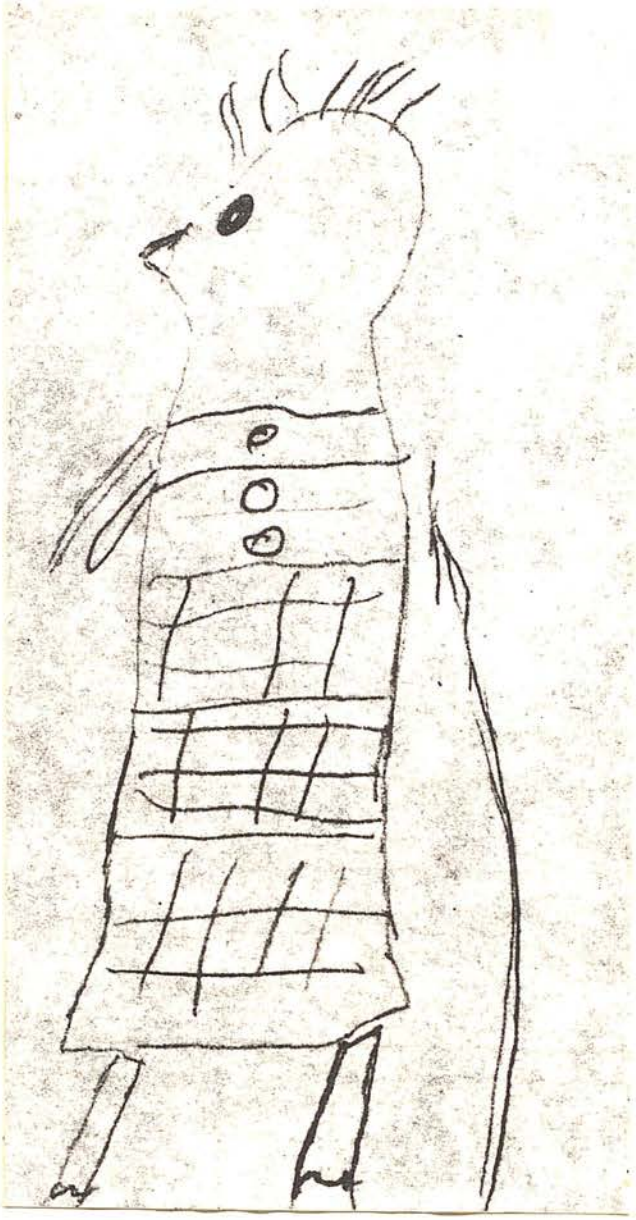
In addition to the drawing of a man, each boy made at least two other free drawings, in which no subject was specified. One of these was in colour, using crayons. These drawings give some very interesting material, but as a proper discussion of them would involve an extensive review of the whole subject of drawings, it was decided to omit this from the present work. An interesting feature is that where a human figure was included in the drawing, in practically every case it was almost identical with that produced in the Draw-a-Man test. This occurred even when there was an interval of weeks between the drawings. Errors were faithfully reproduced: one boy, for instance, drew a semi-profile, armless man, and the same figure appeared several times in his free drawings. It seems as if these children have a pictorial stereotype (often distorted) which varies only slowly with age. The most

noticeable feature of the free drawings is the sparseness of ideas, many of the drawings involving simply a repetition of a single crude theme (e.g. several very crude drawings of a boat, or rows of little men). Detail was almost entirely lacking, and the pictures were characteristic of children two or three years younger than the executor.

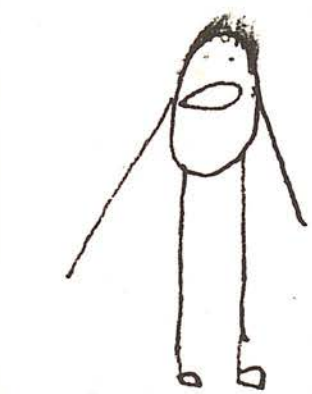
Another feature was the absence of aeroplanes and other subjects which are normally popular in boys' drawings. The most common subject was a house, which at the age of most of these boys is a more popular subject with girls. These drawings also reflect the fact that these boys are not typically boyish in their interests.



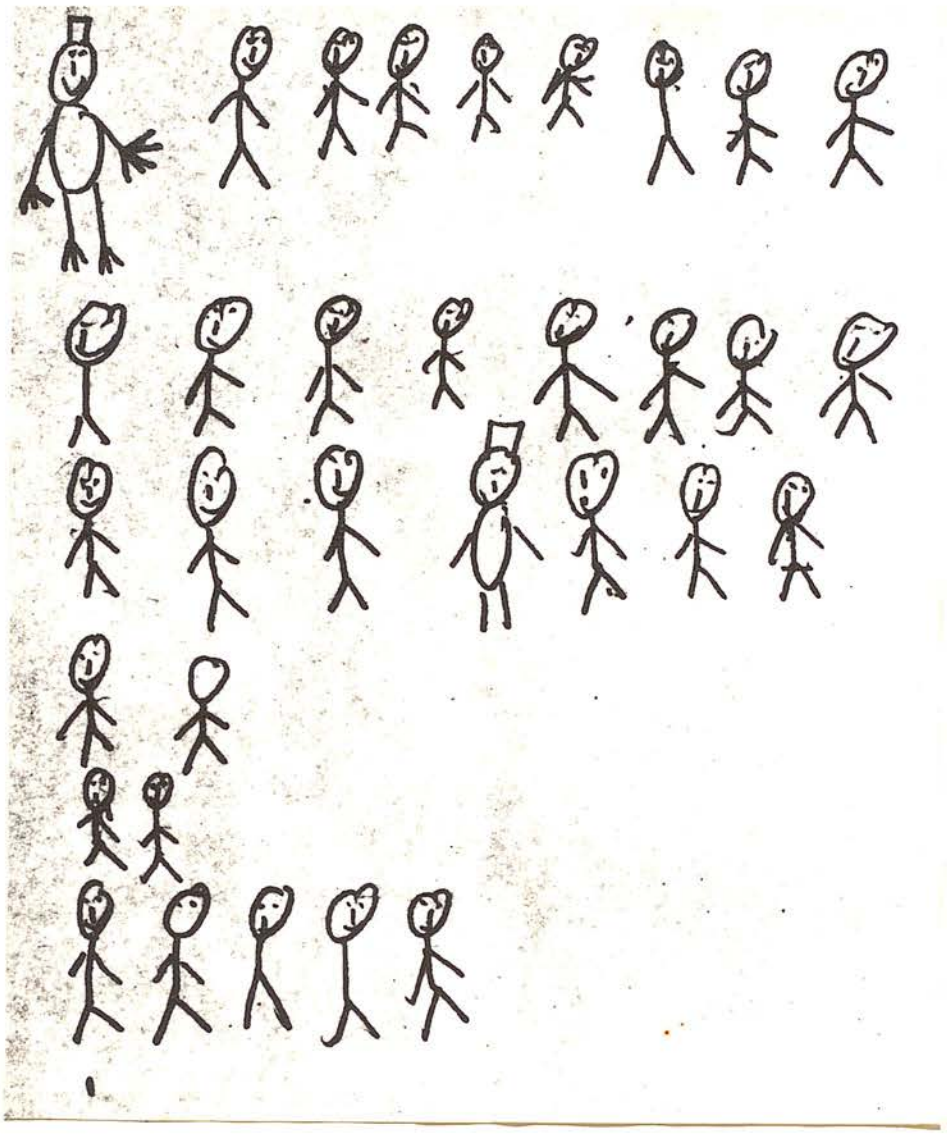
A. Drawing from M-group (M 10) age 8-5, D.M.A. 6-6.



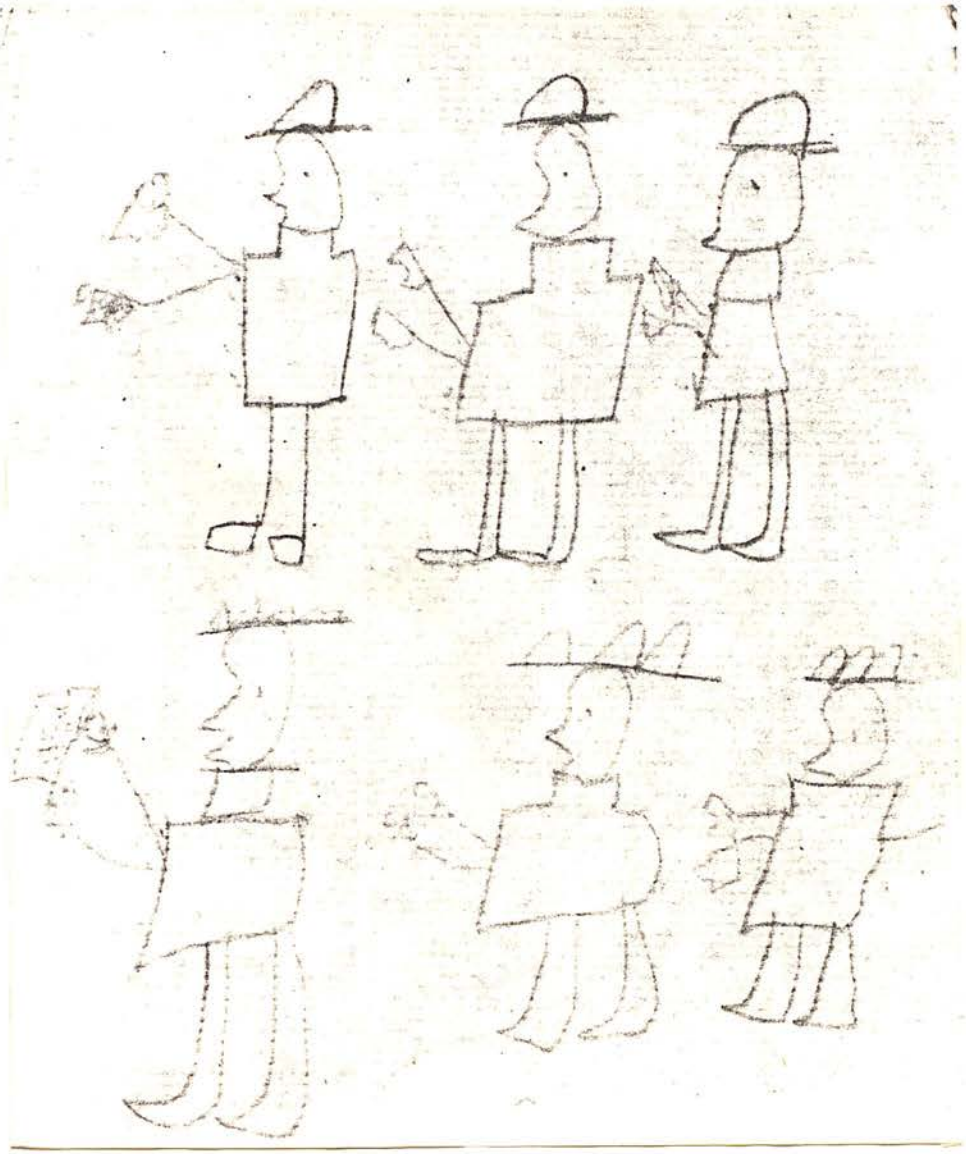
B. (above). Drawing by a boy aged 9-8, T-M M.A. 6-6, D.M.A. 6-6.



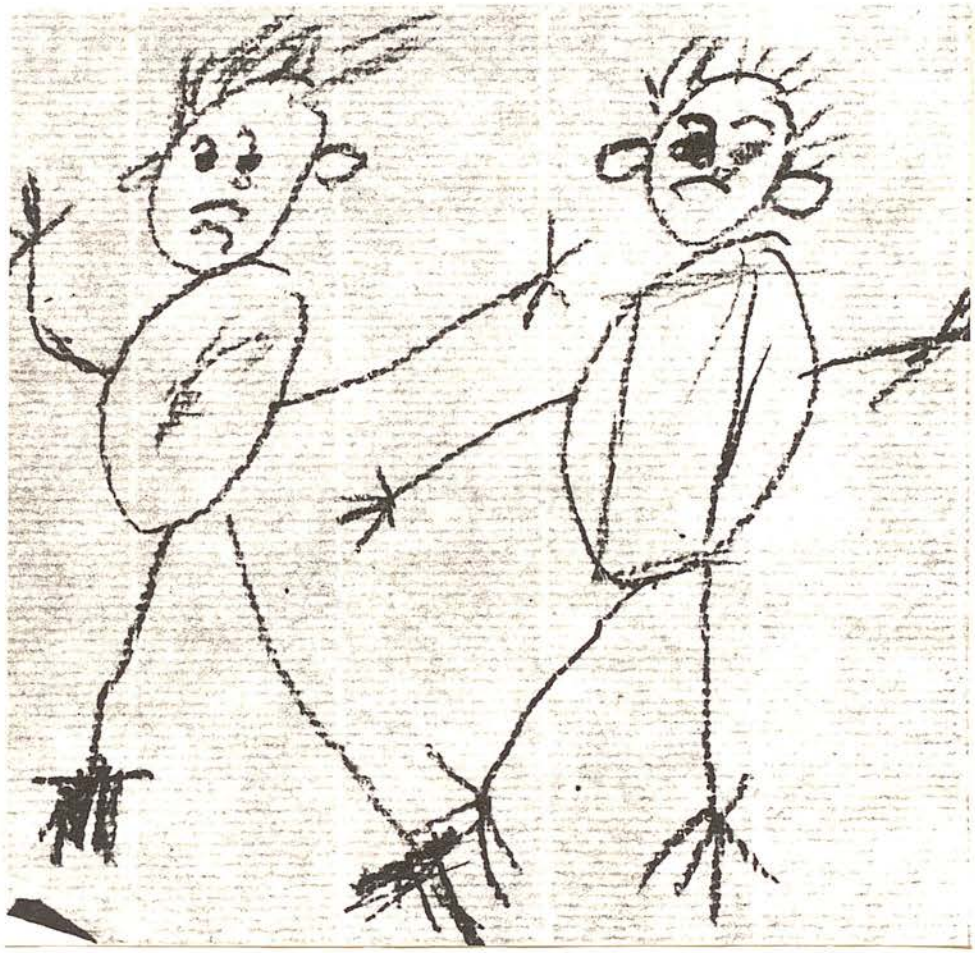
C. (left) boy aged 7-11, D.M.A. 4-6.



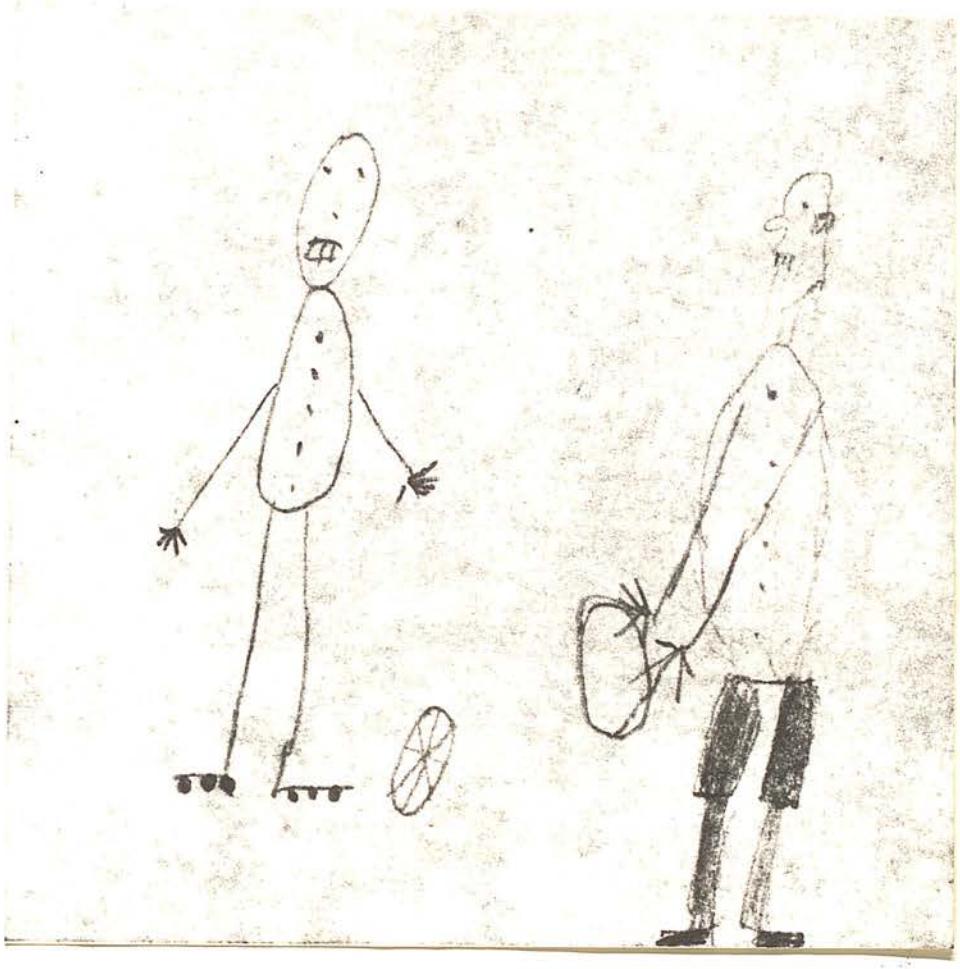
D. By a boy aged 8-9, D.M.A. 6-0 (calculated for the first figure). He commenced by filling out the rows down, then across.



E. Drawing of a man by a boy aged 9-8. It scores a D.M.A. of 5-6 (scoring the first drawing). The top row of figures were described as 'boxers' and the lower row as 'bakers'.



F. By a boy of average intelligence, aged 8-6, D.M.A. 6-6. See M 16 in the case summaries.



G. The figure on the right was drawn first, and scoring is based on that: he was aged 10-10, D.M.A. 7-0. (See M 21 in the case summaries).

Controlled Thematic Apperception.

This projective technique was developed in an Honours B Sc. thesis by the writer. In working with such children as those of the present study, the more familiar T.A.T, often produces nothing: these children are so restricted in their capacities of self-expression and of imaginative production that more often than not the most one can elicit in the way of response is a description of the picture. However valuable it may be with brighter children, Murray's T.A.T., in the writer's experience, is a very uncertain tool with deprived children.

The C.T.A.T. technique provides in the first place a more specific pictorial situation, and this is rendered more specific still by a form of narrative, with key questions interposed. In the original form of the test, this narrative was rather longer, but in the present it has been reduced, and in some cases consists essentially of the questions. Although this method inevitably restricts the projection, it does so only in a general fashion, and leaves the child free to interpret and project in a number of different ways. Whilst one loses the spontaneous projection of the ordinary technique, one gains the advantage of being more certain of obtaining insight into specific questions that may be of interest. In the T.A.T. it is

rather a gamble whether or not the material will throw up clues relevant to some particular point of concern, whereas here responses are channelised, and one can select the pictures likely to trigger some particular matter.

Out of a score or so in the original form of the test, 10 pictures were selected for the present experiment, and these were as follows.

Results of C.T.A.T.

The most obvious feature of the responses to this test is the poverty of ideation and the flatness of interpersonal relationships that it reveals. The responses not given are almost as interesting as those that are!

The material from a test of this kind does not lend itself to mass treatment: the responses cannot readily be classified, nor quantified in a manner that makes possible meaningful statistical treatment of the data. This test therefore contributes much more to the understanding of individual cases than group trends. Only certain aspects are therefore to be dealt with here, the test giving more to the individual clinical assessments of a later section.

Parental references.

The following is an analysis of the references to

(Facing page 91).

* A distinction must be drawn between 'attitude' and 'identification'. As was pointed out in the first Volume, a primary identification can occur only with a person with whom there has been prolonged and affectionate relationships, and even secondary identifications usually require some personal contact. Identification (as the term is used in this thesis) is essentially the result of personal affection, whereas an attitude can be built up without this experience. Attitudes obtained in the absence of personal contact are liable to be unreal. Boys lacking a father-figure tend to build up a 'sugar-daddy' attitude to men, and because this attitude is unreal, it may prove unserviceable, for sooner or later it has to be learned that the dream world and its dream population compares too favourably with reality. The shock of this discovery sometimes results in a retreat more deeply into irreality. Whilst a positive attitude aquired by phantasy may help identification, for this reason it may also hinder. The attitudes under discussion here are no substitutes for identifications aquired by satisfactory personal contacts.

'father' and 'mother' figures, classified as 'good' or positive references (i.e. as a loving, comforting or otherwise benificient person), or as 'bad' or negative figures (i.e. punishing, frustrating etc.), or neutral references that do not reveal a trend in either of the above directions.

		Father			Mother			Total
		+	o	-	+	o	-	
F-group	N	22	38	2	12	57	28	159
	%	13.8	24	1.2	7.5	35.9	17.6	
			39%			61%		
M-group	N	16	37	11	22	62	25	173
	%	9.3	21.4	6.3	12.7	35.6	14.7	
			37%			63%		

Unfortunately the numbers involved are too small for tests of significance to be applied. It will be noted that the F-group (which is lacking a real father-figure) shows a tendency to think more positively and less negatively of fathers than boys in the M-group with actual experience of a father-figure.* This tendency to idealise an absent parent has also been noted in other studies of children with real fathers absent on Service. The F-group also tends to think less highly of the mother than the M-group, which perhaps reflects the fact that in the Cottages with a married couple the cottage-father takes some at least of

the disciplinary obligations off the cottage-mother, and so enables her to be a more positive figure. The single cottage-mother is at a distinct disadvantage in this respect, and the balancing of frustration and affection that can occur when two parent-substitutes are present is not possible.

