FAMILY DRAWINGS, INDIVIDUAL /
GROUP IDENTITY AND GROWTH

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ABSTRACT

FAMILY DRAWING, INDIVIDUAL/
GROUP IDENTITY AND GROWTH

By

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Draw-A-Family pencil drawings were collected from
456 students in two public schools, grades one through
six, and from 84 disturbed students. The scoring system,
based on Fromm's theory of <u>high group identity/low individ-
ual identity</u> -- <u>low group identity/high individual identity</u>
as related to growth and truncation of growth, utilized a
Scoring Matrix with High and Low Growth columns, and High
and Low Group Identity Rows. The resulting four quadrants
were labelled Dependence, Overdependence, Independence and
Counterdependence. Two techniques were developed for sort-
ing the drawings into quadrants.

One scoring system, the <u>Position</u> sort, is objective,
being based on the position of the "me" in the family draw-
ing. The other, the <u>Relational</u> sort, is subjective, involv-
ing judgments of relations like closeness-distance, and
affection-encroachment among family members. Two independent
judges achieved an overall agreement of 74% in this second
sorting system.

The hypotheses were that younger normal children would tend to fall in the dependent quadrant of the Scoring Matrix, with older normals shifting to independence; that younger desturbed children would cluster in the overdependent quadrant, with older disturbed tending more toward counterdependence; and that, overall, normal drawings would cluster into the High Growth column, with disturbed drawings falling in the Low Growth column.

Results with the Position technique support most of the hypotheses for boys, but not for girls. This difference results from assumptions about the meaning of the "me" drawn next to the parents. In older boys, "me" next to the mother had been classed as dependence, whereas it obviously implies overdependence. Younger girls placing the "me" next to mother were classed as independent, instead of the more obvious dependent; and the reverse was true when "me" was drawn next to father. With these adjustments to the Position scoring system, all the hypotheses were supported, except for discrepancies related to social class and race. Normal lower-class children's drawings tended to fall into the Low Growth column of the Scoring Matrix, expecially for boys, much as did the disturbed children's. Normal black children's drawings disproportionately fell into the counterdepence quadrant. The adjustment of lower class children, in light of their family drawings, could involve less closeness between child and parents at earlier ages. For the blacks, the use of isolation as an adaptive

technique appeared likely. An additional finding was that disturbed children placing the "me" next to the like-sex parent tended to represent that parent as impotent, "goofy" or "gimpy" looking.

With the Relational scoring system, hypotheses were generally supported for both sexes, although there were much the same discrepancies for the lower class and blacks as in the Position sort. There was also a similar tendency for the youngest normals to collect in the overdependent quadrant.

Usefulness of the sorting techniques might include research, clinical practice and group screening for emotional problems, However, the Relational sort seems inappropriate for the latter because of it's complexity. The Position sort is simplistic and objective, and shows promise as a screening device - but only after validation of the modifications derived from the data in the study.

FAMILY DRAWINGS, INDIVIDUAL/

GROUP IDENTITY AND GROWTH

By

Franklin R. Kirby

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To Lauri and Ken Jay

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CHAPTER I

PROBLEM

The child's drawing of his family has been used for some time by child guidance workers as an aid in understanding disturbed children. However, this technique has been used primarily on an "intuitive" basis, because there are no norms which differentiate drawings on the basis of age, sex or emotional well-being. Although other drawing techniques have been widely studied, they do not provide the clues to family dynamics and interactions which are of such moment in the world of the child.

The family drawing is readily obtainable from groups of children, and could potentially be of help as a rapid screening device for school personnel concerned with the troubled or incipient problem child.

The goal of this study is to examine a number of children's drawings of a family in the light of a theory of group and individual identity, across age, sex, race and adjustment, in an attempt to establish some workable norms for practical use. In essence, this will result in a theoretical, developmental and clinical study.

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Review of the Literature

Although the literature teems with articles on children's drawings (DAP, DAM, HTP, DAA, etc.), there appear to be only nine articles on the family drawing technique.

In 1931, a child psychiatrist (Appel, 1931) had his clients draw pictures of themselves and family members separately. Then he elicited comments from the children about their drawings, interpreted them psychoanalytically, and thus felt he gained insight into their problems. However, there were no drawings of the family as a group, and thus no possibility of looking at the family structure and group identity.

The first full-fledged use of the family drawing was reported by Wolff (1946), who was searching for a unifying concept with which to help him understand the behavior of the preschool child. Wolff looked at a number of family drawings of nursery school children and presented individual cases to elaborate on various qualitative factors which he felt to be of importance. These were: omission of limbs of family members, size differences, ordering of family members, size differences and expressiveness of facial features, lack of differentiation of any or all figures (especially feeling of self as small and undifferentiated), and general expressive features of the lines (as chaotic vs. rhythmic, angular vs. round lines). Although he did not quantify his results, Wolff concluded that the

". . . drawing of the family reveals the child's specific attitude toward each member of the family as well as his wishes and fears concerning them" (p. 142). From his total study, Wolff claimed that a unifying concept regarding children's behavior did emerge: "the child's search for self--Who am I? What am I for? The child does not explore the world only in order to gain knowledge, but also to differentiate himself from his environment" (p. xiv).

The next study was undertaken by Hulse (1951), who used family drawings as a diagnostic aid in treating child patients. Using the instruction "Will you draw your family (for me)?", he collected "several hundred" drawings from "disturbed" children of all ages. Hulse was looking for signs of oedipal conflicts in the drawings, and felt that the following signs were helpful discriminators: size of figures, relationship to each other, distribution in space, strength of pencil stroke, shading, coloring, omissions, and cartoon effects. He concluded, however, that of even greater significance was the overall gestalt of the picture. Unfortunately, he gives only four examples of this general gestalt factor: the sense of being "up in the air," family members removed to the background, the feeling of being an "outsider," and the feeling of weaknesses in family members, because of thin arms.

Hulse followed up with another study (1952) in which he collected drawings of "normal" children to see if they

also revealed family conflicts. An interesting sidelight
is that in discussing his project with New York public
school teachers, he was informed that a large number of
the regular classroom pupils were seen by the teachers as
having emotional disturbance, although they had not been
referred for help. Accordingly, Hulse collected drawings
only from those children the teachers felt were "well
adjusted." In his analysis, he compared 120 such drawings
with those of his patients mentioned in the study above,
and concluded that practically every drawing revealed some
form of family conflict. Although he did not quantify the
results, Hulse felt that children ". . . project their
unconscious conflicts very definitely into their family
drawings, and give us a great deal of insight into the
family constellation, as it is experienced by the child"
(1952, p. 72).

In Germany, Flury collected family drawings from
children in a psychiatric observation hospital (from 1943
to 1954), by instructing them to "Draw your family,"
(Flury, 1954). Again, there is no quantification, but
Flury does present 30 cases which illustrate things like
theme, size relationships, coloring, posture, placement
of figures, omissions, or additions. Flury's purpose for
making the study was to find "laws" which could be applied
to every drawing variable; for example, that the use of
somber colors would invariably be associated with

underlying depression, or that chronic masturbators or
thieves would always betray themselves by omitted hands in
their drawings. He concluded that although these kinds of
". . . peculiarities recur again and again . . .," they
were not found to have invariant relationships to any given
type of emotional or behavioral problem (p. 124).

In the first reported attempt at objective quantifi-
cation, Martin (1955) took off from Wolff and looked at
the family drawings of secure vs. insecure children. He
tested 75 children, kindergarten through grade two, with
the suggestion that each ". . . draw us a picture of his
family" (p. 330). The drawings were rated on symmetry,
determination of strokes, expansiveness, centering, sharp-
ness and distinctiveness of features, activity, and differ-
entials between figures on the foregoing items. The data
were analyzed by t tests, which revealed only one variable
to be of statistical significance in differentiating the
secure from the insecure children. It was found that the
insecure group was more <u>expansive</u> than the secure group.
Unfortunately, however, this was in a direction opposite
that predicted by Martin.

A second objective study was made by Reznikoff and
Reznikoff (1956), with the intent of determining the effect
of sex, social class, IQ and race on the family drawing.
They asked 100 black and white boys and girls of low and
middle income families to draw their family, including

themselves. The results indicated that boys omit the mother or her arms significantly more often than girls, and are also more likely to place themselves in the middle of the family group. As compared to middle income children's drawings, low income children made themselves the smallest figure, omitted mother more, drew father without arms, made an older sib the largest figure, and drew the family as if floating in air. The negro children more frequently omitted people's fingers and their own siblings. There was no IQ differential reported by the authors. Their conclusion was that sex, class and race did have some differential effect on the family drawing, at least in the factors they looked at.