In both groups the negative references to the mother fairly heavily outweigh the negative references to the father. Card 3 is expected to reveal the attitude to frustration, and whereas 35 of the boys identified the frustrator with the mother or 'the woman'*, only one identified him with the father. Numerous references appear in other cards to punishment or frustration by a female adult figure, much more commonly than by a male-figure. On card 4, which strongly suggests a person walking away, two boys said that the woman came in and hit John! Two factors in the immediate environment of these children probably contribute to the facts noted. In the first place the school is staffed very largely by young and inexperienced teachers (mostly girls recently out of training college), and not having acquired the knack of discipline by more satisfactory methods, resort unduly to the tawse. At the time of this investigation 12 out of the 33 teachers were probationers fresh from training, which seems

* This impersonal manner of reference to adult figures is common among deprived children.

an unduly high proportion in a school where the children are in any case handicapped by social factors, and where the most skilled teachers are needed, not the least skilled. The turn-over of staff is also unduly high, partly because the probationer teachers move on to other permanent posts at the end of their period, and partly because experienced teachers prefer work in easier schools. Teaching in this school is difficult, because no attempt has been made by the County Education Committee to place defective children in Special Schools, so that they are a hindrance to the progress of the brighter children and miserable in themselves. Furthermore no attempt has been made to supply the special educational needs of the children as a whole (such as are suggested in the recent report on the education of the socially handicapped child). School is therefore a source of great frustration both to the children and the teachers. The responsibility for this lies with the Director of Education, for it involves matters of policy over which the Headmaster has no control.

The second factor lies probably in the Cottages, and stems largely from an unfortunate tradition that has grown up in them. In the past a guiding principle has been that Satan finds work if mortals don't, and the children have been kept very busy with household chores in order to deny the Devil this opportunity. The children had naturally reacted

with principles of their own: for example, take as long as possible over a job, if you finish you'll only get another! Similarly, don't do a job too well, or you might be asked again! To-day this constant housework is no longer imposed, and in point of fact the small chores asked of a child are by no means unreasonable and could be dispatched in minutes by a zestful approach. Unhappily the old traditions live on, and whilst such chores are now limited to the essential minimum, the old attitude to them lingers. On the whole the burden of organising this none-too-willing activity falls upon the cottage-mother, even where there is a cottage-father also. A high proportion of the quarrels between child and staff centres around these matters, and they contribute to the sort of situations that one finds reflected in the responses to this test.

As a digression, it is of interest to ask what function the continued tradition of 'work-shyness' serves, for anthropologists believe that cultural factors of this sort do not prolong themselves after their purpose is served by mere inertia, but that some function (perhaps unrelated to the original one) is still being fulfilled. On the face of it one might suppose that commonsense would direct that the small chores should now be done with the utmost expedition, so that playtime might come the sooner. Possibly the attitude persists as an expression of the new-

found independence: it could be read as a sign that more outlets are required.

Analysis of certain group-trends.

An analysis of the responses was made according to certain of the Needs and Press suggested by Murray.

Category	F-group.	M-group.
n Aggression	11	6
n Succorance	15	7
n Achievement	0	0
n Passivity	30	10
n Dominance	1	0
n Abasement	1	0
n Nurturance	0	0
n Sex	0	0
n Intragression	12	12
p Aggression	15	16
p Rejection	8	13
p Nurturance	0	0

Three categories are of interest on account of the zero scores. The complete absence of n Achievement is typical of institution children. Deprived children might be expected to show a longing for affection which would be reflected in a high score of p Nurturance, but on the contrary there is a zero score on this item. These children have never known nurturance in the way that family-children

have, and what they have never experienced, they never feel the lack of. It is a question of what the eye has not seen the heart does not grieve over. The 'need for affection', as was suggested in Volume One, is an induced one, and it has never been induced in these children, who consequently do not display it.

The absence of n Sex is in fact the usual thing with children of this age, but is perhaps a surprise to the adherents of one school of thought.

The F-group scored three times as highly on n Passivity as the M-group. This appeared, for example, in the first card, in which 'Henry' infrequently made a constructive reaction to the situation (in which the best course of action would be to make some more porridge), but cried, walked away, said someone else could make it, or some similarly inept reaction. The F-group displayed less initiative in dealing with situations than the M-group. However, neither group is conspicuous for initiative, and in this they compare with other groups of under-privileged children upon whom the same test has been applied on other occasions, but the comparatively lowered initiative of boys lacking a father-figure has been noted by the author in numerous situations, and this is a point that might profitably receive further experimental investigation. The presence of the father-figure seems to go some way at least towards mitigating the effects of deprivation.

The boys of the F-group showed rather more aggression than the M-group, and this is contributed to some extent by the reactions in the porridge burning episode: the boys of the M-group more often responded constructively, whereas those of the F-group tended more often to fight rather than feed the others, that is, to show anti-social aggression. Whilst the trends are small (owing to the small groups involved), this finding is in line with the greater tendency towards delinquency of fatherless boys which has been noted elsewhere.

The F-group also scores higher on n Succorance, which suggests a greater insecurity of this group. The M-group has a rather higher score on p Rejection, but on total the results of this instrument suggest that the M-group is better adjusted than the F-group.

In relation to card 2, the majority of boys in both groups said that the children were happy, but did not give the reason that might appear the obvious one to an adult mind: the common answer was not that they were happy because they were at home with their parents, but simply because they were playing. Children naturally think of happiness in concrete and rather material terms, but no longing for family-life was revealed by this item. In this connection it is of interest to note that only 10 children (5 in each group) identified the picture as a family, but most spoke in impersonal terms, a man, a lady, a boy etc.

Card 4 frequently triggers 'feelings of rejection' in children who have actually experienced desertion by a known parent, but was not thrown up by any of these children, who have never known a real parent or had the experience in later life. These children apparently do not look upon themselves as emotionally deserted.

The remaining cards gave numerous responses of individual interest, but no group trends of any particular note: these results are included in the case-summaries.

The material of the C.T.A.T. follows.

C.T.A.T. 1. CAMPING.

Here are some boys camping;

a. Tell me what each boy is doing.

b. One of them is Henry; which do you think he is?

Well, one morning he was cooking the porridge for breakfast, and he let it burn, so that it was all wasted. The other boys came to him, and

c. What did they do?

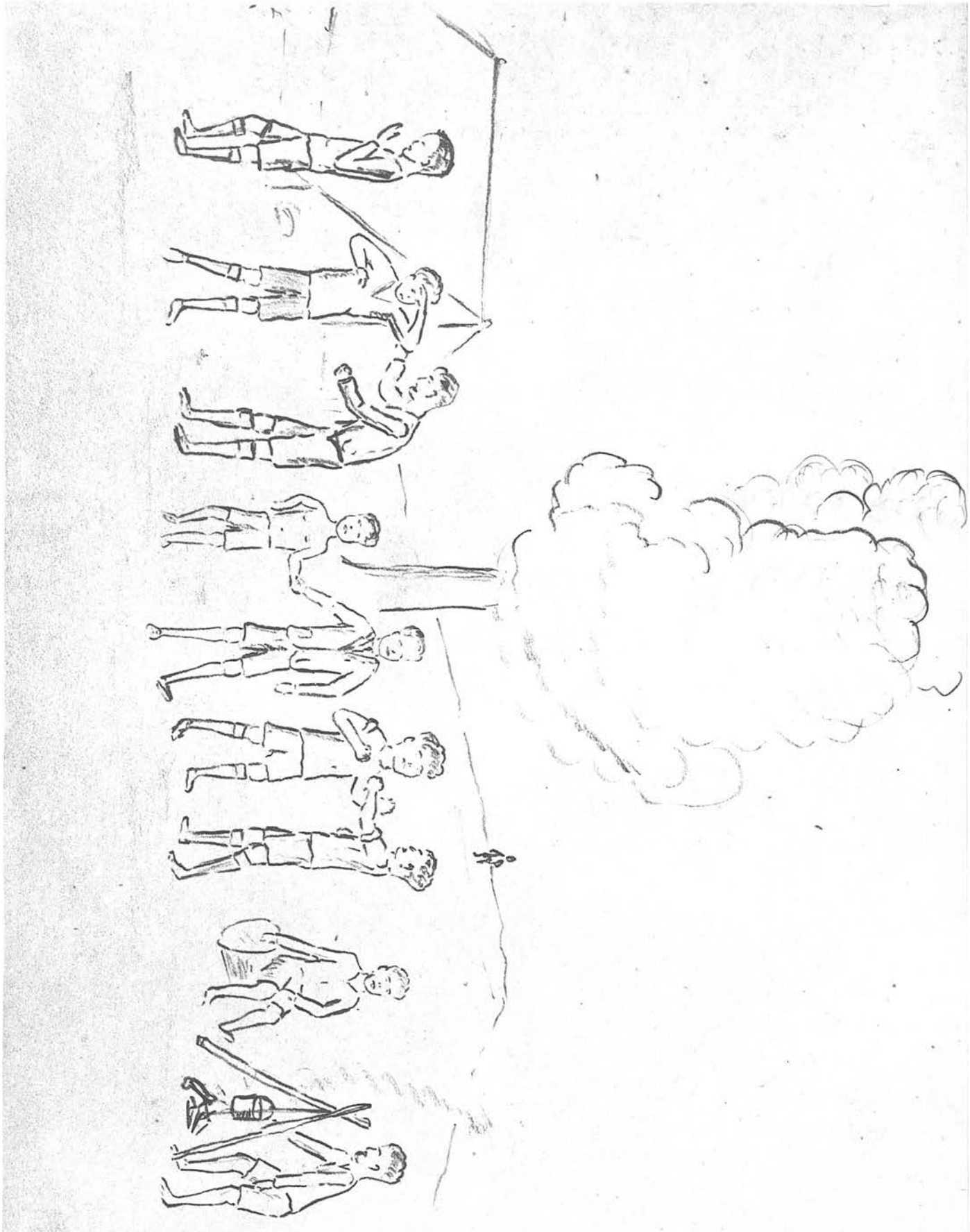
d. What did Henry do then?

Later that day Henry wanted to go exploring on the beach, and he asked some of them to go with him;

e. What did they say to him?

f. What did he do then?

Note: the titles are given for convenience of identification of the pictures. They were not transmitted to the children.



C.T.A.T. 2. THE HOME.

a. Who are the people we see in this picture?

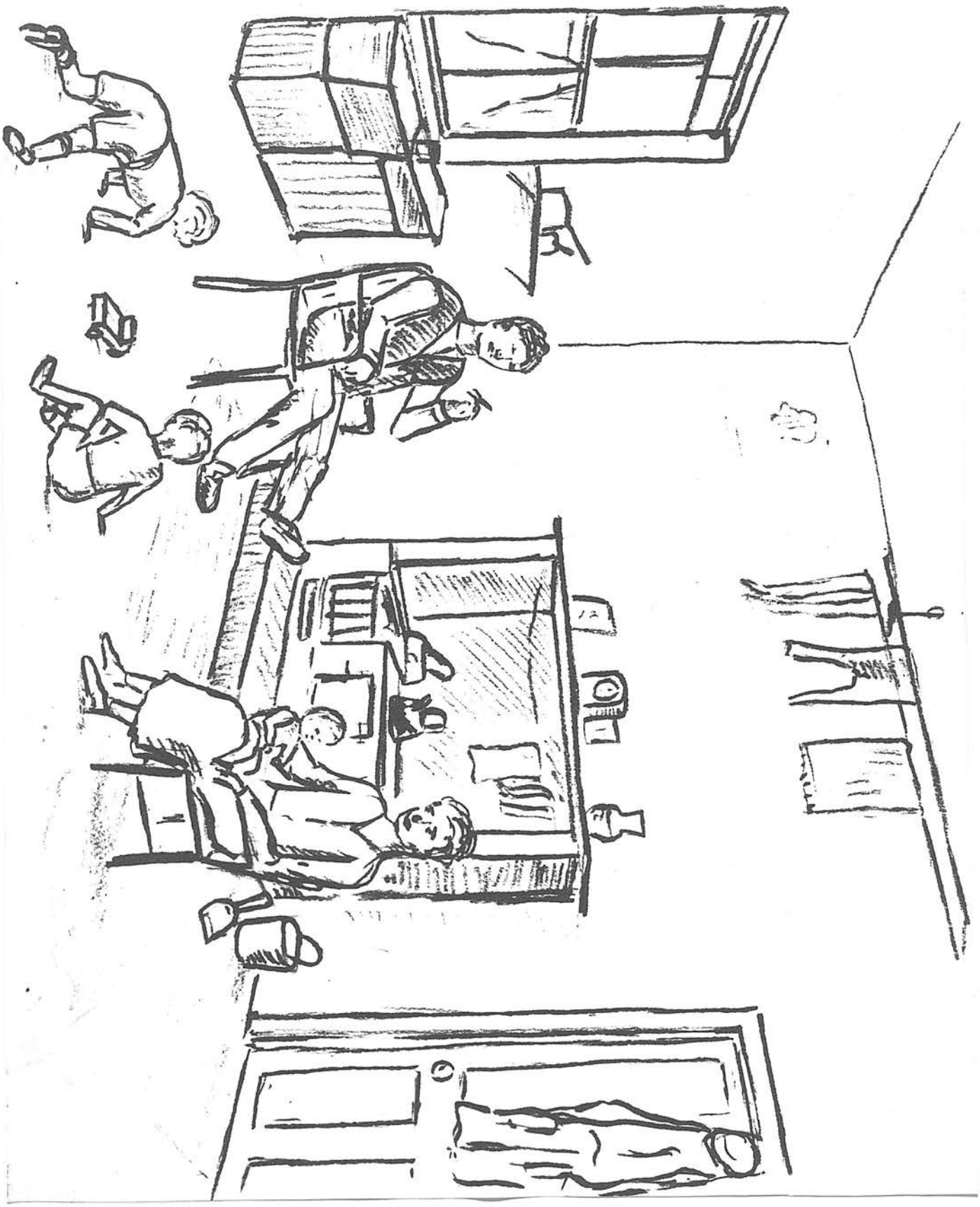
The (man) is talking to the (woman);

b. What is he saying?

c. Are the children happy in the home?

d. Why are they happy/unhappy?

Note: the identity given to the adults by the subject is used in the narrative.



C.T.A.T. 3. FRUSTRATION.

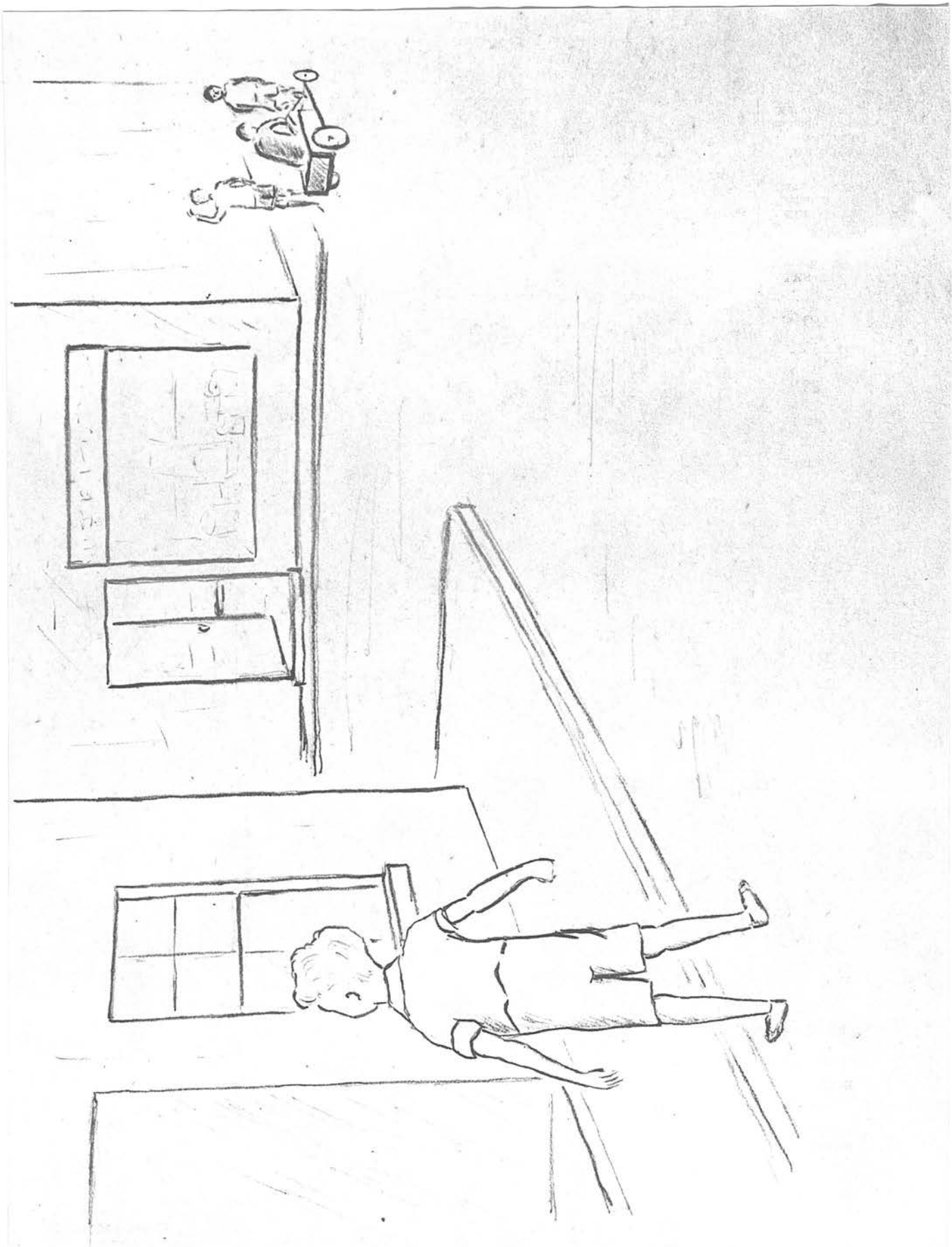
Charlie came out of his door, and he saw some of his pals with their new bogie. They called to him to come with them, but just as he was going, someone called from the house, Charlie, come here at once!

a. Who called him?

b. What did he think about being called back?

c. What did he do?

d. What happened then?



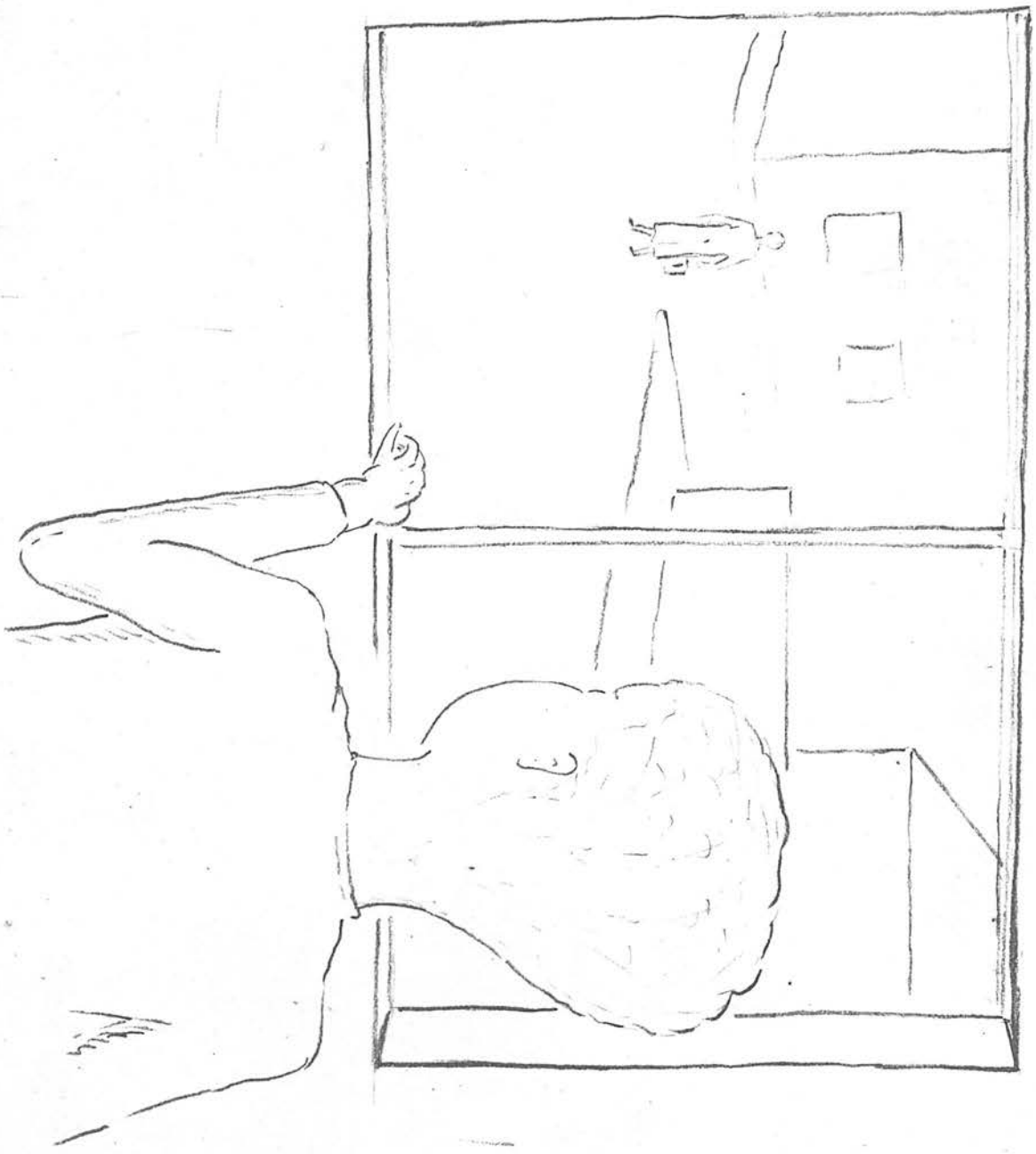
C.T.A.T. 4. THE WINDOW.

John heard the street door shut, and he ran to the window and looked out;

a. Who does he see?

b. Where is he/she going?

c. Then what happened?



C.T.A.T. 5. THE MEETING.

One day the boy that we see in this picture went away from his home to stay in the country.

a. Why did he go away?

Well, when he got to the country he found things strange at first, but he got used to it.

b. What did he like best about the country?

c.. Who were the people he stayed with?

One day, he was walking along the road near the house, and he was feeling sad and lonely;

d. Why was he sad?

As he came to the corner of the road that came from the station, he saw coming up the road towards him;

e. Who did he see?

f. Why had he/she come?

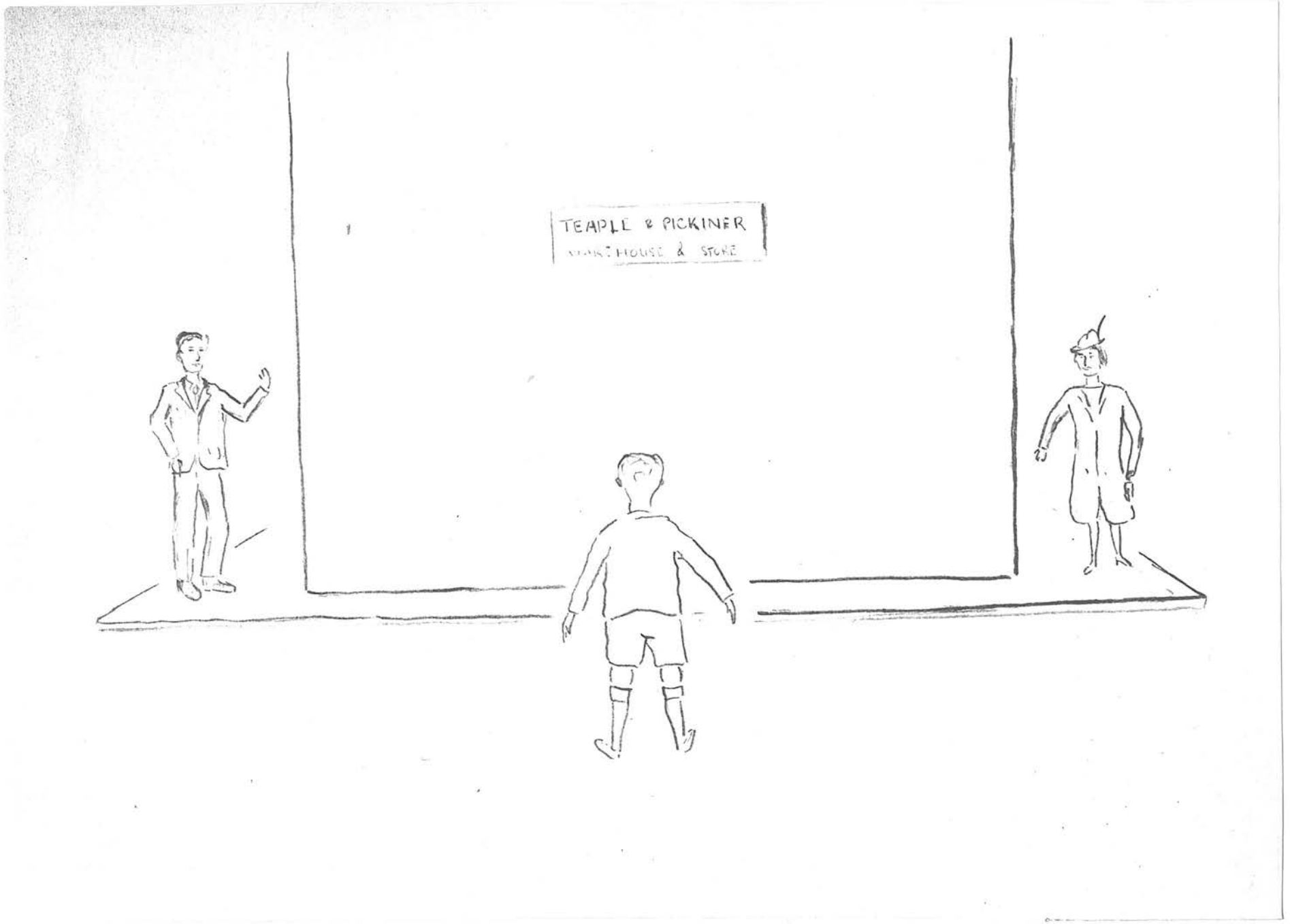


C.T.A.T. 6. THE DECISION.

James came running out of his house, and there, coming round opposite ends of the building were his mother and his father. They did not notice each other, but they both saw him, and called to him to go with them. So James had to decide which to go with.

a. Whom did he choose?

b. Why?


TEAPLE & PICKINER
MARK HOUSE & STONE

C.T.A.T. 7. THE STERN MOTHER.

a. Tell me what is happening here.



C.T.A.T. 8. THE RUNNER.

a. Why is this boy running along the road? What has happened to make him hurry so?



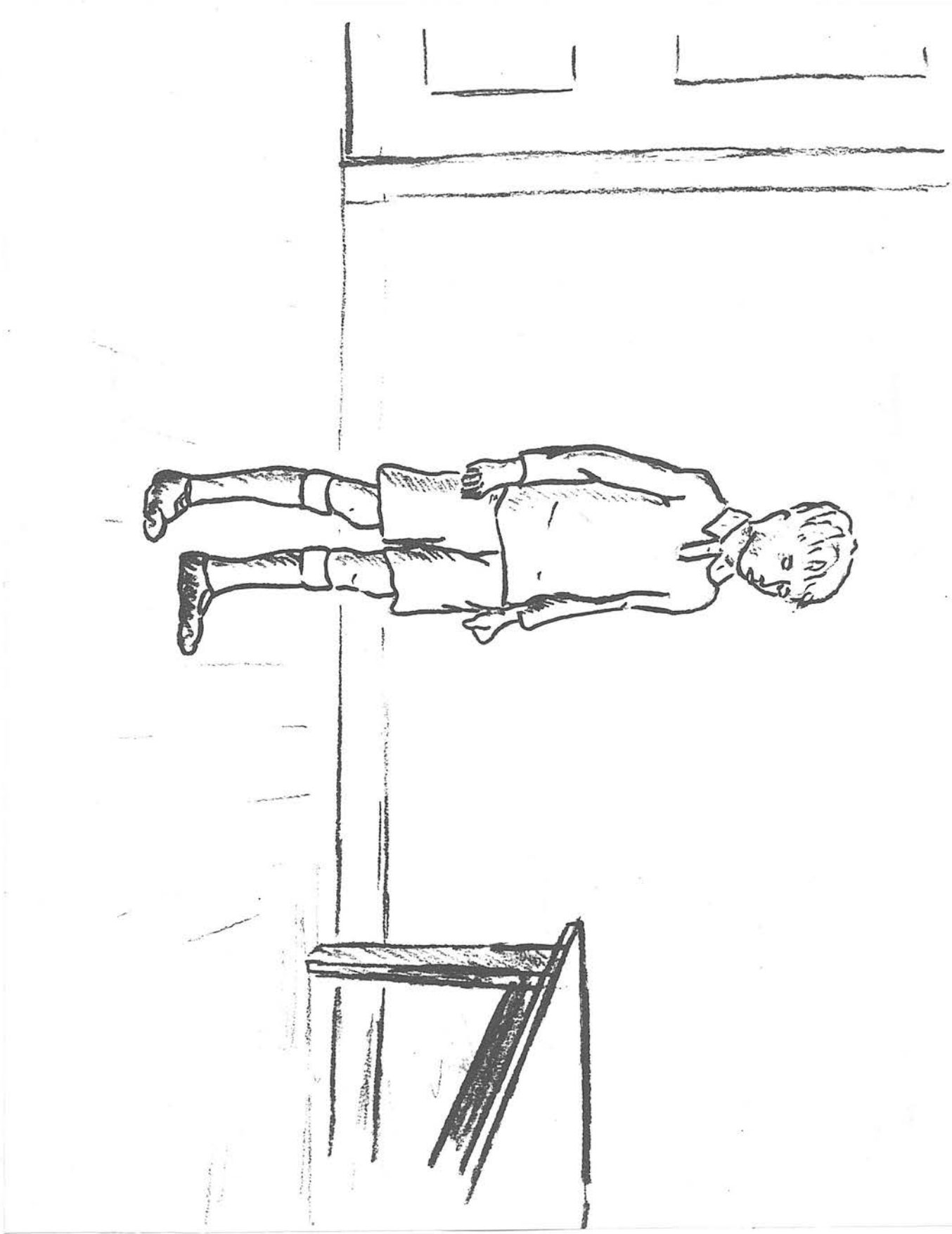
C.T.A.T. 9. THE MISCREANT.

This boy is speaking to someone in the room;

a. To whom is he speaking?

b. What is he saying?

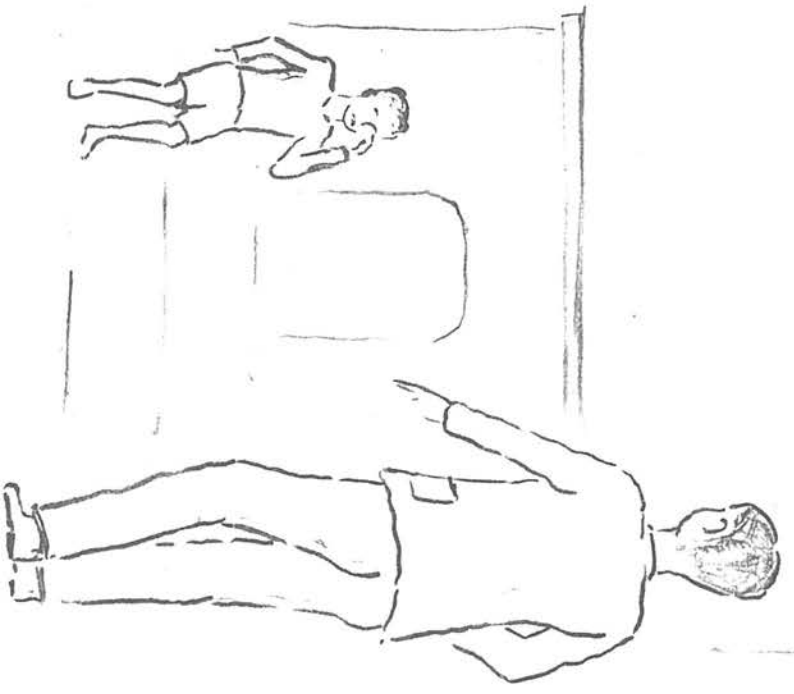
c. What is.....saying to him?



C.T.A.T. 10. THE STERN FATHER.

a. Tell me what is happening here.





In the original plan for this study it was intended to extend the study of 'm' and 'f' differences to wider aspects of personality. It seemed reasonable to suppose that methods of upbringing in 'father' or 'father-absent' environments might result in differences in personality structure and general intellectual development that would be reflected in other psychological measurements. There are no strong grounds for such a supposition, but at least it appeared feasible that differences between the M and F groups might appear, and the possibility was worth examining.

In point of fact no statistically significant differences were found between the M and F groups on any of the remaining tests applied, including the Rorschach. In the intelligence tests the M-group consistently showed a slight superiority over the F-group, but in none did it even approach an acceptable level of significance.

So far as the particular measures used in this study are concerned, the M and F groups showed no differences apart from those already mentioned. Whilst this is a negative result, it is a useful one in defining the limits within which the 'm-f' factors are operative.

The fact that no other differences were found in the study does not, of course, preclude the possibility that other differences exist, for the study does not claim to be exhaustive. A particularly interesting and important

question is the later history of children brought up under the M and F conditions, and a follow-up study of these children would be most useful. An attack on the problem along these lines might well be the subject of another project.

The fact that no statistically valid differences between M and F groups was found should be understood in the following sections, for the material was examined for differences, although to avoid unnecessary repetition no further reference is made to this fact.

In the following sections the M and F groups are not considered in opposition, but are combined: the material is used as a study of a group of children brought up from early infancy under institution conditions, without reference to 'm' or 'f' factors. A number of other workers have made similar studies, but such are not sufficiently numerous to make another one redundant. In general the results presented here are in support of earlier findings (as reported elsewhere in this thesis), and for the first time a Scottish population is added to the English, American and Continental groups reported in other studies.

The Wechsler Intelligence Scale for Children.

Since this test has not been widely used in this country, a brief description might not be redundant. Generically it is related to the more familiar Wechsler-Bellevue Scale for adults, and it is essentially an adaptation of this scale for use with a younger age-range: many of the items are taken direct from the easier sections of Part II of this test. They have, of course, been restandardised.

The rationale of the test, and particulars of its standardisation are given in the Manual of instructions, (Wechsler, 1949). It is of interest to note that the significance of many of the items common to the Children's and Adult scales is quite different in the two cases.

The concept of mental age is abandoned in the WISC to avoid the difficulties inherent in it. The I.Q's are obtained by comparing the individual with a group composed of individuals of the same age-range, instead of with a composite population of wide range of age. Thus a ten-year-old child is compared with a sample of children whose ages range narrowly round 10½ years, between 10 years 4 months 15 days and 10 years 7 months 15 days. 100 boys and 100 girls were included for each age-group sample. The samples were chosen to represent in correct proportion

to their occurrence in the total population of the United States, children from the various geographical regions and socio-economic statuses as defined by occupation of father. Feeble-minded children, in correct proportion, were included. All the children were white, and the complete sample comprised 2200 children from 5½ to 15½ years.

The design of the test is based on Wechsler's global concept of intelligence. He points out that it is not possible to equate general intelligence with intellectual ability: intelligence is part of a larger whole, personality itself. Tests that have been designed to eliminate other factors and to be sensitive only to intellectual ability have usually had a reduced validity as measures of general intelligence (naturally enough, if, as Wechsler claims, the two are not identifiable). "The theory underlying the WISC is that intelligence cannot be separated from the rest of the personality, and a deliberate attempt has been made to take into account the other factors which contribute to the total effective intelligence of the individual." (p.5).

The WISC is made up of twelve sub-tests, 6 Verbal and 6 Performance. Most of the verbal items correlate better with each other than with the performance group, and vice versa. These tests include the non-intellective factors

in intelligence. In giving the test to the standardisation sample, all 6 tests were given, but to shorten the scale the I.Q. tables are calculated on the basis of 5 verbal and 5 performance items. The tests omitted in making the I.Q. tables were Digit Span and Mazes. It is suggested that these tests have diagnostic usefulness, and they may be given as clinical aids. Pro-rating tables are provided to permit the calculation of I.Q's from 4 or 6 items on each of the two half-scales.

The subtests are as follows:

Verbal	Performance
1. General Information	1. Picture Completion
2. General Comprehension	2. Picture Arrangement
3. Arithmetic	3. Block Design
4. Similarities	4. Object Assembly
5. Vocabulary	5. Coding
(6. Digits).	(6. Mazes).

Details of the inter-test correlations and reliabilities are given in the Manual. The reliabilities of the sub-tests vary between .59 and .84, but the half-scales and full-scale are highly reliable (Verbal Scale = .88, Performance Scale = .86, Full Scale = .92 at 7½ years, with rather higher figures for 10½ and 13½, the ages tested for reliability).

Instructions for both administration and scoring of the

Suggested Standard Modifications.

Information.

2 omit 'finger'
3 how many legs has a dog?
6 substitute 'shop' for 'store'
7 substitute 'shilling' for 'nickel'
17 what is celebrated on November 5th?
19 how tall is the average British man?
24 how far is it from London to Edinburgh?
25 substitute 'August Bank Holiday' for 'Labour Day'
(accepted answer: First Monday in August)

Comprehension

5 substitute 'railway line' for 'track'
11 why should most civil service positions be filled through examinations?
13 why do we elect members of Parliament?

Arithmetic

8 At 7d. each how many pennies will 3 cigars cost?
11 A workman earned £36; he was paid £4 a week. How many weeks did he work?
12 If you buy 3 dozen tennis balls at 30/- a dozen, how much change would you get back from 100/-?
14 If 3 pencils cost 5d. how many pennies will 24 pencils cost?
15 If the hire of a machine costs 20/- for the first quarter of an hour and 5/- for each quarter of an hour thereafter, what will be the hire for two hours?
16 Substitute '27 shillings' for '27 dollars'.

Vocabulary

21 substitute 'dollar' for 'shilling'

Similarities

5 substitute 'cherry' for 'peach'
10 substitute 'ounze' for 'pound'

Object Assembly

substitute 'girl' for 'boy'

tests are given in the Manual. Raw scores are given for the sub-tests (time-bonuses being added where appropriate). Their raw scores are translated into scaled scores from tables provided for each three-month interval of chronological age from 5 years to 15 years 11 months. The sum of the scaled scores on Verbal, Performance and Full Scales are converted into I.Q's from another table.

The scaled scores are so calculated that for each subtest the mean is 10 and the standard deviation 3. The scales range from 0 to 20. A score of 10 therefore falls at the 50th percentile.

Certain items of the sub-tests are unsuitable to a British population, and alterations were made based upon the Australian adaptation of the test as far as possible, though some of these were also unsuitable. Since the completion of this work the British Psychological Society (Committee of Professional Psychologists) has published some suggested amendments (reproduced below) which agree almost entirely with the ones privately used. The only discrepancies are as follows: in Information 2, the question was given as in the original, in Information 25, where no suitable alternative to Labor Day suggested itself, and the question was omitted. (August Bank holiday, suggested by the B.P.S., does not seem entirely suitable for use with Scottish children, but is perhaps the best

alternative possible). Similarities 5 was given as it stands. For question 7, Beer and Wine seemed inappropriate to a community with such strong teetotal traditions as that in which the study was made, and most children appeared ignorant of wine in particular. Tea and cocoa were substituted and a little license taken with the scoring: two acceptable similarities were scored 2, one was scored 1.

On the basis of the experience of Mr. Todd (Psychologist, Kingswood Classifying School, private communication), Picture Completion was discontinued at 7 failures instead of 4.

It was suggested in Chapter 17 of Volume One that a number of factors operate in causing the observed deficiencies of institution children, including the unstimulating nature of the environment. In particular the child may lack the opportunity of 'question-and-answer' that a more fortunate one enjoys with the parents. Access to newspapers, reading material and other sources of information is restricted. A large proportion of the child's time is spent with his peers rather than adults, and the growth of vocabulary is therefore slow. All these factors tend to restrict a child's information, vocabularly, powers of expression, and his ability to manipulate verbal concepts. Even arithmetical matters may be restricted, owing to less practical experience of buying and selling, of handling money and having

day to day contact with much that is familiar to children in more ordinary circumstances. A verbal test, such as the Terman-Merrill, is therefore likely to place these children at a disadvantage and it may not give a true measure of the child's innate potentialities. Such a test presupposes normal contact with the culture, and these children have not had this.

The possibility that one has in mind is similar to that found in testing children with atypical experience, barge-children, or those in very isolated rural districts, for example. Such children have been shown to perform well below potentiality on the Binet tests and others of a similar nature, but to make a better showing on a test which does not presuppose certain experiences which are in fact available only to more urban children.

Whilst the institution environment differs from the normal family one in a variety of ways, the cultural factor which is most relevant to the question of formal intelligence testing is probably what might be called the 'verbal deficiencies' of the institution setting. Since there can be no such thing as a culture-free test of intelligence, no test can be applied which is uninfluenced by cultural factors. But as an ad hoc supposition it seems reasonable to expect that whilst an institution population might be handicapped to some extent on any test standardised on a population with more normal cultural experience, the

handicap would be greatest on the more verbal tests.

The WISC appears to offer a useful line on this problem because it is in two parts, Verbal and Performance, and the latter would presumably be less affected by those factors mentioned above than the verbal sections. Hence we might expect the children of this study to score higher on the Performance Scale than the Verbal.

It cannot be supposed that the Performance Scale is culture-free, but it is not unreasonable to suppose that the cultural differences between institution and family-reared children are such as to influence the Verbal Scale more than the Performance Scale, and we might therefore expect the latter to give a truer measure of these children's intellectual status, provided the sort of factors suggested above are in fact operative more or less exclusively, and that other 'non-intellective' factors are constant.

Results of the WISC.

On the Full-Scale of the WISC both the M and the F group scored an average I.Q. of 79 (the precise figures being 79.38 and 79.90 respectively, with no statistical difference). The exact mean I.Q. of the total MF group was 79.63, and the range 62 to 103.

On the WISC Verbal Scale the groups scored somewhat higher, though again with no difference between the two

groups: the mean score was exactly 83.

On the Performance Scale the scores were again almost identical, and the mean for the total group was 79.68.

The expectation that there might be a better score on the Performance half of the test than the Verbal half is clearly not met, the scores on the Verbal part being actually higher than on the Performance half, although the difference between the means is not statistically significant.

The mean scores of the total FM-group on the subtests are as follows:

Verbal.	
Information	7.51
Comprehension	6.85
Arithmetic	9.00
Similarities	6.68
Vocabulary	6.27
Performance.	
Picture Completion	7.00
Picture Arrangement	5.80
Block Design	9.00
Object Assembly	6.00
Coding	7.71

Examining the figures for the Performance subtests, it might perhaps be argued that Block Design is the least culturally dependent item, and this has the highest score, whereas the most culturally saturated item, Picture Arrangement, has the lowest. Tempting as this supposition might be, since it is in line with the expected

results, the facts are more likely to be that these two items are those on which the norms are least satisfactory with a British population.

The mean scores on the WISC Verbal Scale and the Terman-Merrill are very close, both averaging 83, but the correlation between them is not very high, being ·75 (p.e. ·059).