The first (and last) objective and quantified study attempting to look at children's adjustment as expressed in their family drawings was done by Lorand (1957). Here, 600 children (kindergarten to grade 9) were asked first to draw a same-sexed person, then instructed "On this page I want you to draw a picture of your whole family. Be sure to put in everyone, including yourself" (p. 21). After 14 minutes, they were asked to label the family members. The drawings were rated for maturity level on the Lorge-Dunn Maturity Rating Scale (In Lorand, unpublished), and the children's adjustment was rated by their teachers on the Haggerty-Olson-Wickman Behavior Rating Schedules (H-O-W), (1930). Lorand found that correlations between rated

maturity of family figures and H-O-W scores were all signi-
ficant (.01), but small. Girls who drew mother less com-
plete were rated as less mature by their teachers, as were
boys who drew themselves partially. Also, much lower
maturity ratings on the family drawings than on the drawing
of a person were negatively related to adjustment. This
last finding has an important bearing on the present study
because it indicates that (1) children's emotional problems
do have some influence on their family drawings; (2) the
family drawing tends to be more sensitive to emotional
factors than the drawing of a person, at least in children;
and (3) the child's emotional problems have a direct rela-
tionship to the family scene.

The most recent study (Shearn and Russell, 1969) was
done at a residential treatment center for disturbed
children ages 6 to 12, at the Colorado State Hospital, and
introduced the technique of comparing family drawings of
the child patient with those of his parents. Several
examples were presented which illustrated the dynamic
interplay between family members, with similarities and
dissimilarities between the drawings analyzed. These
researchers found that the instructions to "Draw a family"
almost always elicited drawings of the child's own family,
yet provided him with some latitude to draw some of his
own perceptions of himself in the group which might differ
from other's ways of seeing things.

Outside of methodological failings and lack of
adequate quantification, the major problem with all of
these studies seems to be their "hit-or-miss" approach to
analyzing the family drawing. There seems to be either the
attempt to glean small empirical nuggets, or to strike into
the mother lode of some theory of personality which focuses
on the dynamics of the individual. Attention given to group
or interactional factors has been minimal. Given the family
as a highly unified group with its own identity and rules
of the game, the writer feels that the potentially most
useful way of looking at the family drawing would center
more on the dynamics inherent in the unique processes of
the self-in-the-group. This approach would consider both
individual and group identity, and the reciprocal influ-
ences of one on the other. A useful way of looking at
this identity reciprocity has been outlined by Erich Fromm
(1941).

A System for Analyzing the Family Drawing: Theoretical and Empirical Foundations

Fromm: Freedom and fear, the self and others

Fromm believes that after a child is born it becomes
a biological entity, but that "functionally" it remains
one with its mother for some time. These psychological
ties are later extended to the family group and the
natural world surrounding the child, so that, like primitive

man, his deepest sense of personal identity includes
". . . the soil he lives on, the sun and moon and stars,
the trees and flowers, the animals, and the group of
people with whom he is connected by ties of blood" (1941,
p. 50-51). Although these primary ties of extended
identity give the individual great security by allaying
his fears of isolation and insignificance (the cog-in-
the-machine kind of security and significance), they
also block his full human growth.

> They stand in the way of the development of
> his reason and his critical capacities; they
> let him recognize himself and others only
> through the medium of his, or their, parti-
> cipation in a clan, a social or religious
> community, and not as human beings; in other
> words, they block his development as a free,
> self-determining productive individual" (p.
> 51).

But the growth forces are strong and hard to deny.
"Life has an inner dynamism of its own; it tends to grow,
to be expressed, to be lived" (p. 206). Fromm speaks of
expansiveness and spontaneity of growth as the child
grows stronger physically, emotionally, and mentally,
and with growing integration of all these parts. He
calls this end product of organization and integration
the "self" and speaks of the growth of "self-strength"
and freedom as individuation (p. 44). However, pro-
blems arise in that individuation always brings increased
aloneness, and if there have been weakening experiences
in the family group, the individual may renounce self and

freedom. If this happens, the self is abandoned to a new group, wherein one can submerge one's aloneness in new ties of dependence and functional oneness. The self is thus surrendered by being offered up to an emotional "symbiosis."

New problems are created by these symbioses, and paradoxically enough, because of the very potency of the growth tendency.

> It seems that if this (growth) tendency is thwarted the energy directed toward life undergoes a process of decomposition and changes into energies directed toward destruction . . . <u>Destructiveness is the outcome of unlived life.</u> Those individual and social conditions that make for destruction that forms, so to speak, the reservoir from which the particular hostile tendencies-- either against others or against oneself--are nourished" (p. 206-207).

Out of the surrendering of self arises three major character types, according to Fromm. These are: (1) Those who feel small and insignificant, who turn their hostile energies against themselves, or elicit punishment from superior powers, to which they also tend to cling; (2) Those who feel others are small and insignificant, and cling to them because they need them symbiotically in order to prove their own greater power by bullying or humiliating them; and (3) Those who withdraw and isolate themselves in a fantasy annihilation of everyone else, thus preserving some sense of self.[1]

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[1]These types seem highly similar to Horney's Neurotic Trends; moving <u>toward</u>, <u>against</u> or <u>away</u> from people, (Horney, 1945).

These first two character types are extremely dependent on the relationships with those in their groups, and thus would have a high level of group identity. The third type pulls away from people, and thus would have a low level of group identity.

As the only alternative to surrender of self, which does not block growth, Fromm sees a new way of relating to the world, but one which comes not from weakness but rather from strength--strength of self. This new way is a "spiritual relatedness" which is chosen out of freedom, rather than run to out of fear. It consists of ties of caring, involvement, productivity and potency with others in the world.[2]

These ideas about human growth might be simplified to the movement of the person from Low individual identity/High family group identity to High individual identity/Low family group identity. When the individual is young and dependent, because of his feelings of helpless insignificance, his own identity is submerged in that of the family group in such a way that he assumes some of the group's potency and significance. He actually opens up his identity boundaries to encompass the group.

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[2]Perhaps Fromm's spiritual relatedness is best expressed in lines from Robert Frost's The Silken Tent (1964):

  And its supporting central cedar pole,
  That is its pinnacle to heavenward
  And signifies the sureness of the Soul
  Seems to owe naught to any single cord,
  But strictly held by none, is loosely bound
  By countless silken ties of love and fhought
  To everything on earth the compass round . . .

Given parents who are themselves relatively secure as individuals, the child is prodded at the right times, and sheltered when really needed, which enables him to have fuller and fuller experiential intercourse with the world. This results in the growth of a deep and wide experiential fund (of both oneself and of others), with hurts, angers and disappointments, but more importantly with unshakable feelings of worth, significance, potency and caring. Thus, the self becomes "actualized," the group no longer provides the sense of strength needed for growth, and the identity boundaries are closed in about the individual. He is then alone, but with bridges of caring and productive investment spanning the void between himself and others.

The complications that can arise for the individual in this natural growth process are due to the problems within the family group, which give rise to group symbiosis or isolation. In the symbiotic group there is an attempt to maintain a very high level of group identity as a protection against fear and change (which includes growth), which causes overdependence in group members. Because of the destructively channeled thwarted growth forces, this overdependence can lead to masochistic submissiveness or bullying in the group. In the isolated group, the members feel insecure and untrusting, unloved and separate from others, resulting in counterdependence,

low group identity, and destructive feelings directed
toward others. These dynamics could be simplified to
submerged self/symbiotic group and isolated self/frag-
mented group.

Combining high and low group identity with high
and low growth patterns yields the following diagram:

	High Growth	Low Growth
High family group identity		
Low family group identity		

The left column indicates the positive growth pro-
cess from early to late childhood, while the right
column refers to disruptions of the growth process.
Across the top row the child's identity is subordinated
to that of the group, while the bottom row reflects the
waning influence of the family group identity on the
identity of the child.

The next step is to fit this theoretical model
to the empirical scoring dimensions derived from pilot
studies on the family drawing.

The Pilot Studies

The pilot studies were based on the assumption that
a child's family drawing will show significant represen-
tations of the child's identity within the larger family
group identity.

The first pilot was done in the Spring of 1966 by the writer, and consisted of comparing drawings from about 20 third graders in the Haslett Elementary School with about 50 drawings from the files of the Lansing Child Guidance Clinic. Out of this comparison a rudimentary scoring system was developed (about ten items), and related to individual and group identity theories.