These findings appear to make it unlikely that the low scores of institution children can be explained by the 'verbal deficiency' of the environment alone. In Chapter 17 of Volume One, four factors were suggested as important in the mental impoverishment of institution children:

i. Heredity.
ii. The primitivisation of personality in early infancy.
iii. An educational defect, due to an unstimulating environment in later infancy and childhood.
iv. Inhibition of intellectual performance by emotional blocking.

The third of these is apparently not a sole factor. The discussion in Volume One leads us to rule out the fourth, for this implies the inhibition or depression of a sometime operative higher intellectual functioning: these children have not regressed under anxiety, but never have progressed. Thus it seems that i and ii are the original factors involved (how to separate these is an unsolved problem of research), with iii as a later-added factor.

Whereas the low score on the Verbal half of the test is explained by the later verbal deficiencies of the institution

environment, that on the Performance scale is due to influences on more fundamental 'non-intellective' factors. One probably involved is motivation. In the Performance items of the test the child is set a task and left to get on with it, which happens less in the Verbal items, where the child is constantly prodded by questions. Poor motivation (which is typical of the institution child) might therefore influence the Performance test results more than the Verbal ones.

Timing is important in the scoring of the Performance tests, whereas it operates in only one of the Verbal tests, and the speed factor would therefore have greater influence on the latter. Whether speed is in the same class as motivation is debatable: what is meant here is not so much innate 'nervous reactivity' as a cultural attitude to time: 'hustle' is a feature of urban life not shared to the same extent by these children.*

Although the present work offers nothing to prove such a statement, it is feasible that different factors (of about equal potency) account for the depression of scores on the two halves of this test, in the one case the 'verbal deficiencies' of the environment, and in the other influences on certain 'non-intellective' factors of intelligence. This view ignores the factor of heredity: whilst heredity possibly (and indeed, probably

*See appendix 1. page 195.

plays some part in the low intellectual level of institution children, the author is convinced that it is not the only factor involved, and that the factors of acculturation discussed in Volume One are important determinants of the level of intellectual functioning. If this is the case, then the research problem becomes even more complex, for it is necessary not only to separate innate and environmental factors, but within the latter to distinguish factors which influence performance on verbal and non-verbal tests of intellectual functioning.

A Comparison of the WISC and Terman-Merrill Tests.

As stated in the previous section, the WISC was administered for the possibility it held, in its Performance Scale, of giving a fairer test for children in verbally handicapped circumstances. Since the test has been relatively little used in this country, some discussion of the author's experience might be of value.

The correlation between the Terman-Merrill Test (Form L) and the WISC (Full scale) as applied to the 41 children of this study was quite high, being .90 (p.e. .02). This is rather to be expected, owing to the homogenous nature of the group. Other studies with more diverse

children have revealed somewhat lower correlations, Cohen and Collier reporting one of .85 when the tests were applied to 255 ordinary schoolchildren aged 6 to 8 years. Weider, Noller and Schramm found a correlation of .89 with children aged 5 to 12.

In the present study the Terman-Merrill scores were slightly higher than the WISC, averaging 83 against 79. Weider, Noller and Schramm found a similar result, although Nale, working with defectives, reports the reverse.

As might be expected, the correlations between the Terman-Merrill test and the WISC Verbal is closer than with the WISC Performance. Some comparisons are as follows:

	Correlation between Terman-Merrill and WISC V	WISC P
Present study	.75 ± .059	.68 ± .057
Cohen and Collier	.82	.80
Weider, Noller, Schramm	.89 ± .02	.77 ± .04

Sloan and Schneider, using the tests with defectives, report similar trends.

Pastovic and Guthrie examined the validity of the WISC by comparison with the Terman-Merrill Form L, and they found the Binet I.Q's to exceed the WISC scores, particularly at the lower age-levels when children of 5½ were compared

with those of 7½. From the results of a number of unpublished studies, they suggest that the scores on the two tests are not to be regarded as equivalent below the age of 10 years.

Administration of the Two Tests.

The WISC takes rather longer to administer than the Binet, which is an important consideration in practice, although the two halves can be given on separate occasions. If one merely requires an I.Q. the WISC does not appear to have any particular advantage over the Binet, but in certain clinical situations the WISC probably offers more information over and above the bare I.Q. An advantage of the WISC that is becoming increasingly important is the fact that its circulation is limited to qualified persons. With the Terman-Merrill material so readily available one frequently finds that a child has already been tested by some amateur, and the question of practice effects comes into the results. More important is the loss of incentive that seems to overcome some children when, as they say, "they've done that before."

If the WISC is to come into more general use (as doubtless it will) then a restandardisation for British children will be required. With suitable adaptations the

Verbal half seems quite easily applied to British children, but some of the Performance material is not entirely satisfactory. In particular the Picture-arrangement sub-test leaves something to be desired. Some of the 'stories' are weak, and in one or two cases logically defensible 'plots' can be made by arrangements that are scored zero in the existing norms. These alternatives are not infrequently disconcerting to the brighter child who sees both, and hesitates between them, thereby being penalised on the time-bonuses.

Whilst the opportunity for carefully controlled comparisons has not arisen, the writer suspects from his personal experience with the test that the Arithmetic sub-test in the Verbal half is too easy for British children, and that Block Designs in the Performance half is also too easy, so that the scores obtained on these items often are unduly high in relation to the others. This was found in the present study, and has been noted with other groups also.

A Measure of 'Social Intelligence'

One is perhaps running into some difficult questions of terminology in discussing such a matter. What the author has in mind is the ability to interpret social situations, to understand the feelings and the motives of others. These matters are necessarily very complex, and any attempt at measuring them, especially under laboratory conditions, offers very considerable difficulties. It was decided to tackle this problem by asking the child to interpret drawings depicting definite social situations, or to interpret the motives or feelings of persons in drawings. A number of assumptions are made in this, the first being that the ability to recognise the social import of specific drawings correlates with the ability to interpret real-life situations. An obvious difference exists between examining a drawing and being a participant in a social situation, but possibly there is less difference between the former and assessing a real social event in an onlooker capacity.

Another important question is the accuracy of a drawing in conveying a social situation at all. We are informed by social anthropologists that some primitive peoples find it difficult to interpret pictures, even when they show scenes or objects that are familiar to them in real life. Certain conventions in pictorial representation are so much accepted by ourselves as to seem entirely self-evident, and adults

tend to regard them as part of the natural order of things rather than as conventional. On the other hand, the young child seems to need to learn to interpret pictures: for example he appears to be indifferent to the way up a picture is presented, and will quite contentedly look through an upsidedown picture book. Whilst he may recognise familiar objects in any position, he is handicapped in the interpretation of more complex pictures until he has learned the convention of 'top of the page uppermost'. Factors of this sort probably account for the difficulties noted among primitive adults who are quite unfamiliar with pictorial art, but unfortunately the evidence available is anecdotal and not systematic. The history of art shows that the pictorial representation of his environment is a thing that man has acquired only by a long and difficult process; for instance, the rules of perspective are simple enough to those with a little training, but an understanding of them involved centuries of experiment. Rather complex cultural factors undoubtedly enter into the question of pictorial representation, and they possibly have a bearing on the present problem. The drawings of modern humorous artists have achieved a degree of simplification which is quite astonishing, and a few strokes of the pen serve to portray complex attitudes. Whilst sophisticated subjects have no difficulty in understanding these highly conventionalised drawings, it may be that others do not so readily interpret

them for lack of experience of the technique. If this is the case, then in the present test such subjects may fail for reasons that are only partially relevant to the essential aims of the test. Their failure may not reflect so much a lack of 'social intelligence', but a different cultural background. The concept of 'social intelligence' cannot, of course, be considered in isolation, and is closely related to cultural factors, so that comparison can be made only among groups having a common cultural background.

This is a point which did not occur to the writer whilst in the field, and has arisen only in considering the results afterwards. He has therefore not made an empirical study of the question, although this may be important to an understanding of the technique. In looking over the responses, it seems possible that the failure of some subjects in some items might be explained in the terms suggested, but a special study would be needed to decide this point. On the whole the subjects used, both in the experimental group and the controls, are probably comparable so far as the operative cultural factors are concerned, and the following discussion is based upon this assumption.

Whilst some tests have been produced purporting to measure the sort of factors we are at present interested in, none appears to be satisfactory, and in any case are unsuitable to a British population (for example, the Vineland Social

Maturity Scale). They are also of a verbal nature, questionnaires, and the like. In approaching this problem one has little in the way of experimental data or established techniques as guides, and one has to adopt, more or less, the crude method of 'kick it, and see what happens'.

The material used is reproduced in the following pages, and an examination of this will make clearer than any description the sort of thing that is being measured.

A number of drawings were selected which (in the author's opinion) showed a quite definite social situation which was plain without the addition either of explanation or caption. Most of them came from Punch, but it must be emphasised that the object of the test is not to measure the sense of humour. The drawings in this journal have a two-fold aim, firstly to depict a definite situation, and secondly (and correlatively) to make the viewer laugh. One can presumably understand the picture without thinking it funny, and the aim of the test is to measure the first without regard to the second. The pictures were selected for qualities of clarity, not of risibility, and full marks can be scored without the flicker of a smile.

The following scoring scheme was adopted in quantifying the results. It is open to certain objections in the light of experience, and both the test itself and the method of scoring would be modified slightly in future use.

The material of the S.I.T. follows.

S.I. TEST. SORTING.

I want you to look at these pictures, and put all the happy people here (indicating a place on the subject's left), and all the sad ones here (indicating a place on the right).



A



B



C



E



F



G

The cards were shuffled and placed in a pile before the subject.

S.I.TEST. EXPRESSIONS.

I am going to show you some pictures of people with different looks on their faces, and I want you to tell me just how they are feeling, whether they are happy or sad, or angry, or shy, or whatever it may be. Tell me as closely as you can; for example, there is a difference between a man who is angry and one who is just annoyed. Tell me as near as you can how they feel.

The pictures were shown one by one in the following order, the smaller ones being pasted in a book for convenience. Pictures 1 and 10 are in colour in the original, the rest were black and white line drawings, mostly from advertisements. They are reproduced full-size.

Expressions 1 (opposite).

How is this boy feeling? (indicating the goalkeeper clearly by placing the finger on him. If the child responded to the wrong figure, the goalkeeper was again pointed out to him and the question repeated).

Ex 1.



-117c-

Expressions 2. (opposite)

The young man was indicated to the subject.

S.I. TEST. EXPRESSIONS.

3. How are they feeling?

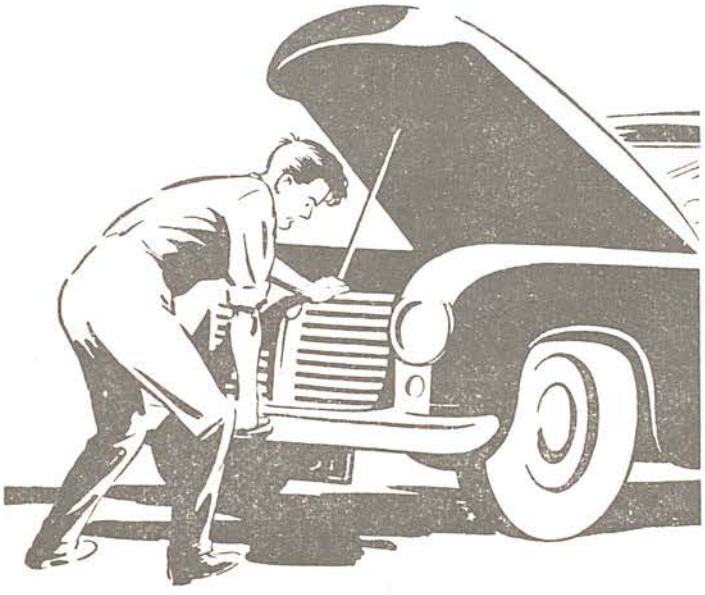
4. as before

5. as before

6. The man winding the car is indicated to the subject.



3.



4



5



6

Will she get well,
Doctor?



7



8



9

S.I. TEST. EXPRESSIONS.

7. The boy is indicated.

8. The boy is indicated.

9. Both are indicated.

10. (overleaf) The man is indicated, and the subject asked, Is he pleased to see the girl?

S.I. TEST. SITUATIONS.

The pictures were shown to the child, who was asked to say what was happening.



"No, dear, I only just glanced at the headlines."

535

SITUATIONS 1.

SIT. 2.



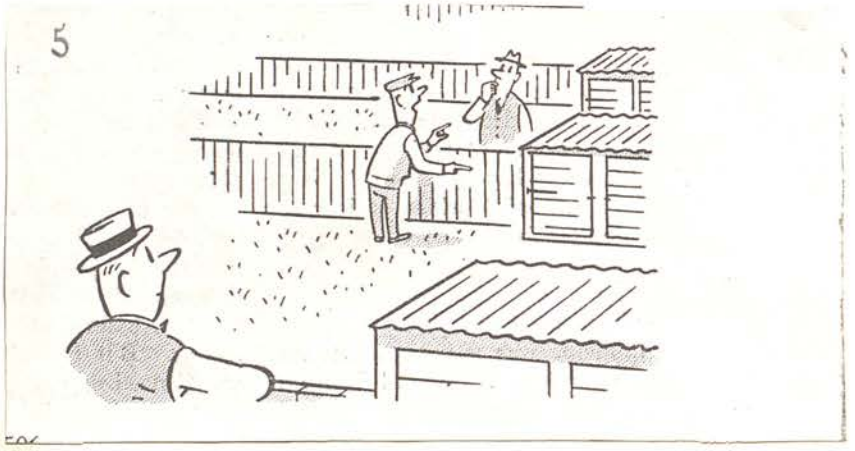
SITUATIONS 3. (The pictures were presented at once, as shown).

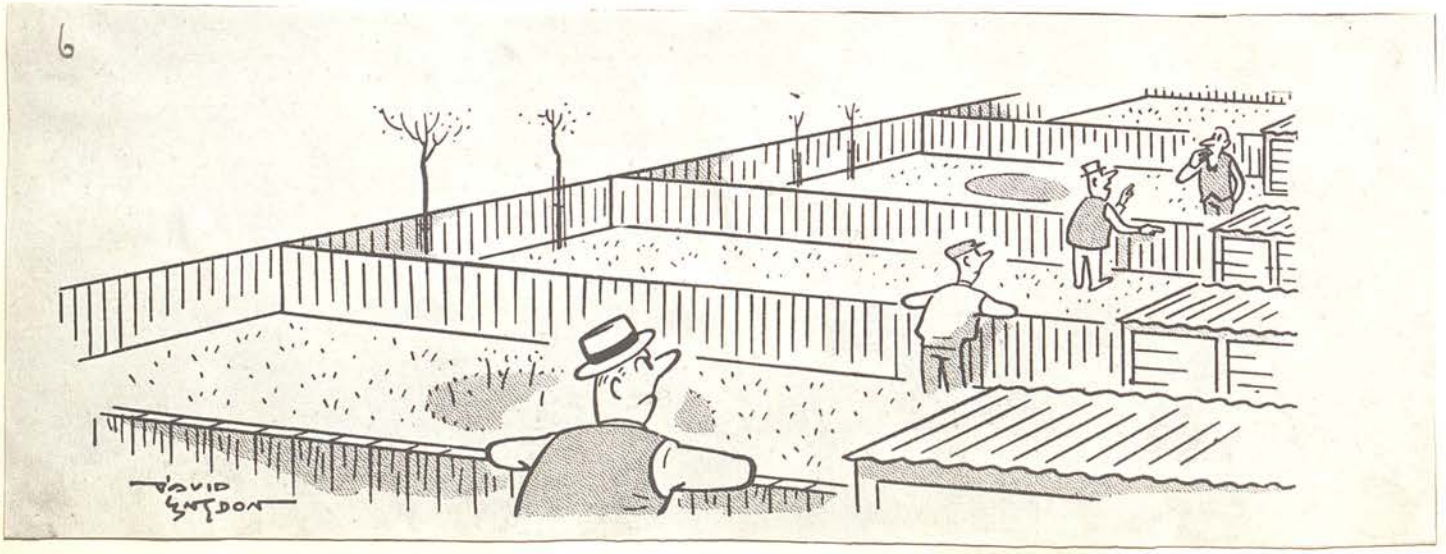












S.I.TEST. 4. THE GARDENER.

Pictures 1 to 4 were laid out before the subject in one line from left to right. He was then told,

These pictures tell a little story; I have put out the first four in the right order, and I want you to put the other four in the right order to finish the story.

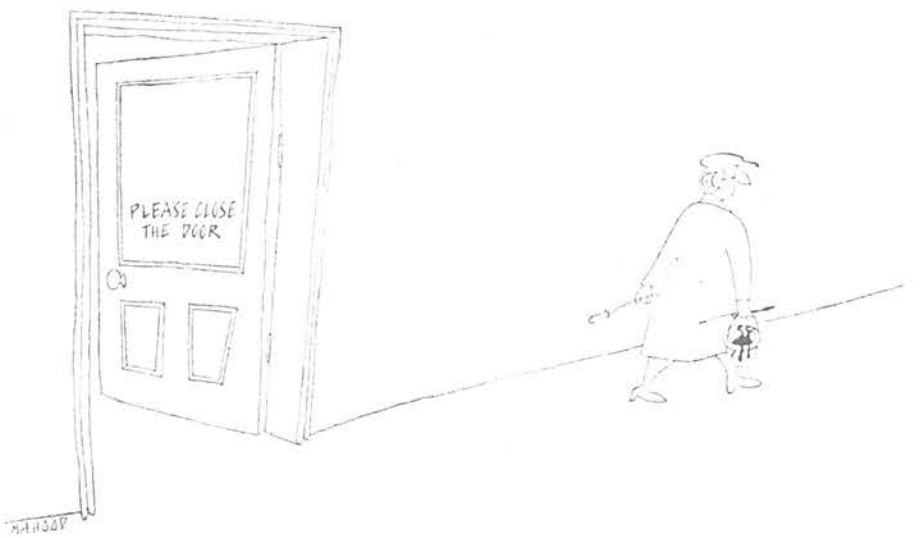
The remaining pictures were then presented to the subject in the order 7, 5, 6, 8. When he had made an arrangement he was asked what the story is.


DAVID
HANSON

S.I. TEST 5. JOKES.

The subject was told, Here are some funny pictures, and I want you to tell me what the joke is.

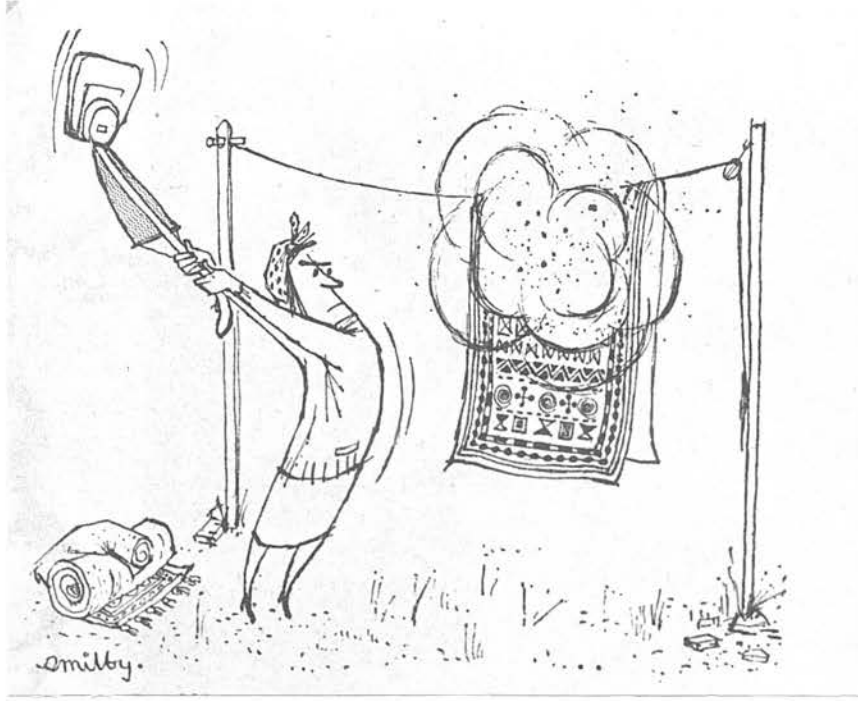
The pictures were presented one by one in the following order.



OH, JOHNNY! *by TIM*



-3-



-4-







Jokes 5. The three pictures were presented together, as shown.



-7-



"Never mind about sweets, dear. Say hello to Grandma."

PUNCH, May 7 1952

-8-



i. Sorting: in order to bring the younger children onto the scale this item was scored generously. 6 points were allowed for a correct sorting, and one deducted for each error.

ii. Expressions: The first was scoredl, 2 or 3 points; 1 point was allowed if the subject said the goalkeeper was afraid of getting hurt, 2 if he was afraid of getting beaten and 3 if definite reference was made to anxiety that a goal might be scored. The remainder scored 1 point each. The expected replies were:

2	angry
3	happy
4	annoyed, puzzled
5	angry
6	embarrassed
7	puzzled, thoughtful
8	scared
9	happy, expectant
10	no

Suitable synonyms (often in the vernacular) were acceptable.

iii. Situations: 1. 3 points were allowed for a response that indicated the man's annoyance at the disarrangement of the paper, and 1 or 2 points for those giving less adequate interpretations.

2. Scored 1 or 2.

3. Scored 1, 2 or 3. The intended interpretation is presumably that the first man remembers that he lent the tool he requires to his neighbour, who lent it to his neighbour, and so on. Although in a

subtle way this seems a less satisfactory explanation, it is logically as defensible to suppose that he wishes to borrow a tool, and that this request is passed down the line: this response scored 3 also.

iv. Gardener. This was scored 4 points for a correct arrangement and explanation, 1 point deducted for each card wrongly placed. No points were scored unless the explanation was satisfactory. (Nearly all subjects scored either 4 or 0).

v. Jokes. 1 point was allowed for each picture. The accepted standards were as follows:

1. The person has not closed the door. (The scoring would be improved by allowing 2 points for an appreciation of the fact that she has just painted the notice).

2. Only two subjects saw the real point of this joke, and a point was allowed for a response stating that it is silly to put a notice in the middle of the field.

3. A point was scored only if the woman's change of mind was indicated.

4. No subject mentioned what is presumably the most subtle explanation, that the cleaner has broken down and that the woman is reduced to using it as an old-fashioned beater. Most subjects said that she did not know how to use it properly, and this was scored.

5. This item proved quite straight-forward, and a point was allowed only for the obvious explanation.

6. A point was allowed only if the explanation stated that the second burglar was too late, the first having already ransacked the house.

7. This was found difficult to explain by most subjects and not many scored.

8. Very few saw the point of this, most saying that the farmer was silly to be in the field with a bull: this was not allowed.

The maximum score is 38 points.

A quantitative scoring system of this kind masks a number of factors of clinical interest, there sometimes being qualitative variations in numerically equal scores, but on the whole the score does give a reasonable index of the performance. Like so many other tests, this one means little in isolation, but becomes valuable as part of a battery in clinical assessment.

A defect in the present scoring system is the manner in which mature additions to the responses are lost. For example, in Expressions 5, most subjects simply stated that the man is angry. A few added spontaneously some reason : 'he's missed his train', 'he can't get into the hotel'. The latter responses obviously show a greater awareness than the former. One feels that spontaneous additions of this sort should receive credit in the scoring, and are of greater value in the present test than additions elicited by asking why the man is

angry. It is not easy to incorporate such points in an objective scoring scheme, however, because extraneous factors are so liable to enter into the giving of spontaneous additions, and it is also introducing further elements of subjectivity into the scoring. Subjective elements already exist in certain parts of the present scoring method, and it was thought undesirable to increase these.

The original plan was to standardise the test on a group of normal children in order to gain a basis of comparison. The time factor proved a handicap in this matter, but the more serious difficulty was that of gaining access to suitable groups of children. Certain abnormal groups are fairly readily available, through such agencies as child guidance clinics or the probation service, but practically the only way to get normal groups is to work in the schools. To get a proper cross-section the school needs to be carefully chosen, or better still, several schools in different localities selected. Whilst Directors of Education are usually willing enough to help research into educational problems, they are understandably rather less sympathetic to studies such as the present one which lies outside their field and is unlikely to make a direct contribution to education in its more limited aspects. The number of different people who make routine visits to schools in connection with medical inspections and other matters is becoming quite large, and Headmasters are

frequently hard-pressed to find them accommodation in these days of overcrowded schools. If a serious retardation of research in Britain due to these difficulties is to be avoided, then research centres such as those in the United States must be set up, and this question is becoming one of some urgency.

As a control group for this experiment boys were taken from two sources*. Twenty-six were taken from a voluntary Home for deprived children, all of whom were deprived after the age of 5 years. Eighteen were obtained from boys on probation who were making their weekly visit to the Probation Office. This group of 44 boys comes from a similar socio-economic background to the MF-group. The Home-group gives an interesting comparison, as it consists of deprived boys living in an 'open' institution. As indicated in the description of the MF-group, they were reared in a self-contained community with relatively little contact with urban life, whereas this part of the control group is made up of boys living in a much smaller community situated in a town. They attend the local schools where they mix with children from their own homes, and they join other children in the activities of the Boys' Brigade and other youth organisations. In view of the insistence of opinion in child care work that 'open'

* I am indebted for these facilities to Mr. J.S. Cairns, Superintendent, Red House Home, Musselburgh, and to Mr. R.H. Edgar, Senior Probation Officer, Edinburgh.

institutions of this kind are much to be preferred, we might expect these boys to show a distinct superiority over the MF-group, especially in the sort of factors involved in the present test.

The test is expected to be sensitive to areas of personality that might be termed 'social awareness', or the ability to understand the motives and feelings of others. As an illustration of the personality differences found in high and low scorers might be cited two cases from the MF-group, F17 and M21. These two boys are of comparable age and intelligence (F17 was 10-10, I.Q. 82, M21 was 11-0, I.Q. 89). Their scores were 26 and 15 respectively, although M21 had the advantage of both age and intelligence. F17 is an extraverted type of boy, and (compared with the norm of an institution population) adaptable in a social situation: in the social sense he is wide-awake. M21, on the other hand, is a much quieter and reserved boy, less at ease with strangers and not particularly forthcoming socially. In selecting a leader one would take F17. The differences in the scores are consistent with the observed differences in the personalities of these boys. Similar comparisons between other pairs has shown that the test consistently differentiates individuals with the sort of personality differences indicated.

The test would plainly be expected to correlate somewhat with both intelligence and age, and both these variables must

be considered in interpreting a score. The following correlations between score and chronological age were obtained:

		r S.I. Score/C.A.		
MF-group	(n=41)	0.74	s.e.	.08
Controls	(n=44)	0.69	s.e.	.078

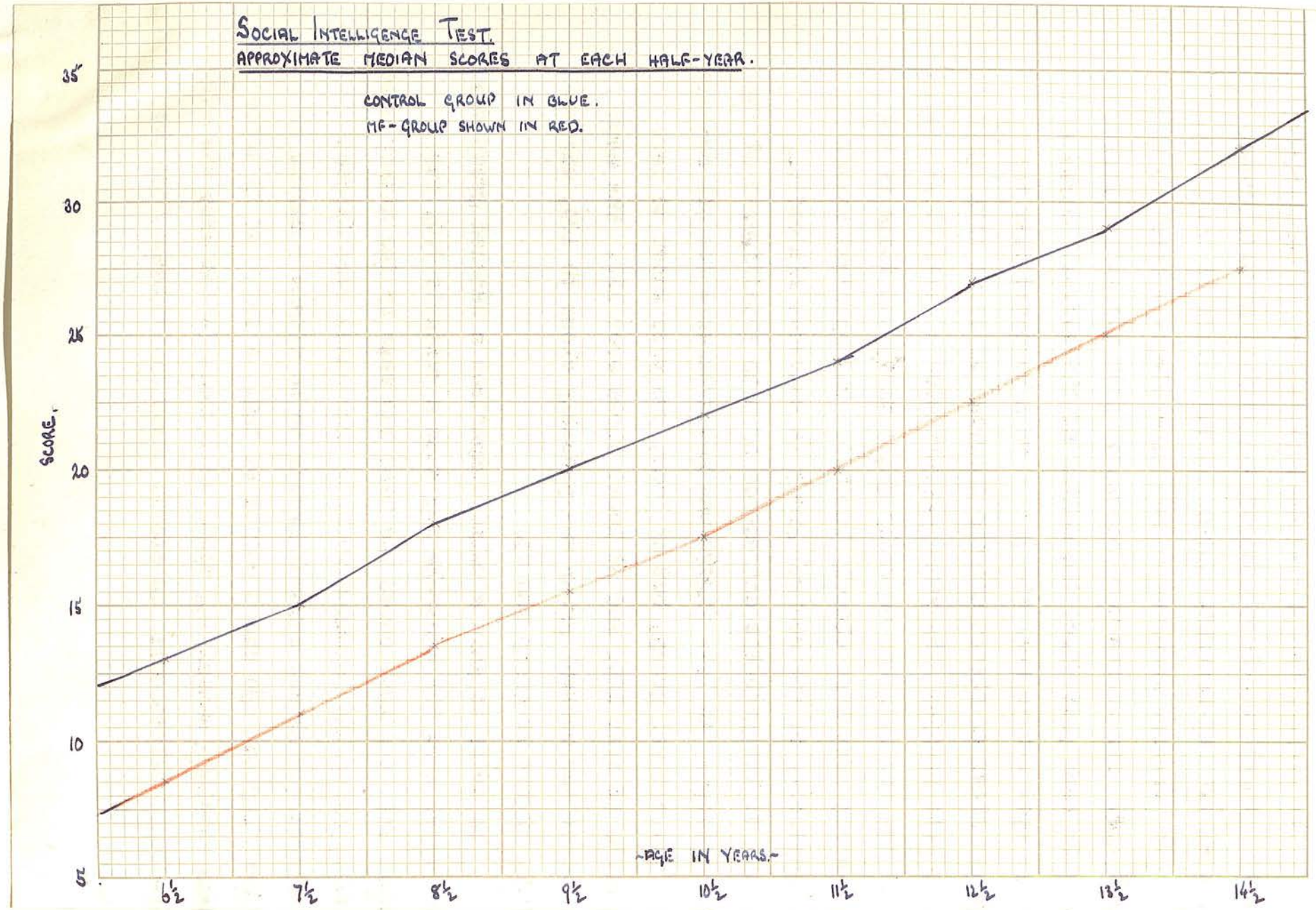
The correlation between the score and mental age (as given by the Terman-Merrill) for the MF-group was 0.74 s.e. .069. The moderate size of these correlations suggests that something partially independent of both age and formal intelligence is being measured, and as indicated above, an examination of the scores in individual cases shows that they are reasonably closely related to certain aspects of personality.

To test the validity of the technique 26 boys from the control group who were resident in a Home for deprived boys were ranked by the Superintendent in order of 'social awareness'. A difficult problem enters into this method with a test such as the present one, because it aims to detect and measure aspects of personality that are ill-defined and complex. It is extremely difficult for two people to be sure that they are assessing the same aspects, or to be certain that either is assessing the factors tapped by the test. Fortunately the Superintendent in question has had training in psychological method, and considerable experience with boys. By discussing the test with him it was possible to be

certain that his assessment was related as closely as might reasonably be expected to the factors covered by the test, and that undue weighting would not be given to extraneous factors such as verbal facility. His assessment was made without knowledge of the scores obtained by the boys. Under these conditions a correlation of .69 was obtained between his assessment and the test-scores (Spearman's rank order formula was used). In view of the difficulties mentioned above, this figure seems satisfactory.

The experience with the test so far obtained does suggest that it is in fact sensitive to certain aspects of personality that might be called 'social intelligence'. These aspects are related to general maturity (i.e. age) and to intellectual maturity as measured by the usual tests of verbal and abstract intelligence, but they are not identifiable with them. Suitably improved and standardised, the technique promises to be useful in the assessment of personality.

There are indications that in its present form the test may reach a ceiling at about 14½ years with average individuals (or younger with brighter children). Certain items are too hard, and are solved by few even at this age, whereas the rest are all too easy to give adequate differentiation. However, the numbers involved at present are too small for certainty in this matter, which requires further study.


SOCIAL INTELLIGENCE TEST.
APPROXIMATE MEDIAN SCORES AT EACH HALF-YEAR.
CONTROL GROUP IN BLUE.
MF-GROUP SHOWN IN RED.
SCORE.
35
30
25
20
15
10
5
6½
7½
8½
9½
10½
11½
12½
13½
14½
AGE IN YEARS.

The graph shows the approximate scores at each half-year from 6½ to 14½ for the MF and control groups. These scores are not accurate norms, as the nature of the groups and the numbers involved do not give adequate data for this purpose. The scores were estimated from the median scores within each year (i.e. the median of the several scores of boys aged 6-0 to 6-11 etc.). It will be noted that the graph shows an almost uniform increase of score with age for both groups; the range of variation of individual scores for the controls was actually quite wide, but those of the MF-group were more closely bunched. The apparent marked superiority of the control group is somewhat misleading, owing to the probable difference of mean intelligence of the two groups. An I.Q. figure was not available for all members of the control group, but at least two were known to have I.Q.'s of over 120, and at least three over 110. The mean I.Q. of the control group was probably close to 100, whereas that of the MF-group was 83.

In order to gain a valid comparison a matched group was selected from the controls for whom a reliable I.Q. was available (in most cases the test was made by the author himself, using the Terman-Merrill). The cases were matched between the MF and control groups to be within 3 months of chronological age and 5 points of I.Q. A total of 15 pairs was obtained satisfying these conditions (which were the only basis of selection); in eleven cases individuals from the

MF-group were matched with partners from the Home controls, and four with delinquents. The following results were obtained:

		Averages of:	
	Age	I.Q.	S.I. score
MF-group	9-10	89.8	15.8
Controls	9-9	89.3	18.6

The controls had a superiority in the mean score of 2.8, but this is not statistically significant.

It is frequently asserted that a poor home (such as that of the delinquents) or an 'open' institution (such as that of the Home controls) is preferable to the type of 'closed' institution treatment experienced by the MF-group. This study, within its limitations, does not give striking proof that there is in fact any real difference: there does not seem to be much to choose between a poor home, an 'open' institution and a 'closed' institution.

A Comparative Study of Early and Later Deprivation.

The material of Volume One leads one to suppose that children having experience of family life in the pre-school years would have an advantage over the children of the MF-group, whose experience is almost exclusively of institution life. At no age does deprivation appear to be without effect, and a child is likely to be influenced by such experience whenever it occurs, but there appears to be a difference in the effects at various stages of development.

Once a child has started on the process of social-isation, then any interruption of this process is likely to result in psychological traumata of a kind which the early-deprived child is spared. Whereas the early-deprived child is 'primitivised', he is not disturbed or neurotic. On the other hand, the later-deprived child is not 'primitivised' or 'unacculturated' in the manner discussed in the first Volume, but may be disturbed or neurotic. Several studies have been reviewed (for example, that by Ripin), in which children from materially very poor homes have been shown to be superior in developmental status to institution-reared infants. Children given the start of a normal home, even a materially poor one, might be expect-ed to have reached a superior level of development, compared with the MF-group, and hence to show a superiority in later developmental criteria. Starting at a higher level, and

then continuing in the same environment as the children already studied, they might be expected at least to maintain a lead, even if not to increase it. Behaviour problems of a neurotic nature might be more common among later-deprived children, but there should not be the same degree of mental primitiveness. The hypothesis to be studied is that the later-deprived child is less retarded in intellectual development than the early-deprived one.

To study this matter all the boys admitted to the Homes between their fourth and fifth birthdays were examined on a number of tests, as listed below. To equate the groups in this respect, known defectives were eliminated according to the same conditions as applied to the MF-group. Since the question of method of care, whether in 'fatherless' or 'father' cottages, does not appear relevant to the question, this factor was ignored. The last pre-school year was chosen as the time of deprivation in order to get the maximum pre-institution experience without the variable factor of school attendance added. Some of the children may have had nursery-school experience, but the same remarks on the poverty of pre-admission history as applied to the MF-group applies to this also. Considerably fewer children were admitted at this age than at infancy, and the group (called for convenience the L-group) numbered 28 boys.

The essential details of the L-group are as follows:

Age on admission ranged from 4-0 to 4-11.
Age at time of study ranged from 6-2 to 15-1.
Mean age of L-group was 10-0.

The L-group was older than the MF-group, but since the measures adopted are scored on an age-equated basis, this does not appear to be a serious consideration.

The mean length of institution experience of the L-group was about 6½ years, that of the MF-group about 8 years. It has been shown in several studies that there is a tendency to a progressive deterioration of intellectual functioning as this experience is prolonged, so that the L-group has an advantage over the MF-group in having some eighteen-months less in the mean time spent in the institution.

Because it was not the purpose of this part of the study to consider such traits as neuroticism, personality tests were not applied. Certain aspects at least of psychological development are reflected in intelligence and attainment, and the following tests of intelligence, and of educational or cultural attainment were applied:

i. Raven's Progressive Matrices (1938 or 1947 version according to age).
ii. Draw-a-Man test.
iii. Free-drawing.
iv. Terman-Merrill Vocabulary test.
v. WISC Vocabulary test.
vi. WISC Information test.
vii. WISC Coding test.

Previous History of L-group.

The reasons for the admission of the boys in this group to the Homes can be classified as follows:

i. Separation or divorce of parents, 5 cases.

ii. Father deserted family, 1 case.

iii. Mother deserted family, 6 cases.

iv. Illegitimate, 4 cases.

v. Father dead, 3 cases. (In one of these the mother is a permanent invalid).

vi. Mother dead, father unable to care for children owing to work, 7 cases.

vii. Care and Protection, 1 case.

viii. Both parents dead, 1 case.

11 of these boys are orphans: in one case the father had attempted to look after the family of 10 children after the mother's death, assisted by his eldest daughter, then 16, but she eventually ran away from home and the father had no alternative but to place the children elsewhere. In another case the mother had died when the child was 13 months old, and the father had looked after the 10 children for 3 years, but as they were were undernourished he was persuaded to place the two youngest in the Homes. Another father had placed the children with the grandmother on the death of his wife (the child included in this study being 18 months at the time), but had to place them in the Homes

when the grandmother also died. In a further case the child was 2½ at the time of the mother's death, but there is no record where the child was placed between this time and admission. The child who lost both parents had the father die of heart-failure quite suddenly, and the mother die in childbirth a few months later.

The children in the first three classes, totalling 12, are the victims of broken marriages, mostly as a result of war conditions. The war casualties are not limited to fighting men, nor even to direct enemy action. In 3 of the 4 cases of illegitimacy, the mothers had looked after the children for some time, but had placed them owing to the necessity of working. One of these mothers has placed at various times 5 other children in these same Homes: it is not recorded how many she has placed elsewhere. The fourth illegitimate child had been adopted and was placed by the adoptive parents. The Care and Protection case was a member of a family where the mother had neglected the children during her husband's absence in the Forces, and the children had been removed under a Court order.

It is obvious that one can hardly claim that this group of children as a whole had enjoyed a normal home life up to the time of admission to the Homes, although so far as the records go, some of them probably had. Whatever their experience in the first four years, they had not been reared

in what has been described as the 'psychologically toxic' atmosphere of an institution. It will be seen what difference this makes to development.

17 of these children had siblings also in the Homes, and many had siblings elsewhere. Many of them came from large families, 10 of which had five or more children.

In socio-economic background they appeared comparable to the MF-group. In most cases the fathers were known. 7 of these children have maintained contact with one or other of the parents, and in some cases where these are separated, both visit the child independently, an event which may be confusing to the child and sometimes an awkward one when they unexpectedly meet one another.

i. Raven's Progressive Matrices.

The scores were graded in six groups, based on the percentile score of the individual, according to the table given in the norms for the test. Boys under 10 years of age were given the 1947 version of the Matrices, the rest received the 1938 version. The results were as follows:

Grading	MF-group		L-group	
	N	%	N	%
I	0	0	0	0
II	2	4.9	4	14.3
III	11	26.9	8	28.6
IV	16	39.1	7	25.0
V	12	29.1	9	32.1
	41	100	28	100

The L-group is superior in so far as it has a higher proportion of scores in Grade II, but applying the chi-square test to the distribution of scores shows that there is no statistically valid difference between the two groups. So far as is shown by this measure, the L-group is distinguished by a couple of superior individuals, and apart from these, there is little to choose between the groups.

ii. Draw-a-Man Test.

This test has been discussed in detail earlier. The comparisons of the scores are as follows:

Group	Mean C.A.	Mean D.M.A.	Mean D.A.Q.	Mean size
MF	8-7	6-0	71.19	2.52
L	10.0	7-8	78.64	2.93

The difference between the Drawing Achievement Quotients of the two groups shows a superiority for the L-group which is significant at the 5%level.

Nine of the boys in the L-group depicted a definite character, whereas only 6 of the bigger MF-group did this, but owing to the lower age of the former group, a difference of this sort is to be expected, and indeed, might have been larger. Only 1 of the MF-group made a drawing which definitely suggested movement, whereas 6 of the L-group did this, which again is probably related only to the age factor.

Comparing the drawings of those members of the MF and L-groups that are of a similar age, there are no discernible trends towards a difference between them, either in the quality of the drawing or in any of the features discussed in the earlier section on the Draw-a-Man Test. There was a very slight tendency for the L-group to draw larger drawings, but here again the average was raised by the few older boys: the mean overall height of the productions of the MF-group was 2.52 inches, and of the L-group 2.93 inches. This difference is not reliable.

Terman-Merrill Vocabulary Test.

Using the age-norms provided in the manual, a graph was prepared whereby a mental age equivalent could be read for a given score on the vocabulary item of this test. In the case of the MF-group this was taken from the Terman-Merrill record, but the L-group were not given the full test, and the vocabulary test was given as a separate item. The nature of the scores permits working only at four-month intervals, so that the M.A. equivalent is only an approximate measure. The Vocabulary I.Q.s were calculated from the C.A.s using the table provided in the manual in the usual way. The scores are as follows:

Group	Mean C.A.	Mean Vocab. M.A.	Mean Vocab. I.Q.
MF	8-9	6-10	78.51
L	10-0	8-0	79.07

The difference between the V.I.Q.s is not significant.

WISC Vocabulary Test.

This was given in addition to the Terman-Merrill vocabulary score for the purpose of comparing the usefulness of the two tests. The scaled-scores were taken from the

raw-scores using the tables provided in the manual, and the results expressed in terms of these scores are as follows:

Group	Mean Score.	Range of Scores.
MF	6.27	2---12
L	7.78	2---13

The difference is significant at the 5% level.

The scaled scores of all the subtests of the WISC are so calculated that the range is 0 to 20, and 10 represents the 50th percentile. Both groups are well below this level, and compare unfavourably with the population used to standardise this test.

WISC Information Test.

This (like the other two WISC subtests) was administered to the L-group as a separate test, as they were not given the full scale. The results are:

Group	Mean Score.	Range of Scores.
MF	7.51	4---13
L	7.71	3---16

The difference is not significant.

Both groups again are below the 50th percentile of the standardisation population.

WISC Coding Test.

This subtest was applied as a non-verbal item that might be freer of cultural factors than the others used. The results are:

Group	Mean Score.	Range of Scores.
MF	7.78	4---13
L	8.36	4---13

The difference is not significant.

The inferiority in this case is less than in the two previous tests, but both groups are again below the 50th percentile.

Conclusions and Discussion.