The next pilot study was done in the spring of 1968 with about 75 first, second and third graders in the Portage School system, and about 20 children in Kalamazoo County emotionally disturbed classrooms. The teachers filled out a rating scale developed by the writer which it was hoped gave some indication of the pupil's growth and emotional adjustment. In comparing the adjusted and maladjusted groups, several interesting points came to light. The most significant was that within the adjusted group, about 2 per cent of the first graders placed themselves next to the like-sex parent in the drawing, whereas 90 per cent of the third graders so placed themselves. The second graders were split about 50-50 on this placement. This suggests a very definite change in the child's personal identity system. In addition, not one of the disturbed children (age 9 - 11) placed himself next to the like-sex parent, (that is, exclusive of tucking himself between mother and father). Further, when these children placed themselves within

their sibship, they were more likely to be last, isolated

from the others, encroached on physically by others, or

submerged in the group. The adjusted kids were more

likely to place themselves first, or at the prominent

spot in the sibship. In addition to these position fac-

tors, other scoring dimensions were worked out to yield

the following list:

Structure of drawing

(1) Position of subject in overall group
(2) Position related to each parent
(3) Distance-closeness of figures
(4) Encroachment-isolation of figures
(5) Affectional contact between figures
(6) Stance of figures
(7) Plane of figures

Bodies of family members

(1) Reality of appearance (as stick figures, cartoon-
        like, general realism)
(2) Size (overall and differentials in body parts)
(3) Omissions-additions
(4) Facial features, expression
(5) Embellishments (Positive or negative; good
        feeling or demeaning)
(6) Sexual differentiation of figures
(7) Stereotypy of figures (Degree of variation between
        figures in attire, stance, posture, expression)
(8) Action, feeling of aliveness

Also in this pilot study the children were requested

to draw a group of their friends as a kind of control on

the family drawing. It was found that these drawings

differed from the family drawings on many of the above

scoring dimensions, thus providing further support for

the contention that the family drawing does express some-

thing unique about the child in his family group.

Integration of Theory and Empirical
Scoring: The Scoring Matrix

It was at this point that the writer began to see

a fit between the results of the pilot studies and

Fromm's theory regarding identity, freedom and growth.

It was then discovered that the scoring dimensions pre-

sented above fit almost perfectly into the previously

presented Identity-Growth diagram, as follows:

	High Growth	Low Growth
	Quadrant 1--Dependence	Quandrant 3--Overdependence
High Family Group Identity	**A. Position Factors**	**A. Position Factors**
	"Me" next opp-sex parent	"Me" in sibship
	"Me" 1st; sibs by parents	"Me" between parents
	B. Relational Factors	**B. Relational Factors**
	Real people	Unreal people (cartoon, etc.
	Non-demeaned people	Demeaned people
	Positive embellishments	Negative embellishments
	Fair to good proportions	Poor proportions, all people
	Close w/o encroachment	Overclose, encroachment
	Affectional contact	Non-affectional contact
	Some sex differentiation	Little or no sex differentiation
	Few major omissions	Major ommissions

High Growth	Low Growth
Quadrant 2--Independence	Quadrant 4-- Counterdependence
A. Position Factors	A. Position Factors
"Me" next like-sex parent "Me" independent	"Me" last, sibs by parents "Me" isolated
B. Relational Factors	B. Relational Factors
Real people Non-demeaned people Positive embellishments	Unreal people ("Me" only) Demeaned people ("Me" only) Negative embellishments ("Me" only)
Good proportions Optimum distance Doing something High sex differentiation No major omissions	Poor proportions ("Me" only) Isolation Turned away, differentness Poor sex differentiation Major omissions ("Me")

(Left margin, vertical: High — Low Family Group Identity)

As can be seen, the scoring dimensions are broken

down into Position factors, which are scored by the

position of the "Me" in the family group, and Relational

factors, which deal more with the relation of the "Me" to

the other group members.

In looking at the scoring factors, it can be seen

that those concerned with Position are much more objective

than the Relational ones, and therefore easier to learn,

and more economical and reliable to use. The assumption

underlying the use of Position is that the "Me" placed

next to somebody reflects approach vector(s) to that

person, either as they are in reality, or in wishful

thinking. These approach vectors can be founded in

good feelings (caring, admiration, positive identifica-

tion), or in bad feelings (fear, stifled rage, deprivation,

guilt, identification with the aggressor, etc.). The
Relational factors are concerned primarily with closeness-
distance, enhancement-denigration, freedom-boundedness
and real-unreal.

The application of these two scoring systems to
the sample of drawings will be taken up next. Of special
interest in terms of developing a screening device will
be the comparative validity of the Position vs. the
Relational systems.

CHAPTER II

HYPOTHESES

The foregoing theoretical presentation has sug-
gested how relationships between individual and family
group identity can promote or retard the child's growth
of self and emotional well-being.

When a child draws a picture of a family, there is
evidence that he pictorially and expressively represents
the identity and growth dimensions of himself, his family
group, and himself-in-the-group. However, there have
been no studies with the family drawing technique which
have established any norms for use in this way.

The purpose of this study, then, can be divided into
two major goals: the establishment of some developmental
norms for the family drawing technique, using the pro-
posed scoring system; and the validation and/or discovery
of scoring factors which will differentiate maladjusted
children's drawings from those of better adjusted
children. The tool to be used is the Scoring Matrix,
into which family drawings can be sorted by Position and
Relational factors.

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In the Scoring Matrix we have the two independent variables of age (or grade), and adjustment. The reciprocal of Family group identity/Individual identity is assumed to be negatively associated with age, and growth to be positively related to adjustment. The four quadrant Matrix can be assessed across the Identity or Growth dimensions alone, or in terms of the interactions between these dimensions via the individual Quadrants.

The hypotheses to be used are designed primarily to test the validity of the sorting techniques in terms of a straightforward "fit" with the real world. If the sorts are valid within the framework of the Scoring Matrix, then we would predict the following results: Younger, normal children would tend toward Dependence, with older, normal children shifting to Independence. Younger, emotionally disturbed children would tend toward Overdependence, whereas the older disturbed kids would move more toward Counterdependence. Disturbed children should be proportionately higher than normals on Overdependence and Counterdependence, and increasing age should not change this picture. The hypotheses, then, should be predictive of these results.

Hypothesis I: The family drawing of a child will vary in its placement on the Scoring Matrix as a function of the child's age and adjustment.

Hypothesis IA: The drawings of younger,
                  adjusted children will tend
                  to cluster most in the <u>High
                  group identity-High growth</u>
                  Quadrant of the Matrix.

Hypothesis IB: With increasing age of subjects,
                  the family drawings will tend to
                  move from the <u>High group identity-
                  High growth</u> Quadrant of the Scor-
                  ing Matrix to the <u>Low group
                  identity-High growth</u> Quadrant.

Hypothesis II: The family drawings of malad-
                  justed children will differ from
                  that of adjusted children, (con-
                  trolled for age, sex, social
                  class and race).

Hypothesis IIA: The maladjusted children's
                  drawings will tend to cluster
                  on the <u>Low growth</u> side of the
                  Scoring Matrix.

Hypothesis IIB: With increasing age, the malad-
                  justed children's drawings will
                  move from the <u>High group identity</u>
                  row to that of <u>Low group identity</u>,
                  but not as much as the movement
                  of the adjusted children's drawings.

Hypothesis IIC: With increasing age, the malad-
                  justed children's drawings will
                  tend to remain within the <u>Low
                  growth</u> column of the Matrix.

CHAPTER III

METHOD

Children in two elementary schools and eight ungraded rooms for the emotionally disturbed made drawings of "a family," which were sorted by (1) Position determinants and by (2) Relational determinants. Within each of these sortings, the drawings were segregated into normal and disturbed samples, which were analyzed by age (or grade), sex, social class, and race.

Subjects

There were 540 drawings in the total sample. It was necessary to discard 119 because of lack of self-representation, omission of parents, or other defects. The normal group lost 100 drawings and the disturbed group lost 19, leaving 456 normal and 84 disturbed drawings.

Normal Group

Of the 456 normal drawings, 222 came from Edison Elementary School, and 234 from Milwood Elementary, both in the Kalamazoo City School System. There were 215 boys', and 241 girls' drawings; grades one through six,

ages six through thirteen. (See Appendix C for breakdown by school, age, grade and sex).

Emotionally Disturbed Group

The overall emotionally disturbed sample of 84, made up of 66 boys and 18 girls, came from two major sources: 41 from special education classrooms, and 43 from the regular classrooms, via teacher rating.

The Kalamazoo emotionally disturbed classrooms are made up of pupils who present severe problems of management or withdrawal in the regular classroom, but who do not meet the requirements for the special classes for "perceptual disturbance"--(an educational euphemism for brain damage). There are only four classrooms for the disturbed child in Kalamazoo County, and the classes are kept under 10 pupils each, so they probably contain some of the more severely disturbed children in the school system. The writer visited these classrooms, and felt that a high proportion of these children would be diagnosed as schizophrenic.