The hypothesis that the later-deprived child is less retarded in intellectual development than the early deprived one has been examined. Whilst the later-deprived group showed a small superiority in each of the seven measures applied, in five the difference was not statistically valid, and in the other two it was barely significant. Even this small superiority of the L-group might be due only to the shorter institution experience of these children, and one would hardly be justified in accepting the hypothesis

as proved.

In terms of the argument put forward in Chapter 8 of Volume One, the child starting in family life begins the process of acculturation, and he has his personality enriched and extended in the manner suggested. The induced 'needs' (for affection, etc.) are also engendered. The extent to which the child is acculturated and the intensity of the induced needs, are both determined by the 'goodness' of this experience of family life. In proportion to the amount of education (using the term in its very widest sense) that the child has received he is susceptible to frustration, and its psychological consequences. Even very poor family life is said to be preferable to institution upbringing.

Taken as a group, the L-group apparently had no very good experience of family life, and presumably had not been acculturated to any great extent, none the less we might suppose that had all these children been examined on their fourth birthdays, those of the L-group would have proved significantly superior to those of the MF-group. Unfortunately there is no means of testing this assumption. If the children of the L-group had a superior development previous to deprivation, they appear to have lost most of this superiority in the interval. As frustrated individuals, they have retreated to the ultimate state of frustration,

that of resignation, in which they are barely distinguishable from the relatively unacculturated institution child. We cannot be certain that at four years of age the L-group had a superiority over the MF-group, but almost the whole of any start they may have had then appears to have been lost in the intervening years.

The numbers are too small to show reliable trends, but in both the L and the MF-groups the highest scoring individuals were among the oldest boys, with the longest institution experience, and there is no detectable tendency for the younger members of the L-group to be superior to comparable boys in the MF-group: that is, there are no signs that the groups converge with age and become indistinguishable only after long institution experience. The fact that the L and MF groups seem to be parallel rather than converging suggests that the L-group was never superior (by much at least) to the MF group. If family life, even though poor, gives an advantage, this advantage is apparently very quickly lost on institutionalisation. However, individual differences of intelligence and other measurable intellectual functions survive even lengthy institution experience. Because institutionalisation is not a complete leveller, and since these children have all been reared since deprivation in a uniform environment,

if the L-group had an initial advantage it is surprising that they have not maintained the lead.

No significant trends are revealed by separating the L-group into two parts, those known to have had unsatisfactory family life prior to admission, and those who may be presumed to have had normal family life.

Taken on the whole, it does not appear from this study that the results of later deprivation are significantly less severe than at the earlier age, and whilst deprivation in the first six months of life is serious, deprivation in the fourth year is hardly less so.

Ideation of the Institution Child.

In connection with the Memories item of the 'm-f' Test described earlier, a verbatim record was made of the memories the children produced. These were analysed for the number of ideas or details involved in the memories. Taking all the eight-year-old children, both boys and girls, in the control groups used for that test (41 in number), the mean C.A. was 8-5. Their mean score on 'ideas' on this memory test was 7.04. The MF-group (mean C.A. 8-7) scored 4.48, and the difference between these means is very highly significant.

The two groups are not, of course, strictly comparable, for the control group was of approximately average intelligence, whereas the MF-group had an average I.Q. of 83. However this item does reflect the poverty of these children's intellectual activity compared with a normal sample. The actual responses made the difference more striking, because the institution children often gave single word answers, without even going to the length of making it into a sentence, whereas the normal group much more frequently gave an answer that was well expressed and showed a superiority of observation. Another point of interest is that only one child in the whole of the control sample produced a frankly unrealistic memory, bearing no reasonable relation to anything in the pictures. On the other hand the MF-group produced 16 entirely fanciful 'memories'.

oooooooooooooooooooooooo

Some Observations on Language.

An interesting observation is the frequency with which these boys used possessive adjectives and personal pronouns in the wrong gender. In the C.T.A.T. and the S.I. Tests in particular 'his' or 'him' were repeatedly used in referring to a female figure. The reverse mistake of using the feminine form for a male figure was not noted.

This error was made quite consistently by all the younger boys, though it decreased with age. The only other group of children among which the author has noted this error is in hard-of-hearing children, though not so commonly as it was found here.

It is tempting to suppose that this error reflects the lack of distinction between the sexes that is typical of these children, and whilst this is a plausible explanation, the possibility that it is just bad grammar also exists. These children have had less-than-usual contact with adults, and their knowledge of grammar as of other matters, is gained mostly from the peer-culture. Since differences of gender are much less important in English than in some other languages, they might quite likely be overlooked in their rather limited applications. The fact that hard-of-hearing children are liable to the same error supports this possibility, since these also have less contact with correct speech, though for other reasons.

A number of words and terms exist in the vocabulary of these children which are peculiar (so far as the author knows) to this community. A clothes locker is a "Lockard", for example, and this is obviously a mis-pronounciation of the usual word, but it is interesting to note the way in which this error persists among all

the children in spite of the fact that none of the adults use it. This again reflects the fact that they acquire speech almost exclusively from the peer-culture. Whilst the author is by no means an expert on the Scottish vernacular, the slang vocabulary contained a number of terms that have not been identified as in common use elsewhere by more knowledgeable people whose opinion has been sought.

Summary of the Individual Cases.

The information on the individual boys is summarised in the following standard form.

Group and reference number (M for M-group, F for F group).

Score on Terman and Merrill revision of the Stanford-Binet test, (1937), Form L. (T-M).

Score on Wechsler Intelligence Scale for Children (WISC), giving Verbal I.Q. (V), Performance I.Q. (P) and Full I.Q.

Grading on Raven's Progressive Matrices, 1938 or 1947 version according to age (P-M), the scores being rated I, II, III, IV or V according to the criteria in the Manual.

Results of the m-f Test (m-f), quoting Memories (item i), Toy Choice (item ii), and Book Choice (item iv). The number of ideas involved in the Memories is also given.

Score on the Draw-a-Man Test, quoting the chronological age at the time of the test, the Drawing Mental Age (D.M.A.) and the orientation of the drawing. The masculinity-femininity score is given, or where appropriate a note that the drawing was too primitive to be scored.

Score on the Social Intelligence Test (S.I.T.) The subject's score is first quoted, following by the tentative norms for the control group in brackets. His standing relative to the MF group is stated.

Occupation of the biological father and mother, and the reasons for admission to the Homes. As all are illegitimate, this fact is not repeated.

A brief personality assessment of the boy, based on the above test results and on additional data. This additional data includes that from the Controlled Thematic Apperception Test (CTAT), interviews, general observations over the whole testing programme, and information supplied by the cottage-parents.

n.r. no record.

Fl.

T-M C.A. 12-6 M.A. 12-0 I.Q. 96

WISC. V. 95 P 79 Full I.Q. 86

P-M(1938) IV

'm-f' Memories m 1 f 2 Ideas 6
Toys m 4 f 4
Books Models

D/M. C.A. 12-4 D.M.A. 8-6 profile
m 4 f 0 (Geil's criteria F0)

S.I.T. 16 (27) Below norm of MF group

Father: Apprentice engineer. Mother: factory girl.
Both under age. Admitted at 3 months.

Unlike many of the children studied, this boy was especially fluent in the test-situation, and one's difficulty was not in getting responses, but in keeping pace with all he said! There was a clinging, attention seeking quality in his conversation and he was always reluctant to close an interview. In view of his verbal fluency it is interesting to note the wide difference in Verbal and Performance scores on the WISC.

He is markedly effeminate, and even the cottage-mother remarked about this. The essay on "Father" is of interest, especially the jealousy of the other son and the birth of a daughter. A consistent and strong feature of his projective material was in showing the father-figure as a benevolent one and the mother-figure as a frustrating and punishing one. This

even extended to the responses in the S.I.T., for example, on Jokes 3 _depicting the furniture-moving) he gave: "the woman tells the man to do something, and when he does it she gives him a swipe on the ear."

Although there is a rather strong effeminacy in his personality, there is also some compensatory masculine-aggression, which may lead to conflict, although it does not seem likely to lead him into delinquency, (in which he differs from M8). His effeminacy is possibly superficial rather than fundamental to his personality, and there is no evidence of a powerful feminine identification.

Although he is in a good cottage (that is, as good as a fatherless cottage can be) he is not settled in it and several times expressed a desire for a move.

Father.

Once upon a time there was a father. He was looking for his children, they had wandered into the woods when he was making there dinner there mother had died three year ago and the father was going to marrey a week after but he did not find one of his children as the had gone astray and lead themself into a deeper part of the wood and was killed by some wild beast. The marriage could not he hell'd until six weeks later. When the marriage did get hell'd they were very sad to have losed there son, becuase it was the fathers favorite and the other son was very glad because he was jealous but the father got an other child it was a girl and the parents lived happy ever after.

F 2.

T-M C.A. 10-11 M.A. 6-6 I.Q. 60

WISC. V. 63 P. 69 Full I.Q. 63

P-M (1938) V.

'm-f' Memories m 1 f 2 Ideas 3.
Toys m 5 f 3
Books Models

D/M. C.A. 10-10 D.M.A. 6-6 full-face
m 2 f 2 (FO on Geil's criteria, but barely scorable).

S.I.T. 9 (23) Well below MF-group norm.

Father: engineer. Mother: n.r. Admitted at 26 weeks.

This boy had not been suspected of mental deficiency, and hence was not eliminated in the original selection of the MF-group. He is described by the cottage-parents as 'dull', but not 'very dull'. In spite of his I.Q. he would not be certifiable within the legal definitions. In personality, he is rather dull and apathetic, but amenable. In his projective material the father-figure was the preferred one, and the mother appears as a punishing and frustrating figure. His drawing of a man is immature, and although apparently, clothed the toes are clearly shown. An unusual (but perhaps feminine) addition is a border of flowers.

F 3.

T-M C.A. 8-0 M.A. 6-6 I.Q. 81

WISC. V. 75 P. 74 Full I.Q. 72

P-M (1947) III.

'm-f' Memories m 2 f 2 Ideas 7.
Toys m 3 f 5
Book Sailing

D/M. C.A. 7-7 D.M.A. 4-6 full-face
m 0 f 0 primitive

S.I.T. 15 (16) Above norm of MF-group.

Father n.r. Mother: housewife. Her husband's forgiveness was conditional on the child being disposed of. Admitted at 19 weeks.

This boy was reported by the cottage-mother to be friendly, cheerful and happy, but he was decidedly 'moody' in the test-situation. The WISC was given on an 'off-day' and he was very unresponsive: this is reflected in the score. This is again a case where one feels that the intellectual potential is greater than that revealed by the tests, but without being able to give much objective evidence apart from the P-M result to support this. His score on the S.I.T. is also comparatively good for his age. His projective material revealed little in the way of adult ties, though there was slight indication that the father-figure was preferred and the mother-figure frustrating.

F 4.

T-M C.A. 7-7 M.A. 6-2 I.Q. 81

WISC. V. 87 P 87 Full I.Q. 86

P-M (1947) IV.

'm-f' Memory m 0 f 1 Ideas 2
Toys m 5 f 3
Books Sailing

D/M. C.A. 7-6 D.M.A. 6-6 full face.
m 0 f 4 (Geil's standard F?, but barely scorable).

S.I.T. 12 (15) Average at about the group mean.

Father: Polish soldier. Mother: housewife: her husband refused to support the child. Admitted 26 weeks.

This is a pleasant lad, with rather more responsiveness and vivacity than most in the group. His projective material shows a happy enough attitude to both the mother and father-figure, the latter being somewhat preferred.

F 5.

T-M C.A. 9-2 M.A. 6-6 I.Q. 71

WISC. V. 79 P. 69 Full I.Q. 72

P-M (1938) III+)
(1947) III+) interval 2 months.

'm-f' Memories m 0 f 3 Ideas 4
Toys m 3 f 5
Book Sailing

D/M. C.A. 8-11 D.M.A. 6-0 full face

m 0 f 0 primitive

S.I.T. 9 (19) Well below average of MF-group.

Father: 'soldier' Mother: cook. Admitted 21 weeks.

This is a decidedly 'queer' boy. He is markedly inhibited, although a reliable witness reports that on leaving the baby-homes he was a particularly bright and talkative child. Now he is inclined to be solitary; he is timid and withdrawn, and lacking in self-confidence. His projective material was sparse, but gave definite suggestion of an unfavourable attitude to the mother-figure and a happier one towards the father-figure. His drawings contained some slightly bizarre elements, with massive lines and heavy shading suggestive of depression.

The discrepancy between the Matrices score and those on other tests is interesting, though it is difficult to say what is its significance.

His score on the S.I.Test reflects quite clearly his lack of social contact.

F 6.

T-M C.A. 8-4 M.A. 6-8 I.Q. 80

WISC. V. 77 P. 71 Full I.Q. 72

P-M (1947) IV.

'm-f' Memories m 2 f 1 Ideas 4.
Toys m 5 f 3
Books Locomotives

D/M. C.A. 8-4 D.M.A. 6-0 full face

m 0 f 0 primitive

S.I.T. 15 (18) Above group average.

Father: n.r. Mother: domestic servant. Admitted at 19 weeks.

This is a rather inhibited boy. His projective material was sparse, and does not give a clear indication of parental attitudes, though there are indications of a preference for the mother-figure. Perhaps the chief interest is negative, the absence of initiative and an acceptance of negation (e.g. "Oh well, we'll not get any breakfast," on CTAT 1). All of his free drawings were of men, very primitively drawn with a curious 'hand' (See Figure 5, page 48a).

His S.I. Test score is not altogether in keeping with other assessments.

F 7.

T-M. C.A. 10-6 M.A. 9-2 I.Q. 87

WISC. V. 86 P. 76 Full I.Q. 80

P-M (1938) IV.

'm-f' Memories m 2 f 1 Ideas 3.
Toys m 2 f 6
Book Sailing

D/M. C.A. 10-5 D.M.A. 7-6 full face
m 0 f 2

At 10-8 he made a profile drawing, which was, however, more primitive in other features and scored a D.M.A. of 6-6.

S.I.T. 23 (22) Well above group average.

Father: seaman. Mother: Post office assistant.
Admitted 7 weeks.

This boy has a rather heavy, immobile face and an expression which can only be described as 'wooden'. His projective material contained little of interest, and the whole personality is rather featureless.

His score on the S.I. Test is the only outstanding feature, for he is one of the few boys scoring above the norm of the control group, and it suggests that his 'dead-pan' expression covers a more acute observation of the world than might be credited.

F 8.

T-M C.A. 8-5 M.A. 6-6 I.Q. 77

WISC. V 71 P 60 Full I.Q. 62

P-M (1947) III-

'm-f' Memories m 5 f 2 Ideas 9.
Toys m 2 f 6
Book Models

D/M. C.A. 8-2 D.M.A. 6-0 full face

m 0 f 0 primitive

S.I.T. 15 (18) Rather above norm of MF-group.

Father: n.r. Mother: housewife. Admitted at 6 weeks.

This is a hyperactive boy with very limited power of concentration. His responses to the CTAT revealed little of note, and he chattered superficially, rather than entering into the situation. His drawings of a man (See Figure 4 page 48a) illustrates a common feature with these boys, that of showing the feet like hands.

F 9.

T-M C.A. 7-4 M.A. 6-4 I.Q. 86

WISC. V. 79 P 72 Full I.Q. 73

P-M (1947) III

'm-f' Memories m 0 f 2 Ideas 2.
Toys m 3 f 5
Book Flowers.

D/M. C.A. 7-3 D.M.A. 5-0 full-face

m 0 f 2

S.I.T. 7 (15) Below group average.

Father: R.A.F. Pilot. Mother: W.A.A.F. Clerk.
Admitted 21 weeks.

This boy was difficult to test: his attention constantly wandered, he responded irrelevantly and fidgetted throughout almost every interview: he is somewhat negativistic. His projective responses yielded little of interest, and they are in fact conspicuous for their sparseness. This is an unsocialised child, as is reflected in his S.I. Test score.

F 10.

T-M C.A. 8-9 M.A. 7-2 I.Q. 82

WISC. V 95 P 86 Full I.Q. 90

P-M (1947) V.

'm-f' Memories m 3 f 2 Ideas 6
Toys m 3 f 5
Book Locomotives

D/M. C.A. 8-9 D.M.A. 6-0 full face
m 0 f 0 primitive (See D page).

S.I.T. 14 (18) Slightly above group norm.

Father: unknown. Mother unemployed. The mother was aged 15½ at the time of the birth, said to be due to criminal assualt. Admitted at 20 weeks.

This is an open, friendly and responsive boy. His projective material showed a favourable attitude to both parent figures, and on the whole he appears a normal boy, though there is a suggestion of effeminacy (subjectively estimated).

F 11.

T-M C.A. 6-0 M.A. 5-1 I.Q. 85

WISC. V. 80 P 80 Full I.Q. 78

P-M (1947) IV.

'm-f' Memories 0 Ideas 0.
Toys m 2 f 6
Book Models

D/M. C.A. 6-0 D.M.A. 4-6 full face

m 0 f0 primitive

S.I.T. 10 (12) Rather above group average.

Father: Polish soldier. Mother: factory worker.
Admitted at 21 weeks.

This is a quaint little boy: there is a certain degree of coeliac dwarfism , but this is not severe. He is a cheerful, friendly child, and responsive in the test situation. Projective material suggests a rather more favourable attitude to the father-figure, but the evidence is not strong. This subject shows no special clinical features.

F 12.

T-M C.A. 9-2 M.A. 7-8 I.Q. 84

WISC. V 99 P 74 Full I.Q. 85

P-M (1947) IV.

'm-f' Memories m 2 f 1 Ideas 5
Toys m 2 f 6
. Book Locomotives

D/M. C.A. 8-11 D.M.A. 6-6 full face
m 0 f 0 primitive.

S.I.T. 14 (19) At about group mean.

Father: Farm labourer. Mother: factory worker.
Admitted at 13 weeks.

This boy showed in his projective material a very definite preference for the father-figure, the mother-figure being a frustrating one. He was not a particularly easy subject: there was a hesitancy of speech, though not a definite impediment, as if he had difficulty in finding words. Apart from this, there is no particular clinical feature.

F 13.

T-M C.A. 14-4 M.A. 15-0 I.Q. 108

WISC V 101 P 104 Full I.Q. 103

P-M (1938) II

'm-f' Memories m 0 f 2 Ideas 3
Toys m 6 f 2
Book Models

D/M. C.A. 13-11 D.M.A. 11-0

m 6 f 0 (F0 on Geil's standards).

S.I.T. 27 (32) At group average.

Father: steward. Mother: stewardess.

Admitted at 13 weeks.

This boy is the oldest in the study, and also the most intelligent. In projection he favoured the father-figure although both the father-figure and the mother-figure were punishing to some extent (the latter more than the former). Although in a father-less cottage, he seems a fully masculine boy, though there is evidence in his behaviour of a compensatory over-masculine aggression. (It is of interest to note that the cottage-mother is a rather masculine woman). There is an immaturity in his drawings, and in spite of a relatively high I.Q. there is a wide gap between his C.A. and D.M.A.

F 14.

T-M C.A. 7-10 M.A. 5-9 I.Q. 73

WISC V 79 P 68 Full I.Q. 71

P-M (1947) V.

'm-f' Memories m 0 f 1 Ideas 1.
Toys m 2 f 6
Book Sailing

D/M. C.A. 7-11 D.M.A. 4-6 full face

m 0 f 0 primitive (See Drawing c, page 88b).

S.I.T. 11 (16) At mean of group.

Father: soldier. Mother: NAAFI cook.

Admitted at 16 weeks.

This case had slight hydrocephalous in infancy, though medical opinion believes that this had now drained spontaneously. Mild seizures were noted in 1950, but have not recurred: the case may therefore be complicated by organic factors. He is rather inhibited, and his projections were rather disjointed: there was some evidence of preference for the father of the parent-figures.

F 15.

T-M C.A. 8-11 M.A. 6-2 I.Q. 69

WISC V 79 P 74 Full I.Q. 74

P-M (1947) V.

'm-f' Memories 0 Ideas 0
Toys m 3 f 5
Book Sailing

D/M. C.A. 8-9 D.M.A. 5-6 full face

m 0 f 0 primitive

S.I.T. 10 (19) Well below norm of MF-group.

Father: Seaman, R.N. Mother: W.A.A.F.

Admitted at 13 weeks.

This boy is inhibited and very immature. He had difficulty in following instructions, and his projective responses were largely descriptive of the pictures: such evidence as was presented suggests a preference for the mother-figure and little in the way of phantasy surrounding the father-figure. The personality is restricted and undifferentiated. His immaturity is reflected in the S.I.Test score.

F 16.

T-M C.A. 10-0 M.A. 8-2 I.Q. 82

WISC V 76 P 85 Full I.Q. 78

P-M (1947) V

'm-f' Memories m 3 f 3 Ideas 7
Toys m 4 f 4
Book Locomotives

D/M. C.A. 9-8 D.M.A. 5-6 profile

m 6 f 0 (See E page 88d)

S.I.T. 14 (21) Below group norm.

Father: n.r. Mother : nurse.

Admitted at 13 weeks.

This is a happy-natured boy, with an uncomplicated though restricted personality. His projections revealed little in the way of parent-phantasies.

F 17.

T-M C.A. 10-10 M.A. 8-10 I.Q. 82

WISC. V 87 P 79 Full I.Q. 82

P-M (1938) III-

'm-f' Memories m 3 f 2 Ideas 7
Toys m 2 f 6
Book Locomotives

D/M. C.A. 10-7 D.M.A. 8-0 profile

S.I.T. 26 (22) Well above mean of MF-group.

Father: n.r. Mother: waitress. Admitted 20 weeks. The mother was an orphan.

This boy was beginning to become out-of-hand in his cottage, and at the writer's recommendation he was moved to one with a cottage-father (this occurred towards the end of the observational period). Normally he is a friendly, cheerful boy, though liable at times to outbursts of temper and unruliness. He was becoming resentful of feminine control, but settled well in the cottage with a man. His behaviour appears to have been a quite natural reaction of a pubescent boy, and he is not in any way abnormal. His S.I. Test score is outstanding, being one of the few to better the control group norms, and relative to the group he has unusual social insight.

F 18.

T-M C.A. 6-0 M.A. 6-1 I.Q. 88

WISC V. 97 P 80 Full I.Q. 88

P-M (1947) III

'm-f' Memories m 2 f 3 Ideas 5
Toys m 4 f 4
Book Models

D/M. C.A. 6-0 D.M.A. 5-6 full face

S.I.T. 9 (12) Above group norms.

Father: n.r. Mother: unemployed (reported to be 'very simple'), aged 17. Admitted at 18 weeks.

This is perhaps the most normal child in the whole study. He is self-confident and converses easily, and displays little of the common symptoms of institutionalisation. No reason for this could be found; his heredity does not appear (from the meagre reports) to be any better than that of others in the group, though the father is an unknown factor, nor had he received any different treatment in the Homes from the other children, so far as could be ascertained; yet comparing him with some of the other children studied, the difference in personality is striking. It would be of great value to know the reason for this difference, but unfortunately it is not apparent.

F 19.

T-M C.A. 7-11 M.A. 8-2 I.Q. 103

WISC. V 103 P 93 Full I.Q. 98

P-M (1947) V.

'm-f' Memories m 4 f 3 Ideas 10
Toys m 5 f 3
Book Cotton

D/M. C.A. 7-11 D.M.A. 5-6 semi-profile

m 0 f 0 Primitive

S.I.T. 15 (18) A little above group norms.

Father: unknown. Mother: n.r. Admitted at 17 weeks.

This boy is above the average intelligence of the group. No special clinical features are presented, though the personality is sparse and immature. Projective material showed no strong parental phantasies, but a rather more favourable attitude to the father-figure, the mother-figure being presented as mildly frustrating.

F 20.

T-M	C.A. 8-10	M.A. 6-8	I.Q. 75
WISC.	V 85	P 89	Full I.Q. 85
P-M (1938)	III+		
'm-f'	Memories Toys Book	m 1 f 1 m 3 f 4 Sailing	Ideas 3
D/M.	C.A. 8-4	D.M.A. 5-6	full face
	m 2 f 2		
S.I.T.	15 (19)	At group mean.	

Father: soldier. Mother: housewife, (married).
Admitted at 6 weeks.

This case presents no unusual features, the boy being in all respects an average member of the group. Projective material revealed no strong parental attachments: the adult figures were identified in the indefinite and impersonal manner that is typical of these children (a father, etc.)

M 1.

T-M C.A. 6-3 M.A. 4-5 I.Q. 71

WISC. V. 74 P 69 Full I.Q. 69

P-M (1947) Grade V.

'm-f' Memories m 2 f 1 Ideas 3
Toys m 2 f 6
Book Locomotives

D/M. C.A. D.M.A. full face

m 0 f 0 primitive.

S.I.T. 7 (12) At group norm.

Father: soldier. Mother: farmworker. Extramarital relationship, husband unwilling to support.

Very slow in the test situation, and difficult to obtain a response. He would sit and smile vacantly. There is no evidence that suggests the above estimates of his intellectual level do him an injustice, and he is probably innately dull. On all tests his responses are sparse and reflect a poverty of ideation. There is no indication of a rich fantasy life. All his interpersonal relationships are superficial.

M 2.

T-M C.A. 7-11 M.A. 6-6 I.Q. 82

WISC. V 76 P 86 Full I.Q. 79

P-M (1947) III+

'm-f' Memories m 3 f 2 Ideas 7
Toys m 4 f 4
Book Models

D/M. C.A. 7-9 D.M.A. 6-6 full face

m 4 f 0

S.I.T. 9(16) Below group norm.

Father: soldier. Mother: housewife, result of extra-marital union. Four changes of fostermother are recorded before his admission at the age of 25 weeks.

He has a squint in the right eye, and his face is unsymmetrical; he has a nervous spasm, and frequently a worried look. He is an inhibited child. He is reported to fear the dark, and in one visit to the clinic he was terrified of a kitten that wanted to be playful. He speaks in a whisper, and has a 'quaint, old-fashioned' manner. When his confidence is gained he is less tense and much more friendly. His drawings were rather primitive, and contained some curious features (e.g. a ship with a door instead of the funnel, and an alarm-clock walking) and also much detail with little content. In a number of instances (e.g. in the CTAT) his responses bore no consequential relation to the question. Rejection of and by parental figures was the most marked feature of his projections.

His drawings included six men, two of whom had an addition that could be interpreted as a phallus, and he did spontaneously remark that he cannot draw trousers: no further evidence of a precocious sex interest was obtained. He is an anxious and very insecure child with an extensive phantasy life. This is a case where one feels that the results of the usual intelligence tests underestimate his innate potential, and the P-M result lends some support to this.

M 3.

T-M C.A. 6-7 M.A. 4-8 I.Q. 71

WISC. V 75 P 67 Full I.Q. 68

P-M (1947) IV.

'm-f' Memories m 0 f 2 Ideas 2.
Toys m 5 f 3
Book Locomotives

D/M. C.A. 6-5 D.M.A. 4-6 full face

m 0 f 0 Primitive

S.I.T. 6 (13) Below MF-group norm.

Father: "a lad". Mother: aged 15, and too young to support him. Admitted at 17 weeks; very frail and underweight on admission.

A friendly little boy, rather more self-assured than most in this study. He was not, however, highly responsive and seemed to have difficulty in following instructions. In the CTAT there was fairly consistent concord with father-figures and rejection of mother-figures. He does not appear to be an anxious or disturbed child, although dull and immature.

M 4.

T-M C.A. 7-5 M.A. 5-10 I.Q. 79

WISC. V 72 P 67 Full I.Q. 67

P-M (1947) IV.

'm-f' Memories m 3 f 1 Ideas 6
Toys m 2 f 6
Book Pottery

D/M. C.A. 7-3 D.M.A. 5-6 full face

m 0 f 0 primitive

S.I.T. 11 (15) At group mean.

Father: Seaman. Mother: Housewife: extramarital union, husband refuses to support. Admitted at 6 weeks.

An immature boy, and dull, but markedly anxious. He co-operated, in the test situation, and was normally responsive, but had difficulty in following instructions. His projective material is characterised more by poverty than any distinctive feature.

M 5.

T-M C.A. 7-8 M.A. 5-7 I.Q. 73

WISC. V 71 P 61 Full I.Q. 63

P-M (1947) V.

'm-f' Memories m 2 f 2 Ideas 8
Toys m 4 f 4
Book Sailing

D/M. C.A. 7-8 D.M.A. 4-6 full face
m 0 f 0 primitive.

S.I.T. 9 (15) Below norm of MF-group.

Father: soldier. Mother: land girl. Unable to support him. Admitted at 25 weeks.

A very poor speaker. At 3 years he was reported to be very backward in speech. His mother has visited twice in the 7 years he has been in the Homes (the second occasion 2 years ago) and he is expectant every visitor's day. His drawings are very crude and immature. He is friendly and affectionate, and there is no evidence of anxiety in his psychological make-up. His projective material showed some positive phantasies around parental figures, more especially the father.

M 6

T-M C.A. 9-11 M.A. 8-0 I.Q. 81

WISC. V 89 P 79 Full I.Q. 83

P-M (1947) V.

'm-f' Memories m 3 f 2 Ideas 6
Toys m 7 f 1
Book Locomotives

D/M. C.A. 9-9 D.M.A. 5-0 full face

m 0 f 0 primitive.

S.I.T. 18 (21) Above average of MF-group.

Father: Marine. Mother: Shop girl.

Admitted at 6 weeks.

His drawings, both D/M and free-drawing, were remarkably immature and typical of the pre-school child, but on the S.I.T. he scored rather above the average of the group for his age and intelligence. In his responsiveness to interview and test situations he was rather more accessible and reactive than most in the study: he is a somewhat independent boy.

M 7.

T-M C.A. 9-11 M.A. 7-8 I.Q. 77

WISC. V 80 P 67 Full I.Q. 70

P-M (1947) V.

'm-f' Memory m 0 f 1 Ideas 4
Toys m 5 f 3
Book Locomotive

D/M. C.A. 9-10 D.M.A. 5 -0 full face.

S.I.T. 10 (12) Well below average of MF-group.

Father: miner. Mother: landgirl. Admitted at 14 weeks.

This boy is friendly and talkative, but ideation is impoverished and immature. The cottage-parents report excessive masturbation in the past, now stopped. There is little evidence of phantasy life, or of parental identifications. He wet the bed up to about 8½, but is now regularly dry. He is amenable - presents no behaviour difficulties. His social immaturity is shown in the S.I. Test score.

M 8.

T-M C.A. 13-5 M.A. 12-8 I.Q. 96

WISC. V 80 P 94 Full I.Q. 85

P-M (1938) IV.

'm-f' Memories m 2 f 3 Ideas 5
Toys m 8 f 0
Book Pottery

D/M. C.A. 13-5 D.M.A. 9-6

m 12 f 0

S.I.T. 23 (29) At about mean of group.

Father: Clerk. Mother: n.r. Admitted at 12 weeks.

This was one of the oldest boys in the group. In mannerism he is somewhat effeminate, but there is a compensatory aggressiveness and the type of immature 'masculinity' that goes with it. He is liable to bully the younger children. He is boisterous and impulsive, liable to moods and resentful of correction. His present cottage-father manages quite well with him, but he is liable to be defiant in his absence and has a rebellious attitude towards women. He is pubescent and masturbation and other sex-behaviours are a problem. The enclosed essay on "Fathers" is of interest.

M 8.

Fathers.

Fathers are very common to-day. they may have children or not but they very Good to them. You can get all kind of Fathers Some prechers are called Fathers in England Mose Fathers have wives some haven. There is one thing Fathers like doing and that is to amuse there chiden playing games with them etc. But some fathers can be very sore with there chiden. But we all like Fathers.

M 9.

T-M C.A. 7-5 M.A. 6-6 I.Q. 88

WISC. V 77 P 101 Full I.Q. 88

P-M (1947) II

'm-f' Memories m 2 f 2 Ideas 5.
Toys m f f 4
Book Models

D/M. C.A. 7-5 D.M.A. 6-0 full face

m 0 f 0 primitive.

S.I.T. 11 (15). At about the mean for his group.

Father: n.r. Mother: Shop assistant. Admitted at 6 weeks.

This is one of the few boys that has had much contact with a parent. He has spent holidays with the mother, who writes regularly and sends him parcels, and visits. He is also one of the most disturbed boys in the whole study. At some sessions he was inhibited and quiet, at others very talkative and agitated. His responses contained several instances of perseveration and of irrelevance that are strongly suggestive of schizophrenia. His drawings were immature, but apart from drawing a man with a square body there were no unusual features.

The wide discrepancy between the Verbal and Performance parts of the WISC are of interest, and also the high score on the P-M as compared with other intellectual measures.

There is evidence of an over-active phantasy life. Projective material shows a poor attitude to the father-figure. Prognosis for this case is not happy. The fact that he maintains a position (relative to the group) on the S.I.Test is possibly a reflection of intellectual factors rather than social adequacy.

M 10.

T-M C.A. 8-5 M.A. 7-8 I.Q. 91

WISC. V 81 P 89 Full I.Q. 83

P-M (1947) IV.

'm-f' Memories m 3 f 0 Ideas 2.
Toys m3 f 5
Book Locomotives

D/M. C.A. 8-5 D.M.A. 6-6 full face.

m 4 f 0 (FO on Geil's standards). (See Drawing A, page).

S.I.T. 11 (18) Rather below group norm.

Father: lumberjack. Mother: housewife. Mother's husband refuses the child. Admitted at 5 weeks.

This boy was very inhibited and unresponsive. Although rather above the average of the group in intelligence he was slow in response and difficult to test. One seemed unable to get 'below the surface.' Interpersonal relationships are superficial. In projective material there was a rejection of the father-figure and a tendency to favour the mother-figure, although neither trends were strongly marked.

M 11.

T-M C.A. 8-6 M.A. 8-4 I.Q. 98

WISC. V 96 P 90 Full I.Q. 93

P-M (1947) III.

'm-f' Memories m 2 f 2 Ideas 5
Toys m 6 f 2
Book Locomotives

D/M. C.A. 8-4 D.M.A. 6-0 head only in profile.

m 0 f 0 Primitive

S.I.T. 20 (18) Well above group average.

Father: n.r. Mother: grocer's assistant. Unable to support. Admitted at 2 weeks.

This is a quite cheerful boy, of rather better effective intelligence than the mean of the group: he is a more normal boy than many, and his (relatively) superior social maturity is reflected in his S.I.T. score and also in his drawings. He shows little evidence of any strong attachments to a parental-figure, but there is some evidence of an unfavourable attitude to the mother-figure and a rather more favourable one to the father-figure.

M 12.

T-M	C.A. 5-11	M.A. 5-6	I.Q. 93
WISC.	V 85	P 87	Full I.Q. 85

P-M (1947) III

'm-f'	Memories	m 2 f 0	Ideas 2.
	Toys	m 3 f 5	
	Book	Models	

D/M.	C.A. 5-10	D.M.A. 5-0	full face
	m 0 f 0	Primitive	

S.I.T. 11 (11) Above group mean.

Father: n.r. Mother: unemployed, of poor education judging by her letter, and herself illegitimate. Admission at 6 months.

This is a bright and self-possessed little boy, quite talkative and uninhibited, and affectionate. There is evidence of feelings of maternal rejection in his projections, and the cottage-parents report that he builds up a great deal of phantasy around his mother, whom he has never seen. His performance on the S.I.T. reflects a (relatively) superior social adjustment.

M 13.

T-M C.A. 10-0 M.A. 8-6 I.Q. 85

WISC. V 85 P 87 Full I.Q. 85

P-M (1947) III+

'm-f' Memories m 3 f 2
Toys m 4 f 4
Book Models

D/M. C.A. 10-0 D.M.A. 6-0

S.I.T. 12 (21) Well below group norms.

Father: Polish soldier. Mother: housewife. Wished to hide event from her husband (POW). Admitted at 8 weeks.

This boy has nervous spasms and a slight stutter. He was slow and difficult to 'keep going' in the test situation, but the cottage-father reports that he is a bright boy. He is excitable.

His score on the P-M arouses the question of whether the T-M and WISC results reflect his true level, but no other evidence of better intelligence than the 85 I.Q. quoted is obtained. His social maturity score is not good for his age.

In his projective material there was evidence of rejection of the mother-figure and attachment to the father-figure.

One questions whether he hears satisfactorily.

M 14.

T-M C.A. 7-8 M.A. 6-0 I.Q. 77

WISC. V 74 P 79 Full I.Q. 74

P-M (1947) IV.

'm-f' Memories spoiled.
Toys m 5 f 3
Book Locomotives

D/M. C.A. 7-7 D.M.A. 5-0 profile

m 0 f 0 primitive.

S.I.T. 13 (16) Above group norms.

Father: soldier Mother: n.r. of occupation. This is her second illegitimate child. Admitted at 5 weeks.

Although rather dull, this boy co-operated well in the test situation. He did not reveal any strong parental attachments in his projective material, though he favoured the mother-figure rather than the father-figure. He is relatively more mature than the average of the group, and this is reflected in his S.I.T. score and his CTAT responses. Although the cottage-parents complain of boisterousness, he is well adjusted.

M 15.

T-M C.A. 9-9 M.A. 8-2 I.Q. 84

WISC. V 77 P 85 Full I.Q. 79

P-M (1947) IV.

'm-f' Memories m 0 f 2 Ideas 4
Toys m 2 f 6
Book Locomotives

D/M. C.A. 9-9 D.M.A. 5-6 (See Figure 6, Page 48a).
m 0 f 0 primitive.

S.I.T. 21 (20). Well above group norm.

Father: Polish soldier. Mother: factory worker. The mother was the victim of rape, and was rejective of the child before his birth. Admitted at 13 weeks.

This is one of two cases in this group on which the author was able to make special observations, as he was taken into the residential clinic. When first seen he appeared particularly unhappy, and his whole bearing was sad and drooping. He presented no special behaviour problems, nor was he enuretic, nor did he show any other symptoms of maladjustment. He had no attachment to his cottage-parents, and indeed had some antipathy (frankly, they were unsatisfactory, and were shortly afterwards dismissed), so it was decided that a transfer would do no harm, might be beneficial and would also present some interesting observations. His reaction to transfer was unexpected, for although he had expressed very great desire for the move, he wept copiously on arrival and asked to be returned where he had come. However, he quickly

M 15 (continued)

settled, and within hours lost this desire. The interesting point was not that he regretted the severing of any human ties, but that he missed the familiar physical surroundings of the previous cottage: this attachment to places rather than people is common among deprived children. His reaction was diagnostic of a basic insecurity. Again typically, there seemed to be no depth to his grief. It is, of course, impossible to give objective proof of this statement, but one gains the impression that the emotions of these children are often labile but superficial. On a later occasion he was taken out in a boat on the sea, and at a distance from the shore he became very agitated and afraid that the rowing boat might capsize, but his 'terror', whilst rather clamorous, seemed purely superficial, one might almost say verbal.

Although brought up in a cottage with a 'father', he had not made any strong identification with him, and this lack of a father-figure is reflected in his score on the 'm-f' test. As already mentioned, his relationships are superficial, and he had also a rather distrustful attitude to adults, but in his projective material he showed a slightly more favourable attitude to women than to men.

He blossomed somewhat under play-therapy: although it took some effort to provoke it, he became capable of casting off his usual rather hang-dog expression and display a most radiant smile.

As indicated by his score in the S.I.T. he is socially

M 15 (continued).

more mature than other boys of comparable age in this study, but as the test was given after some months in the residential clinic, this comparison may not be justified. The WISC was administered after 2 months in the clinic, but his score shows no improvement over the T-M given just before transfer (it will be recalled that the WISC results were commonly a few points lower than the T-M I.Q., so the lower score on that test does not necessarily mean a deterioration). The content of his free-drawings showed improved 'social awareness' after this special treatment (that is, people became more prominent, whereas before they had been insignificant features of his drawings).

M 16.

T-M C.A. 8-9 M.A. 10-2 I.Q. 116 (Form L)
C.A. 9-3 M.A. 9-2 I.Q. 99 (Form M)

WISC. V 109 P 85 Full I.Q. 97

P-M (1947) IV.

'm-f' Memories m 3 f 4 Ideas 10
Toys m 5 f 3
Book Cotton

D/M. C.A. 8-9 D.M.A. 6-6 full face
m 0 f 0 primitive

S.I.T. 17 (19) Above group norm.

Father: male nurse (mental). Mother: nurse. Child of extramarital union. Admitted at 22 weeks.

This was an interesting boy, whom the author had special opportunities of getting to know. He was in the same cottage as the previous boy (M 15), and was later brought into the residential clinic.

When the clinic was about to be opened, the rumour had gone round the village that it would be for 'daft boys' (this was because it had been proposed, before the authors time in the Homes, to collect the defective boys into a special cottage, and the cottage taken over for the clinic had been earmarked for the purpose: the plan had not materialised owing to the fact that suitably trained staff could not be found).

This boy was especially anxious to get out of his cottage, for he is a sensitive child and the cottage-mother had a

M 16 (continued).

sharp tongue. In the second session he announced to the author, 'I'm daft,' and on questioning insisted that he was at least 'a little bit daft'; when challenged he admitted that he hoped by this admission to secure entry to the cottage. The interesting thing is that on the T-M in the same session he scored an I.Q. of 116, although he never again achieved such a score! An inspection of the results above shows that the retest score gained six months later (99) is more in keeping with other results, although one wonders as to the meaning of the first. Was it a mere freak, or even an error on the part of the examiner: or does it represent his true level of intelligence temporarily freed from emotional inhibition? He was certainly elated during that session by the prospect of escape. There was some scatter in the scores on that occasion.

His drawings were markedly immature. A drawing of a man by him is reproduced on Page 88e and it really epitomises the boy very well.

In his previous cottage he had been known as a thief, but no incidents were reported in the residential clinic. He is not always truthful (but, perhaps fortunately, a very unsuccessful liar). He is a cheerful, talkative and friendly child normally, though on occasions liable to sulky episodes and destructiveness. He seemed to find a father-figure in the author.

The boy was very anxious to get in touch with his mother,

M 16. (continued).

and the author was able to trace her and she commenced regular visits: there was no detectable psychological change following this.

M 17.

T-M C.A. 8-2 M.A. 6-0 I.Q. 73

WISC V. 67 P 78 Full I.Q. 70.

P-M (1947) V.

'm-f' Memories m 2 f 0 Ideas 2
Toys m 3 f 5
Book Locomotives.

D/M. C.A. 8-0 D.M.A. 5-6 Full face.
m 0 f 0 primitive

S.I.T. 5 (17) Far below group average.

Father: soldier. Mother: housewife. Her husband refuses to support this child, which is not his. The mother had already been under supervision of RSSPCC for neglect of her other two legitimate children. Admitted at 26 weeks.

This is a rather quaint little boy. The most noticeable feature of his drawings was the laugh depicted - somehow he made his rude efforts appear very jovial, if nothing else. He is a happy-natured child.

A constantly repeated theme in his CTAT was of being beaten by the "mother" or "Father" and then absconding. He had neither been beaten in the Homes, nor had he run away at any time, and this probably represents parental rejection at the phantasy level.

In the memory item of the 'm-f' test he produced fictitious additions to the descriptions of recalled pictures (e.g. "lady going into a shop, posting a letter .... in a shop with meat and pepper and salt and sugar." This was related to

M 17 (continued).

picture 5). As mentioned elsewhere, embellishments of this kind were very rare indeed in normal children's recalls.