Because there were only 26 drawings from the Kalamazoo classrooms, the disturbed rooms in Grand Rapids were also tapped, for another 14 drawings.

Teachers in the regular classrooms identified the children they thought emotionally disturbed, and were reminded not to overlook the extremely overdependent child. (See Appendix C for a breakdown of the emotionally disturbed sample by source, sex and age.)

The disturbed drawings from the two sources were combined into a single sample because their scores were similar in the Scoring Matrix.

Sex, Age, Grade, Race, Social Class

The sex of the subject was deduced from his first name, while age and grade were self-reported. Black subjects' drawings were identified by their teachers.

The Social Class variable was determined primarily by the location of the schools involved in the study. The middle class Milwood School is located in census tracts with an average home value in 1960 of $14,560, whereas the average home value for the lower class Edison School tracts was $9,330 (Bennett, 1961). The range of home values in Kalamazoo at the time (the tract medians) was $7,700 to $19,300, ($12,000 median) so that the middle class and lower class designations seem appropriate for the two school districts. One of the Kalamazoo emotionally disturbed classrooms is located in the Milwood School, and another in the Lexington Greens School (an area of the same level homes as Milwood). The other two disturbed classrooms are in the Comstock School System, where the average home value is $8,300. The teachers of the disturbed classrooms in Grand Rapids identified their pupils as middle or lower class.

Collecting the Drawings

Administration

The participating teachers administered the drawing test to their classes on the basis of written instructions (see Appendix B), and using 8-1/2 x 11-1/2 white paper with a place provided for name, age and grade in the upper right.

Among the few reports of administrative problems were: one White boy who drew a Black family, then balked at labeling one of the members "me," but compromised by writing "not-me" over a like-sex child; a suspicious group in a disturbed classroom in Grand Rapids who felt they were being tested, so made the drawings on the back of the paper, and omitted the "me"--(all of this by a note from the teacher, who seemed a little suspicious herself).

The writer was also the object of an hour-long telephone harrangue from a mother who had gone to the principal and demanded her son's drawing, because she suspected that the school superintendent might use it against her. She seemed to fear that something was wrong with her son (which his teacher confirmed), but which she could not own up to.

Scoring

The identifying data were masked on the drawings, which were shuffled, then sorted by <u>Position</u> and <u>Relational</u> determinants. After the two sortings, the drawings were divided into normal and emotionally disturbed groups, which were analyzed separately.

Position

In the <u>position</u> sort, the drawings were first assigned to one of eight possible positions of the "me" in the family group, which determined the second step of placing the drawings in a Quadrant of the Scoring Matrix on the basis of its position, as follows:

	<u>High Growth</u>	<u>Low Growth</u>
High Group <u>Identity</u>	Next opp-sex parent 1st; sibs by parents	In sibship Between parents
Low Group <u>Identity</u>	Next like-sex parent Independent	Last; sibs by parents Isolated Oppositional

Sorting the drawings for all but three of these determinants is objective, and therefore quite easy to learn. The three subjective determinants are the "me" <u>independent</u>, which requires that the "me" have distance, but is doing something (there may be intervening objects, but they are part of the scene); "me" <u>isolated</u>, judged by distance, but the "me" not doing anything, or with intervening objects which are instrusions in the scene, or

with walls in the way; and "me" oppositional, which shows

conflict, or hostile type behavior. Two independent

judges agreed .84, .72 and .80 respectively on these

three subjective placements, with the overall agreement

being 79 per cent.

Relational Sort

Two judges independently sorted the drawings on the

basis of the Relational determinants, by assigning each

drawing to one of the quadrants of the Scoring Matrix.

About a third of the drawings were found to have high

clustering of these determinants, and thus fit easily

into one of the four quadrants. Another third had suffi-

cient clustering of factors to provide strong clues to

Quadrant placement. The remaining third showed such

slight clustering of the Relational determinants as to

necessitate "forcing" into a Matrix Quadrant.

Agreement between the judges' sorts averaged 73 per

cent. Sorting was done in a series of six sub-groups,

with consecutive agreements of .69, .73, .73, .73 and

.80. The judges together made the final placement of

the 27 per cent of drawings disagreed on in the indepen-

dent sort.

In attempting to sort the drawings according to the

Relational factors in the Scoring Matrix, it soon became

apparent that the judges were assigning drawings to

Quadrants by the following criteria:

Real people   "Group Gimp"
Non-demeaned people   "Group Mash"
Closeness w/o encroachment   Demeaned people
Possible sterotypy, but   Stereotypy, with
  w/o negative features   negative features

Real people   Isolation of "me" by:
Non-demeaned people   Distance
Distance w/o isolation   Barriers
No stereotypy   Different planes
Positive embellishments   Disproportionate sizes
No major omissions   "me Gimp"

"Group Gimp" refers to the sharing of similar

defective or demeaning qualities by all group members,

while the "mash" refers to the jamming together of group

members to give a mash-like quality to the drawing. The

"me gimp" refers to the negative, demeaning or defective

qualities applied only to the "me"; but there may be a

reversal in terms of everyone but the "me" being "gimped."

CHAPTER IV

RESULTS

The Position and Relational sorting techniques are
ways of placing the family drawings into quadrants of the
Scoring Matrix. The Matrix has two major dimensions,
Family Group Identity and Growth, both of which are
divided into high and low quadrants. The resulting four-
quadrant Matrix can be assessed across the Identity or
Growth dimensions alone, or in terms of interactions
between these dimensions.

The major variable theorized to affect Family Group
Identity alone is that of age; i.e., "younger" children
being associated more with high family group identity,
and "older" children more with low family group identity.
The hypotheses dealing with age changes and placement in
high and low group identity rows, then, test the validity
of the sorting techniques along this dimension.

The major variable associated with Growth alone is
that of adjustment, with the prediction that "normal"
children will be associated more with high growth, "dis-
turbed" kids more with low growth. The hypothesis con-
cerned with placement of normal and disturbed drawings

in high and low growth columns respectively, is intended
to test the validity of the sorting techniques along this
dimension.

The hypotheses dealing with placements in one of the
four quadrants of the Matrix concern interactions of
identity with growth, and are evaluated by analyzing age
and adjustment. These are more subtle tests of the valid-
ity of the sorting techniques in terms of their power to
discriminate interactive effects of the major dimensions.

The hypotheses listed under I concern the normal
sample, whereas those under II compare the disturbed and
the normal samples.

Position Analysis

Hypothesis I: <u>The family drawing of a child
will vary in its placement on
the Scoring Matrix as a function
of the child's age and adjustment.</u>

This is a general hypothesis which implies that the scor-
ing system should be sensitive to age differences in the
drawings of normal children. For the purposes of this
analysis grade rather than age was used, because of the
greater experiential similarity of children within grades,
and the cleaner computational possibilities offered by
six discrete grade levels as opposed to seven non-dis-
crete age groupings.

The results for this hypothesis appear in Figure 1,
for boys and for girls. It can be seen that there are

some differences in quadrants by ages, although there is
a reversal in quadrants 1 and 2 between boys and girls.
Chi squares for these data are given in Table 28, quad-
rants 3 and 4 being combined because of small frequencies
at later grades (see Appendix F, Table 28). The chi
square for boys is significant at the .01 level; that
for girls is nonsignificant.
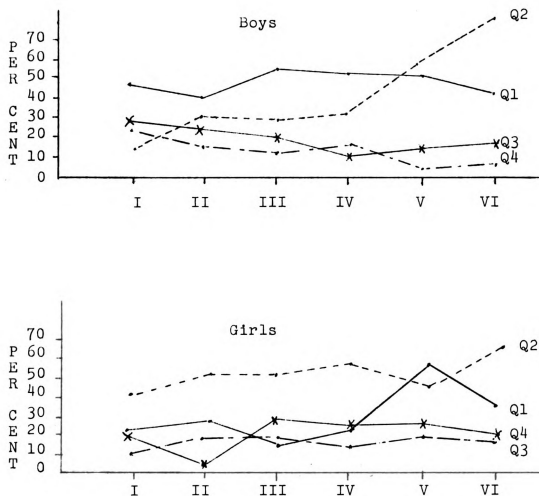
Figure 1. Per cent of boys and girls in quadrants at each
grade: Position analysis.

From inspecting Figure 1, it can be seen that the younger boys tend to quadrant 1, but with increasing age, they tend more toward quadrant 2. Quadrants 3 and 4 start out with medium percentages of younger boys, and both decline in frequency with increasing age.

The girls are consistently high in quadrant 2 at all grades except grade V. The reversal of quadrants 1 and 2 for boys vs. girls suggests that the sorting technique differs for the two sexes.