His S.I.T. score is relatively the poorest in the group, although whilst certainly "queer", he was not the most withdrawn or socially inept child.

M 18.

T-M C.A. 7-1 M.A. 6-6 I.Q. 91

WISC. V 94 P 87 Full I.Q. 90

P-M (1947) V.

'm-f' Memories m 3 f 0 Ideas 3
Toys m 3 f 5
Book Locomotives

D/M. C.A. 7-1 D.M.A. 6-0 full face.

S.I.T. 11(15) Rather above group norms.

Father: n.r. Mother: domestic servant.

Admitted at 7 weeks.

This is the only boy in the MF-group who is enuretic. He is a rather unhappy boy, inclined to be 'distant' with adults, though not in the peer-culture. His responses were rather more wordy than most of this group, without, however, having much content. His projections revealed a lack of emotional contact with adults, though there was an indication of a rather more positive attitude to the father-figure.

M 19.

T-M C.A. 7-4 M.A. 5-10 I.Q. 80

WISC V 86 P 82 Full I.Q. 83

P-M (1947) V.

'm-f' Memories m 2 f 2 Ideas 5
Toys m 5 f 3
Book Sailing

D/M. C.A. 7-2 D.M.A. 5-6 full face

m 0 f0 primitive

S.I.T. 10 (15) Average in his group.

Father: mill worker. Mother: mill worker. The father is a married man: he supports the child financially. Admitted at 24 weeks.

He is a very poor speaker, confusing consonants particularly. In the test situation he fidgetted constantly: his attention wandered and he had difficulty in following instructions. His CTAT responses were disjointed, often lapsing into mere description, and including irrelevant or even nonsensical ideas. The cottage-parents report that he is good-natured and cheerful, although rather shy and dependent. Masturbation has also been noted.

He revealed no particular parental attitudes, and his attitude to adults generally appears to be apathetic, so far as projective material shows, although the cottage-parents report that he is affectionate.

M 20.

T-M C.A. 6-9 M.A. 5-5 I.Q. 80

WISC V. 76 P 80 Full I.Q. 76

P-M (1947) III-

'm-f' Memories m 3 f 0 Ideas 3.
Toys m 2 f 6
Book Cotton

D/M. C.A. 6-9 D.M.A. 5-6

S.I.T. 5 (13) Well below group norms.

Father: engineer. Mother: domestic servant.

Admitted at 9 weeks.

This boy's projective material showed a good deal of latent aggression, although there was no evidence of unduly aggressive actions in real life. There was a poor attitude to the mother-figure, who was portrayed as a frustrator, and a more favourable attitude to the father-figure. This is of interest as his mother visits him frequently and has had him for holidays. The S.I.T. score is markedly depressed.

M 21.

T-M C.A. 11-0 M.A. 9-10 I.Q. 89

WISC. V 86 P 78 Full I.Q. 80

P-M (1938) III+

'm-f' Memories m 5 f 1 Ideas 7.
Toys m 5 f 3
Book Locomotives

D/M. C.A. 10-10 D.M.A. 7-0 semi-profile

m 4 f 0 (Geil's criteria F0) See drawing G, page .

S.I.T. 15 (23) Below norm for group.

Father: Apprentice cook. Mother: unemployed, daughter of shipyard labourer. The father was 17 and the mother 16. Admitted at 23 weeks.

Although somewhat slow in response in the test situation, this boy is more boyish than many in the group. He is affectionate and friendly, in a quiet and reserved manner.

His projective material showed a more realistic and normal outlook on life than was common in these children. He had a consistently more favourable attitude to the father-figure than the mother-figure, who was frequently denoted as frustrating.

The S.I. Test score is depressed, even relative to this group.

Appendix 1.

The Non-Intellective Factors of Intelligence.

A little further discussion of this question is perhaps called for. Wechsler has not expanded his concept of 'non-intellective factors' a great deal. In a paper to the A.P.A. in 1940 (of which an abstract is available) he points out that two lines of evidence exist supporting the concept. One is clinical, in the fact that individuals of the same I.Q. level may function very differently. Secondly, factorial analysis shows that only 50% to 70% of interest correlational variance can be accounted for in terms of recognised intellectual factors, leaving some 30% to 50% to be accounted for in other ways. He puts forward the view that whilst these other entities or factors are generally described as temperamental traits (drive, energy, impulsiveness, etc.), they must be considered part and parcel of intelligent behaviour. He conceives them as basic capacities which enter into general intelligence in the same way as verbal or abstract reasoning ability.

In the foregoing discussion of the WISC mention has been made of certain other factors which influence intelligent behaviour (such as motivation), which cannot be described as temperamental, but are acquired. Wechsler does not specifically include such factors, but would apparently concede their

importance. In a later article he says, "This (i.e. maturity) does not, of course, mean that basic endowment cannot be influenced by socio-economic and cultural factors. Even I.Q.'s, as we know, can be raised, but that is not because the child's native endowment is altered, but because the factors which have inhibited it have been removed. This distinction is important because it points to the fact that the aim of education should not be to create abilities which it cannot, but to utilise them which it does not." (1950, p. 49).

A similar suggestion was made in Volume One of this work, when it was said that in the process of acculturation (or education, in its widest sense), the child has his potentialities developed to an extent which the unacculturated child has not. The child reared under the superior socialising and educational regimen of the family utilises his abilities to an extent much nearer his maximum potential than does the institution child. The factors involved in intelligent behaviour, according to this view, are as follows:

i. an innate and rigid basic factor, presumably related to neurological structure.

ii. certain temperamental factors, also innate (Wechsler's non-intellective factors).

iii. cultural and social factors which determine, among other things, the level up to the maximum at which the potentialities of i. and ii. are utilised.

The present study has sought, without success, some clues to test the assumption that the institution child is working at the level determined by i. and ii., relatively uninfluenced by iii. It is evident that the search is not being made in the right way. Perhaps the matter could be decided only by exposing these children to the processes of iii. which they have lacked, although the factor of critical periods is an additional one in the problem.

References:

Wechsler, David: Non-Intellective Factors in General Intelligence. Psychol. Bull. 1940, 37, 444-445 (Abs.).

Wechsler, David: Intellectual Development and Psychological Maturity. Child Developm. 1950, 21, 45-50.

Appendix 2.

Rorschach Test Characteristics of Institution Children.

In the original plan for the present study the Rorschach Test was included as a diagnostic instrument. It was expected, in fact, that this test would provide an important source of data. However, in considering the question of norms for the responses of children, it was decided that the present highly unsatisfactory position makes it unjustifiable to use the test as an experimental tool. The fact is that it is apparently regular clinical practice to interpret the Rorschach responses of children according to adult norms. Feeling this to be a somewhat dubious procedure, a review was made of the literature in an attempt to discover how far the responses of normal children have been found to follow the adult pattern, and what variations are to be expected in the protocols of normal children.

Surprisingly, it was found that among all the vast literature on the Rorschach Test, there has been published in English only about a dozen normative studies of children's records, and most of these have involved too small numbers to be at all conclusive. There are, of course, numerous clinical studies using the Rorschach in diagnosis, or defining the characteristic responses of given abnormal groups, but it seems that Rorschach workers have given little consideration to the typical records of normal children. In an attempt to

rectify this entirely unjustifiable position, an analysis was made of the existing studies of normal children's records to determine the typical trends at different ages, and how far one is justified in interpreting the signs by adult standards.

The group of children in the present study are about as homogeneous in background as one is ever likely to find, and on the whole they are pretty homogeneous in personality ...again, about as similar as one is likely to find. It was thought, therefore, that this group would provide an ideal one as a test study of the Rorschach technique (reversing the original plan), for given this group with known and definable characteristics, one can predict the expected type of response in the various signs used diagnostically, and obtain a correlation between expectation and actual findings. Furthermore, in the individual cases the assessment based upon the Rorschach records could be matched against the case-summaries published in earlier pages and a check obtained on the method in this way. This analysis has been made, but owing to the necessarily lengthy nature of the review, it was decided to admit it from this work, and to publish it independently, as it really forms a separate treatise.

Whilst sparing the reader this lengthy discussion of children's Rorschachs, it is perhaps of interest to mention the general conclusions. The reviews studied covered the

age ranges from 5 to adolescence. Although all covered 'normal' children (in most cases unselected samples from school populations, and mostly American), there was considerable disagreement between the findings in certain categories. In certain categories the responses of normal children appear to differ markedly from those considered normal in adults, and certain signs considered pathological in adult records are common in those of children: on the other hand, in certain categories where children's records have been generally supposed to differ from adults little or no difference was found in these studies. In certain categories the responses of normal children vary within such wide limits that it becomes difficult to say what constitutes an abnormal response. Some categories show a variation with age, so that interpretation must consider the age of the child.

In some of these studies the normal groups were used as controls for abnormal ones: the expected differences between the groups were not always found. In the case of the present study, the same result was obtained, certain of the responses that might have been expected from a group with the known characteristics of this one, were not actually given.

As a general conclusion, it appears that far too little is known about the test, and a great deal more knowledge needs to be acquired before it becomes a reliable instrument

either in research or diagnostic work with children. This is not necessarily a condemnation of the technique itself, but it is a criticism of the use that has been made of it in the absence of normative studies.

These conclusions will explain why the Rorschach material was dropped from this thesis, even though this meant abandoning one of the key positions in the original plan.

It is, however, of interest to compare the results of this study with others, even though the above remarks will discourage the drawing of clinical conclusions. Only two studies of the Rorschach responses of institution children have appeared in the literature. One, by Loosli-Usteri, was undertaken in Switzerland in the 1920's: the system of scoring then in use makes comparison with later studies difficult. The other study, using modern scoring conventions, was made in New York by Goldfarb in the 1940's. His study involved only 15 children (8 boys, 7 girls) aged 10-14 years, who were admitted to an institution at about six months and remained until about 3½, when they went to foster-homes. According to him they were 'institutionalised', and in other studies he has demonstrated this in comparison with other children reared wholly in foster-homes from the age of six months. It will be noted that the present study includes a much larger number of children. Owing to the

wider age range of the MF-group, not all of the results are strictly comparable.

The results on the major categories are as follows:

Mean Scores

	Goldfarb's Group n = 15	MF-group n = 41
R	11.68	23.5
W%	49.10	18.1
D%	46.26	59.4
W-%	46.99	----
F%	66.73	74.2
M	0.80	0.41
FM	0.80	1.0
A%	55.18	39.5
P	2.24	3.5
P%	19.07	14.9

In the following discussion, references to normal children's responses are those derived from the review mentioned earlier.

i. There is a marked difference in the average number of responses (R): although the mean age of the MF-group is lower, the R score is double. Both scores are within the normal range, although that of the MF-group is about average, whilst that of Goldfarb's group is rather low.

ii. The high W% of Goldfarb's group is unusual for children of their age, being more typical of those reported for younger children: the W% of the MF-group is similar to that of normal children. This group was not scored for W-, but none of their W's were 'good'. According to Beck, the difficult

cards for W with adults are II, III, VIII, IX, X; and VII is of intermediate difficulty. The distribution for the MF-group was:

I	II	III	IV	V	VI	VII	VIII	IX	X
19	19	1	19	21	13	7	I	4	0

It is seen that they are all clustered in the 'easy' cards, except for II (which suggests that the norms for children may differ from adults in this respect); all were 'platitudinous'. The correlation between W% and I.Q. was -0.15 ± .01.

iii. The D% of both groups lies within the normal range, but the normative studies cast this pretty wide, and leave one doubt as to the significance of the D score.

iv. The F% of both groups is somewhat above the normal range, which appears to be about 40-60%, without marked age trends.

v. The M score of both groups is somewhat below normal. It seems that normal children may be expected to have 1 or 2 per record (especially the older children), though zero scores are not uncommon. In the MF-group 63% scored zero. In this category the findings agree with expectation.

vi. Normal pre-adolescent children usually have 2 or more FM responses, and both groups are therefore rather low.

vii. The A% of Goldfarb's group is within the normal range, whereas that of the MF-group is rather below.

viii. Since a definite relationship is said to exist between H score and maturity, this is of special interest to a study of institutionalisation. In the normative studies there was found to be a fairly steady but small increase in the H score with age. Goldfarb does not quote an H score, but for the MF-group there was a mean score of 8.8%: this is only a trifle below the available norms. The range of variation was from zero to 41%, but there was little tendency towards an increase with age. These children might be expected to show a lowered H score, but as a group they show only a slight (and probably insignificant) inferiority to the norms: individual cases were mostly within normal expectation. The Hd scores were also normal.

ix. Some confusion exists in the scoring of P. According to Klopfer the normal adult record should contain 3 or 4 P responses. As is to be expected, children's records show an increase with age, P being rather uncommon with young children. On this basis Goldfarb claims that the low P score of his group reflects a lack of social conformity. From the normative studies it does seem that his group is low: by these standards the MF-group compares favourably with normal children. However, if one takes the P% instead of the P score, as some authorities do, then the MF-group is inferior to both normal children and to Goldfarb's group, for from such norms as exist the P% should be about 20%.

This is an instance of a commonly found difficulty in comparing Rorschach results, arising from the lack of a well defined standard of scoring.

x. In the Colour categories the scores of the two groups were as follows:

	Goldfarb n	Goldfarb %	MF-group n	MF-group %
Presence of at least 1:				
FC	4	27	14	34
CF	4	27	17	41
C	3	20	20	49
CF + C more than FC	5	71	21	51

Both groups differ from normal children in the Colour responses, for C responses in all categories are rather uncommon (in this the normative studies disagree with the generally accepted claims of the authorities). It is said that a high C reflects impulsiveness and a lack of socialisation of the emotions, and these results are not contradictory to this claim.

References:

Goldfarb, William: Rorschach Test Differences between family-reared, institution-reared and schizophrenic children. Amer. J. Orthopsychiat., 1949, 19, 624-634.

Loosli-Usteri, M.: Le test Rorschach appliqué à differents groupes d'enfants de 10-13 ans. Arch. d. Psychol. 1929, 22, 51-106.

Summary and Conclusions.

The main group of subjects consisted of 41 boys, all of whom had been admitted to the Institution during their first half-year of life, and had unbroken residence there since. Their ages at the commencement of the study ranged from 5-10 to 13-11, and in intelligence they ranged from an I.Q. of 60 to 108, with a mean of 84 (s.d. 10.5). Up to the age of approximately 5 years these children had been reared in the Baby Homes, and at that age were transferred to Cottages, where they joined a group of some 20 boys of school age. In the case of 20 of the subjects, called the F-group, they entered Cottages run by single women, and this group therefore lacked a father-figure. The other 21 boys, the M-group, were brought up in Cottages run by a married couple, and therefore had a father-figure. The F-group was somewhat older than the M-group, the means being 9-1 and 8-5. There was no difference in intelligence.

Owing to the lack of information, no reliable account could be taken of hereditary factors. All the children were illegitimate, and mostly the issue of somewhat inferior socio-economic levels of society. Before admission these infants had probably experienced poor standards of care, but the average age at admission was 15 weeks. Since admission they had received exceptionally good medical care, and their health was excellent. The group was made up predominately of prepubertal boys.

i. Masculinity-femininity factors. A specially devised measure of 'm-f' factors was applied to the subjects. Compared with control groups, they were shown all to be less-masculine than normal boys: the F-group tended to be not only less masculine but actually to go over into femininity. These results were related to the fact that neither group had been able to commence identification with a father-figure at the early age (i.e. about the second year) when this is most effectively done, since the Baby Homes have entirely female staffs. The boys in the F-group had been further effemininised by the system of care in the Cottages, whereas those of the M-group had gained some advantage from the presence of a father-figure. The results of this study suggest that much more attention must be given to the question of male influences in the staffs of children's Homes, and that the presence of a father-figure is important even in infancy.

ii. The Draw-a-Man Test. This was used in connection with the above study of 'm-f' factors, as it has been shown to reflect them by other workers. On the whole it proved to be a not very effective instrument in the present instance because most of the drawings were too primitive to be scored for the 'm-f' factors described. However, some indications supporting the evidence of the 'm-f' study were obtained.

The score on this test has been claimed to reflect social factors, and in particular social maturity; a review

of the literature on this subject was given.

Apart from the 'm-f' factors mentioned, no statistical differences between the M and F groups were found in the scores. The combined MF-group had a C.A. of 8-7 at the time of testing, and a mean Drawing mental age of 6-0. In no case was the D.M.A. equal to the C.A. and the depression of the score was taken to indicate the social immaturity of these children.

iii. Controlled Thematic Apperception Test.

This technique was described. The most striking result was the flatness of interpersonal relationships revealed by the test. An analysis was made of references to 'parental' figures, of which the most interesting result was the better attitude to women displayed by the M-group compared with the F-group, suggesting that the over-femininised system of care to which the latter were exposed has reacted unfavourably on their attitudes to the opposite sex. The fact that the so-called 'need for affection' is not operative in these children was also demonstrated, and this supports the contention made in Volume One that this need is an induced one and not innate. There was some evidence that the M-group was better adjusted than the F-group, though this evidence was not strong.

iv. The Wechsler Intelligence Scale for Children. This test was used in the hope that the Performance Scale might handicap the institution child less than the Verbal Scale, and that it

might give a more valid estimate of their level. On the supposition that the institution child is handicapped by the 'verbal deficiencies' of his environment, a higher score on the Performance half was expected. This expectation was not realised, the scores on the Performance Scale actually being lower, though not statistically so.

It was suggested that the institution child, being less exposed to the stimulating influences of the family, functions at a minimal level, as determined by the innate factors of neurological structure and the temperamental 'non-intellective' factors of intelligence, and that his relatively low level of intellectual functioning is related to the fact that these are not stimulated to optimum levels of functioning. In other words it is assumed that this group, given a more normal upbringing, would have functioned at a more average level, and some individuals from it at a superior level. This idea is of some importance to educational psychology, but the present study has failed to find a suitable method of testing the hypothesis, although there is good theoretical basis for the suppositions made.

v. A measure of Social Intelligence. This part of the work is put forward more as an experiment with a technique than as a definitive study. The method aims at measuring aspects of intelligent behaviour which have more to do with the successful manipulation of the social environment than

of the more abstract relationships involved in the formal tests of intelligence. The entity under examination is related to social maturity in much the same way as formal intelligence is related to intellectual maturity. As is to be expected, a moderate correlation was found between the score on this test and both age and formal intelligence, but the examination of individual cases showed that factors somewhat independent of these were being measured, which were related to differences in the observed personalities of the subjects. The experiment is regarded as successful, though modification and better standardisation are necessary to the production of a sound research instrument.

The MF-group was shown to be inferior to a group of boys with a similarly abnormal background, but different methods of care: this was probably related only to the fact that the latter group was of average intelligence. No statistical difference was found when comparison was made with a matched group of similar intelligence, which suggests that the 'closed' institutional experience of the MF-group has not been the cause of their depressed level of function: this is probably due more to the fact of deprivation, than to the method of care subsequent to deprivation.

vi. A Comparative Study of Early and Later Deprivation. A comparison was drawn on several measures of intellectual functioning between the MF-group and a group of 28 boys

admitted to the same institution between their fourth and fifth birthdays. Most of these boys had had some sort of home life prior to admission, though in most cases it was probably poor. On the assumption that any sort of family-life, however poor, is to be preferred to institutional experience in infancy, it was expected that the later-deprived group would show a superiority over the early-deprived group. The differences found were small and mostly insignificant. On the whole this study gives little support to the claim that institution care in infancy is the worst possible; had the later-deprived group really had an initial advantage over the early-deprived, they might have been expected to maintain a superiority when subsequently reared in the same environment; there was no indication of a convergence as institution experience lengthened. Whilst certain fundamental differences in personality might exist (that is, the later-deprived group being 'resigned' instead of 'unacculturated', as discussed in Volume One), the ultimate results appear to be little different. Deprivation is unfortunate at any age: the emphasis on infancy made by Bowlby and others is doubtless important, but later factors are equally important and need the same emphasis. The evidence of the previous section corroborates this.

vii. Case-histories. Much of the material of these has been analysed in the previous sections. Whilst an analysis of the

cases could be made in several other dimensions, attention is drawn to the following:

a. On the whole the personalities portrayed in these histories are flat: there is little of the warmth and spontaneity one expects in children reared under family conditions, and there is reduced individuality.

b. Although individuality is reduced, and the range of variation is less than one would expect in an unselected group of normal children, it is not lacking altogether. Individual differences remain, although these children have been reared in an environment that is unusually (though not totally) homogeneous.

c. Attention-seeking behaviour, and 'craving for affection' were almost entirely absent: it is suggested that this is because the bases of such behaviour has never been built, as they are in the process of family-development. These children are most matter-of-fact about their circumstances: they are not people who have 'lost' something, for they have had little of the experiences that are so stimulating to the family child, but so disturbing if withdrawn.

d. On the whole these children were quite well adjusted to their present circumstances. With the exception of one or two showing prepsychotic symptoms, manifestations of maladjustment are surprisingly absent. Whilst differing from normal children, they are adjusted to their cultural

circumstances and are making an adequate adaptation to them.

e. Whilst functioning as reasonably well-adjusted persons in their present environment, one can foresee difficulties in the case of some of them when they enter the more varied and exacting conditions of urban life. Many lack the adaptability to adjust to this change, and the initiative necessary to the keener competition. They are immature, and liable to impulsive reactions which may lead too readily to delinquency. Many are under-masculine or frankly effeminate, which may well lead to difficulties in acceptance by their male peers, with consequent feelings of inferiority, and again the risk of delinquent or neurotic breakdown. (The relative lack of socialisation makes delinquency more probable than neuroticism.).

f. The lack of inter-personal contact and shallow affectivity of these children is an adaptation to their present circumstances, but renders satisfactory friendships difficult. One can foretell later troubles, especially in setting up stable family relationships themselves, and in some cases the danger of psychopathic personalities.

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