> Hypothesis IA: The drawings of younger, adjusted children will tend to cluster most in the High Group Identity/ High Growth quadrant of the Matrix.

This is a more specific hypothesis which says, in effect, that when normal children are younger (Grades I-III), their family drawings will show more dependent qualities as opposed to qualities of overdependence, counterdependence or independence, and accordingly will tend to be sorted more frequently than chance expectation into quadrant 1 of the Scoring Matrix.

Figure 1 indicates that for boys this seems to be the case, and the chi square confirms this, based on a 25 per cent probability that any given variable will be found in any single quadrant, (See Table 2). However, the hypothesis is not confirmed for girls, which is obvious both in Figure 1 and Table 2.

TABLE 2.--Observed and Expected Frequencies of Family
          Drawings in Position Analysis: Grades I-III,
          Quadrant 1 vs. Quadrants 2, 3 and 4.

Sex	Quadrant	O	E	x^2	p
Boys	1	51	30.75 (25%)	6.85	.01
	2,3,4	72	92.25 (75%)		
Girls	1	27	31 (25%)	.56	NS
	2,3,4	97	93 (75%)		

As was suggested from the results of Hypothesis I, there appears to be something in the Position sort which does not hold up for girl's drawings placed in quadrants 1 and 2.

Hypothesis IB: With increasing age of subjects, the family drawings will tend to move from the High Group Identity/ High Growth quadrant of the Scoring Matrix to the Low Group Identity/High Growth quadrant.

This hypothesis indicates that as children get older (grades IV-VI), their drawings will show more independent qualities when compared to the younger drawings' qualities of dependence, and that there will be a shift from quadrant 1 to quadrant 2, accordingly.

Figure 1 shows this trend for boys, but not for girls, who were high in quadrant 2 throughout all grade levels. Table 3 indicates the hypothesis supported for the boys, but not for the girls.

TABLE 3.--Position Analysis of Family Drawings: Grades
         I-III vs. Grades IV-VI, Quadrant 1 vs.
         Quadrant 2.

Sex	Quadrant	Grade I-III	Grade IV-VI	χ^2	p
Boys	1	51	36	5.18	.05
	2	26	41		
Girls	1	27	36	.56	NS
	2	56	56		

All of the hypotheses under I were confirmed for
boys, suggesting validation of the Position sort for them.
However, none were confirmed for the girls, indicating
that the sorting criteria should be reassessed for them.

Hypothesis IIA: The maladjusted children's
                  drawings will tend to cluster
                  on the Low Growth side of the
                  Scoring Matrix.

This is to say, the emotionally disturbed drawings
will show up more in quadrants 3 and 4 than in quadrants
1 and 2 when compared to the distribution of the normal
drawings.   This hypothesis concerns the Growth variable
with Group Identity held constant, making the prediction
that low growth will be associated with emotional dis-
turbance.

Figure 2 shows the proportion of drawings of nor-
mal and disturbed children sorted into the High Growth
half of the Scoring Matrix; (the curves for the Low
Growth half would simply be the reverse of these).   Age

is used here rather than grade because the children in the special education classrooms for the disturbed are ungraded.
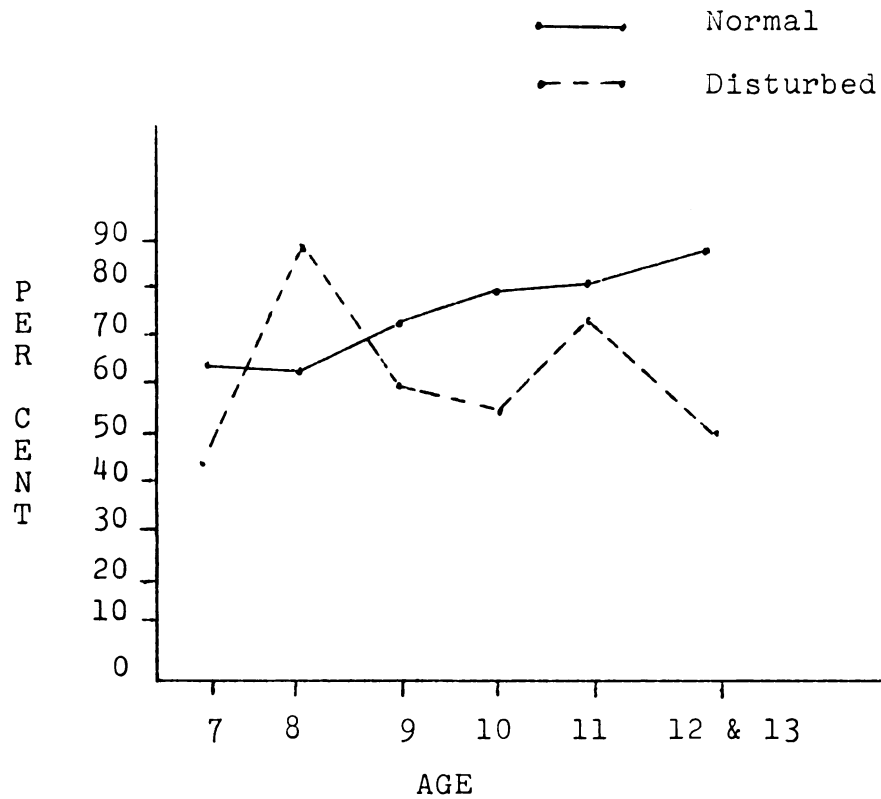
Figure 2. Per cent normal and disturbed in quadrants
          1 & 2: Position analysis.

The overall hypothesis is supported at the .05 level (Table 4). Table 4 also contains the chi squares for the variables of sex by social class, and race, in order to assess the effects of these factors on the sorting results.

TABLE 4.--Position Analysis of Family Drawings by Sex, Class and Growth.

Factor	Growth	Normal	Disturbed	x^2	p
Overall	High	329	51	5.01	.05
	Low	127	33		
MC Boys	High	84	13	6.90	.01
	Low	24	11		
MC Girls	High	103	4	Fisher's Test	.006
	Low	27	4		
LC Boys	High	70	30	.13	NS
	Low	35	12		
LC Girls	High	72	4	Fisher's Test	NS
	Low	41	6		
Blacks	High	25	5	Fisher's Test	NS
	Low	13	3		

It appears that a disproportionately low number of disturbed lower class boys' drawings were sorted into the Low Growth half of the Matrix. There were also a high number of normal lower class boys' drawings placed in the Low Growth column. This last effect also shows up for normal lower class girls, which suggests a social class factor in the sorting technique. That is, when compared

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to normal, middle class drawings, the normal, lower class children's drawings tend to be more like those of the disturbed children. In addition, drawings of disturbed lower class boys tend to be like those of all normal boys, with the effect probably in quadrant 1, older boys who draw the "me" next to the mother. The black children, who are all lower class, follow much the same pattern.

In Table 5 the results of the age levels for Hypothesis IIA (ages pooled because of low frequencies in the disturbed group) suggest that the drawings of younger normals tend to be disproportionately placed on the Low Growth side of the Matrix.

TABLE 5.—Position Analysis of Normal and Disturbed Family Drawings: Age and Growth.

Age	Growth	Normal	Disturbed	χ^2	p
6 & 7	High	76	4	Fisher's	
	Low	40	5	Test	NS
8 & 9	High	99	18	2.42	NS
	Low	53	7		
10 & 11	High	111	16	2.21	NS
	Low	28	9		
12 & 13	High	43	13	9.63	.01
	Low	6	12		

Following up the apparent discrepancy in the normals by age, Table 6 shows that younger normals do tend

to be disproportionately placed in the Low Growth column, as compared to older normals.

TABLE 6.--Position Analysis of Normal Family Drawings: Sex, Age and Growth.

Sex	Growth	Age 6-9	Age 10-13	χ^2	p
Boys	High	81	73	8.93	.01
	Low	45	14		
Girls	High	94	81	5.06	.05
	Low	48	20		

Hypothesis IIB: <u>With increasing age, the maladjusted children's drawings will move from the High Group Identity row to that of Low Group Identity, but not as much as the movement of the adjusted children's drawings</u>.

Here, Growth is held constant and Group Identity is varied, with the prediction that the High Group Identity row (quadrants 1 and 3) will contain more younger children's drawings, and the Low Group Identity row (quadrants 2 and 4) more older children's drawings; the effect being more pronounced for normals than for emotionally disturbed.

Although Figure 3 indicates a slight trend in the hypothesized direction for the normals and disturbed, neither reaches statistical significance (see Appendix F, Table 29).
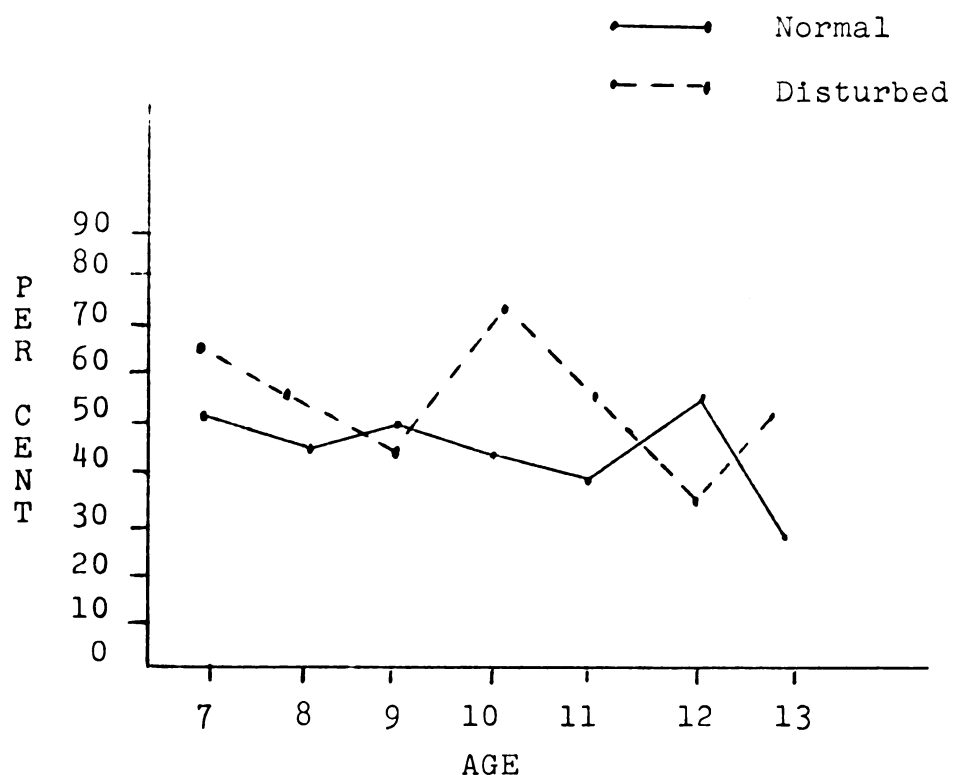
Figure 3. Per cent in High Group Identity Rows, normal
and disturbed: Position analysis.

In breaking the results down by age, the normals

show the hypothesized trend at age 10 and 11, and the

disturbed at age 12 and 13, but these do not reach

significance (Table 7).

TABLE 7.--Position Analysis of Normal and Disturbed Family
Drawings: Age and Group Identity.

Adjustment	Group Identity	Age 6&7	8&9	10&11	12&13	X^2	p
Normal	High	52	77	56	26	3.72	NS
	Low	54	79	83	23		
Disturbed	High	6	13	16	11	2.57	NS
	Low	3	12	9	14		

Hypothesis IIC: <u>With increasing age, the malad-
justed children's drawings will
tend to remain within the Low
Growth column of the Matrix.</u>

This hypothesis is based on the assumption that
increasing age of the disturbed children should not influ-
ence their drawings towards movement out of the Low Growth
column. Figure 2 and Table 8 offer support for the
hypothesis.

It should be noted that significant chi squares
here indicate an actual <u>increase</u> for the older disturbed
frequencies in the Low Growth column. Those variables
that did not reach significance do not, on inspection,
show a decrease in frequency in the Low Growth column
with age increase, and thus do not represent a reversal
of the hypothesis.

TABLE 8.--Position Analysis of Family Drawings for Older Children (Age 10-14): Adjustment and Growth.

| | | Growth | | | |
		High	Low	χ^2	p
Overall	Normal	154	34	11.35	.001
	Disturbed	29	21		
MC Boys	Normal	37	5	14.38	.001
	Disturbed	5	10		
MC Girls	Normal	40	8	Fisher's	
	Disturbed	1	1	Test	NS
LC Boys	Normal	36	9	.02	NS
	Disturbed	22	5		
LC Girls	Normal	41	12	Fisher's	
	Disturbed	1	5	Test	.005
Blacks	Normal	11	5	Fisher's	
	Disturbed	3	1	Test	NS

Relational Analysis

The hypotheses for this analysis are identical to those in the Position analysis. As there, the I hypotheses deal with the normal sample, whereas those under II are concerned with the normal vs. disturbed samples.

Hypothesis I.

The plot of the four quadrants by sex and grade (Figure 4) shows that there are differences by age and quadrant. Small frequencies in quadrants 2 and 4 led to grouping quadrants for the chi square (Table 9), where both boys and girls attained significance.
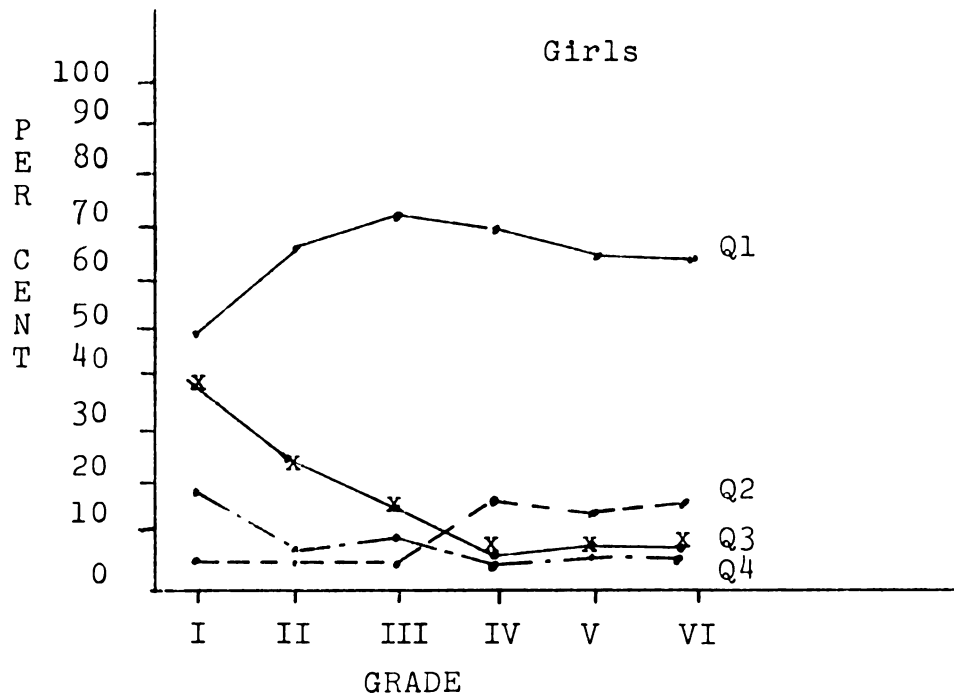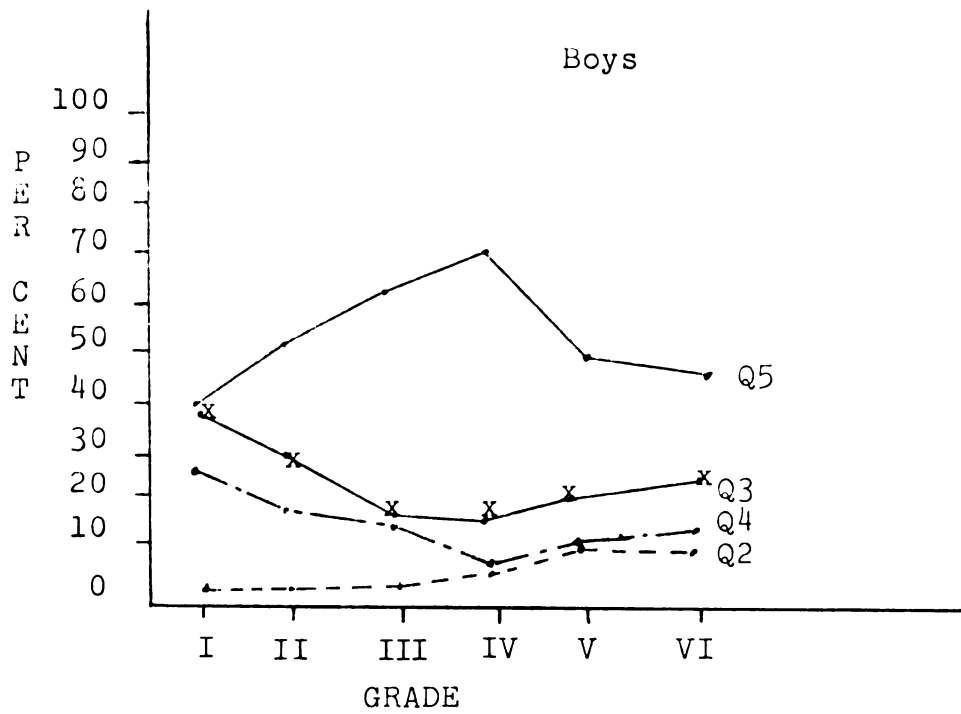
Figure 4.   Per cent of boys and girls in quadrants by
            grade: Relational analysis.

TABLE 9.--Relational Analysis of Family Drawings, Grades
I-VI: High vs. Low Growth.

Sex	Growth	Grade						χ^2	p
		I	II	III	IV	V	VI		
Boys	High	19	19	26	25	15	21	16.05	.02
	Low	31	16	12	7	8	14		
Girls	High	23	28	30	35	31	38	26.67	.01
	Low	23	11	9	3	6	6		

Hypothesis IA

As mentioned above, quadrant 3 contains dispropor-
tionately high numbers of the younger children, however,
Table 10 reveals that the younger children (Grades I-III)
cluster significantly in quadrant 1, with the effect
being greatest for girls.

TABLE 10.--Relational Analysis of Family Drawings in Grades
I-III: Quadrant 1 vs. Quadrants 2, 3 and 4.

Sex	Quadrant	O	E		χ^2	p
Boys	1	63	30.75	(25%)	16.83	.001
	2,3,4	60	92.25	(75%)		
Girls	1	81	31	(25%)	39.13	.001
	2,3,4	43	93	(75%)		

Hypothesis IB

Figure 4 shows the trend for boys and girls in Grades IV-VI to decrease in frequency in quadrant 1 and to increase in quadrant 2. The chi squares in Table 11 are significant for both sexes.

TABLE 11.--Relational Analysis of Family Drawings: Younger
vs. Older, Quadrant 1 vs. Quadrant 2.

Sex	Quadrant	Younger	Older	χ^2	p
Boys	1	63	52	5.70	.02
	2	1	9		
Girls	1	81	84	15.53	.001
	2	0	20		

Hypothesis IIA

Figure 5 shows the percent of disturbed and normal drawings sorted into the High Growth column of the Matrix, with the normals predominating on the High Growth side, (and the converse being the predominance of disturbed on the Low Growth side).

Although chi squares for the sex by class variables all reach significance (see Appendix G, Table 30), that for the black children does not. The problem is not with the sorting of the disturbed drawings as much as with the normals; that is, roughly the same number of normal drawings were sorted to the right column as to the left.

This suggests that the Relational sorting technique either does not discriminate black normals, or it turns up something in these drawings that is akin to the drawings of disturbed children. An alternative is that more black "normals" have incipient emotional disturbances than their white peers.
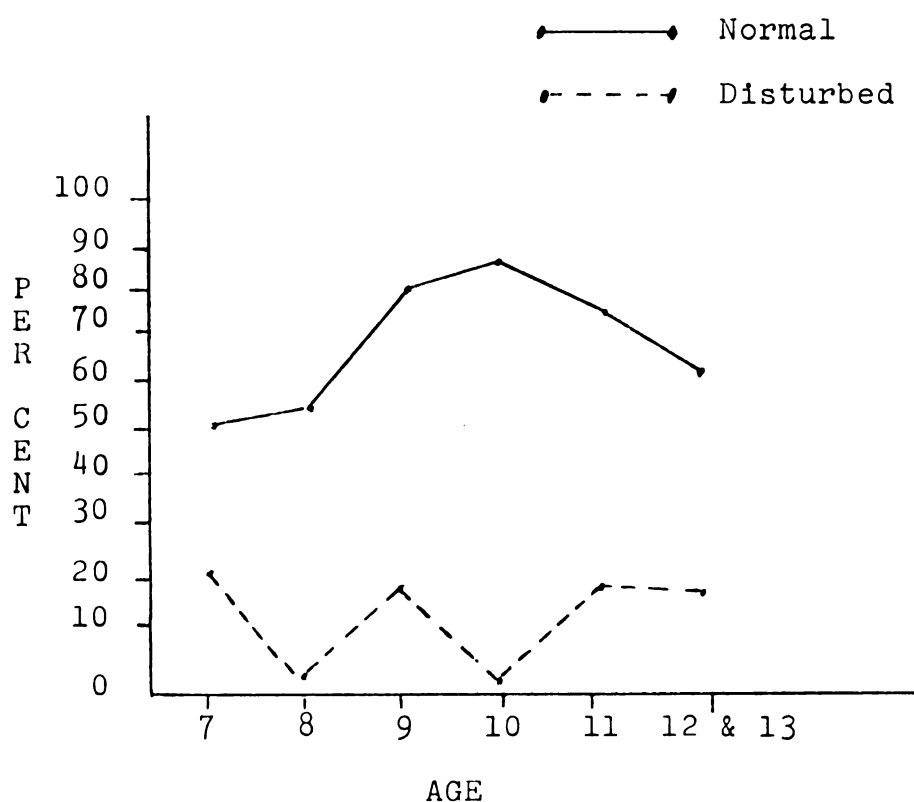
Figure 5. Age and per cent normal and distrubed, High Growth column of Matrix: Relational analysis.

It should be noted that lower class boys show a reversal, in that normals predominate over disturbed in the Low Growth half of the Matrix. This is identical to the effect found in the Position analysis.

Table 12 shows support of the hypothesis at all age levels except the youngest. As in the Position analysis the younger normal children tend toward placement on the Low Growth half of the Matrix, (χ^2 of 5.69 for boys, 12.69 for girls, see Appendix G, Table 31).

TABLE 12.--Relational Analysis of Family Drawings and Age: High vs. Low Growth.

Age	Growth	Normal	Disturbed	χ^2	p
6 & 7	High	58	2	Fisher's	
	Low	58	7	Test	NS
8 & 9	High	103	3	25.52	.001
	Low	49	22		
10 & 11	High	116	3	64.16	.001
	Low	16	23		
12 & 13	High	33	5	12.16	.001
	Low	16	9		

Hypothesis IIB

The hypothesized trends of movement from the High Group Identity to the Low Group Identity rows with increasing age are seen in Figure 6 for both normal and disturbed children's drawings. However, the only chi squares that

reach significance (see Appendix G, Table 32) is that

for the normal middle class girls; (Fisher's Exact Test

yielded a probability of .06 for the normal middle class

boys).
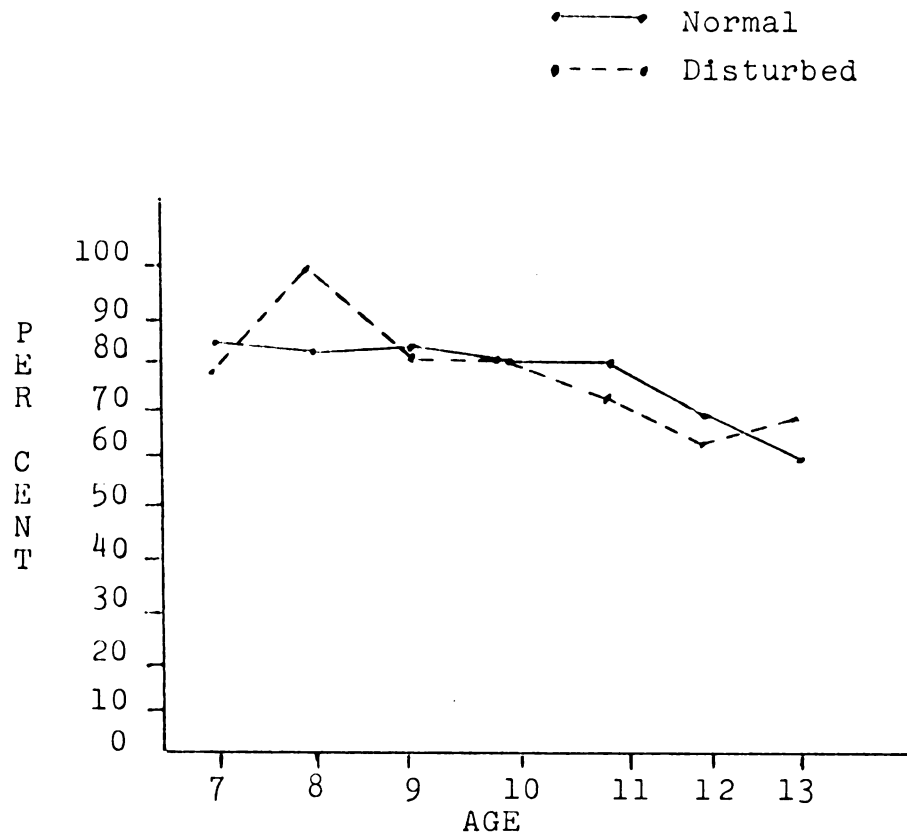
●——● Normal

●－－● Disturbed

Figure 6. Per cent in High Group Identity row, normal
and disturbed: Relational analysis.

Table 13 shows that the age breakdown for normal boys is not significant, although normal girls reach the .05 level, with the major effect at age 12 and 13. (The disturbed sample could not be assessed by age level because of small frequencies).

It should be noted from Table 13, that although the boys show much the same pattern as the girls at the 12 and 13 year level, the results at other ages tend to obscure this effect.

TABLE 13.--Relational Analysis of Normal Family Drawings and Age: High vs. Low Family Group Identity.

| Sex | Group Identity | Age | | | | χ^2 | p |
		6&7	8&9	10&11	12&13		
Boys	High	40	58	49	18	1.58	NS
	Low	11	12	13	7		
Girls	High	58	68	65	16	8.06	.05
	Low	7	9	13	8		

Hypothesis IIC

Figure 2 and Table 14 support the hypothesis that the older disturbed children's drawings will tend to remain in the Low Growth column of the Scoring Matrix. Although the black variable does not reach significance, it does not show a reversal of the hypothesis.

TABLE 14.--Relational Analysis of Family Drawings, ages
10-14: Normal vs. Disturbed, High vs. Low
Growth.

| | | Growth | | | |
| | | High | Low | χ^2 | p |
Factor	Adjustment				
Overall	Normal	149	39	67.32	.001
	Disturbed	8	42		
MC Boys	Normal	34	8	17.54	.001
	Disturbed	2	12		
MC Girls	Normal	40	5	Fisher's	
	Disturbed	0	2	Test	.02
LC Boys	Normal	26	19	9.68	.01
	Disturbed	5	23		
LC Girls	Normal	49	7	Fisher's	
	Disturbed	1	5	Test	.001
Blacks	Normal	12	5	Fisher's	
	Disturbed	2	2	Test	NS

Age trends applicable to this hypothesis may be seen
in Table 5. Here it is seen that from age 8 on, the dis-
turbed show up more in the Low Growth column, and peak
at age 10 and 11, proportionate to normal children's
drawings.

Additional Findings

Following are some general and specific findings
derived from the results of the two sorts. For the Posi-
tion sort, there is a general look at the distribution
of the variables in the Scoring Matrix, and a closer look

at the eight possible positions of the "me" in the family group. The latter will have some theoretical implications for the factors of identity and growth. For the Relational sort, the Matrix distribution of the variables will be considered. Finally, the Position and Relational sorts will be compared in terms of percent agreement of quadrant placement for individual drawings, and any similarities in outcome of the sorts.

Position Sort

In looking at the High vs. Low Growth Columns, it can be seen that the middle class are more on the High Growth side of the Matrix ($\chi^2 = 9.56$, Appendix H, Table 33). The blacks, who are all lower class, follow the same pattern.

The drawings of normal children are not equally distributed over the four quadrants. Most fall into quadrants 1 and 2, with relatively few in 3 and 4 (Appendix H, Table 34).

Boys and girls are also distributed differentially, with more boys in quadrant 1, and more girls in quadrant 2 (see Table 15). Grades I-IV account for these differences (see Appendix H, Table 35).

TABLE 15.--Family Drawings in Each Quadrant: Position
Analysis of Normal Boys and Girls.

Quadrant	Boy	Girl	χ^2	p[a]
1 2,3,4	87 63	63 180	10.78	.02
2 1,3,4	67 112	146 131	9.59	.02
3 1,2,4	35 32	178 211	.72	NS
4 1,2,3	24 36	189 207	.96	NS

[a]Two-tail test

In comparing the distribution of normal vs. dis-
turbed children's drawings, quadrant 2 approaches
significance with a greater proportion of normals, as
does quadrant 4 with more disturbed (see Appendix H,
Table 36). Quadrant 3 is found to contain proportion-
ately more disturbed girls as compared to boys, (χ^2 =
4.48, see Appendix H, Table 36).

Each quadrant in the Position sort is made up of
two of the eight possible placements of the "me" in the
family scene. The most predominant position was the "me"
drawn next to one of the parents, accounting for 58 per
cent of the boys' drawings, and 56 per cent of the
girls'. Of the boys, 38 per cent were next to the mother,
20 per cent next to the father. The girls had 35 per cent

next to the mother, 21 per cent next to the father.
Except for the last, these frequencies are above
chance expectation, (respective chi squares of 34.32,
8.03 and 32.68, Appendix H, Table 37). Boys outnumber
girls in placement next to the opposite-sex parent
(x^2 = 15.26), whereas girls outnumber boys next to
like-sex parent (x^2 = 16.65). These differences
(see Appendix H, Table 38) simply indicate that both
boys and girls tend to draw the "me" next to the
mother rather than the father.

Figure 7 shows that boys start out in the
lower grades next to the mother, but grade V brings
a reversal, with the placement next to the father
coming to the fore. The girls start out next to the
mother, reverse at grade V, but return to the same
pattern in Grade VI.
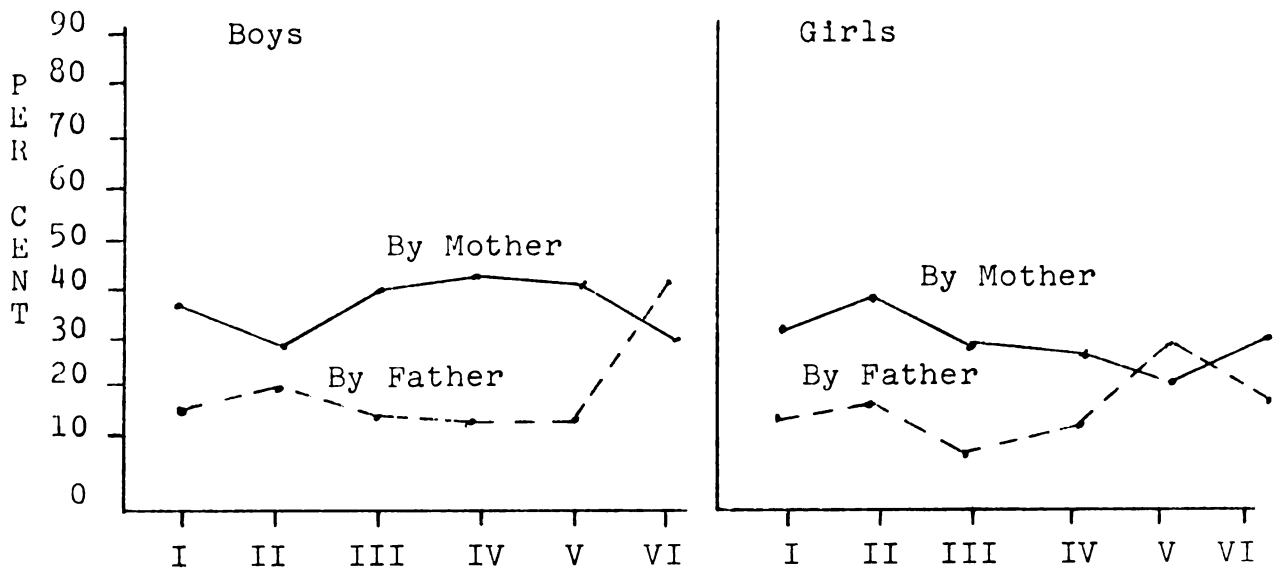
Figure 7. Per cent of normal boys and girls drawn next
to each parent in grades I-VI.

An interesting social class effect is shown in
Table 16. The lower class show a nearly significant
trend in fewer placements next to mother in grade I.
When placement next to either parent is analyzed, the
effect becomes significant. This suggests less close-
ness between the lower class children and their parents
at younger ages.

TABLE 16.--Family Drawings in Grade I with "me" Next to
Parents: Middle vs. Lower Class.

"Me" placement	MC	LC	χ^2	p^a
Next to mother Others	25 26	11 34	5.16	NS
Next to parents Others	36 15	17 28	9.12	.02

^{a}Two-tail test

In comparing normal with disturbed on the "me"
placement, normals are significantly higher on Indepen-
dence (χ^2 = 9.11), the disturbed on Isolated and Oppo-
sitional (χ^2 of 14.65 and Fisher p = .0005, see Appendix
H, Table 39). When the significant placements are broken
down by sex, the same relationships hold, as given in
Table 17.

TABLE 17.--Family Drawings and Placement of "me": Normal vs. Disturbed Boys and Girls.

Sex	"Me" placement	Normal	Disturbed	χ^2	p[a]
Boys	Independent	24	0	6.76	.01
	Others	189	66		
Girls	Independent	27	0	Fisher's	
	Others	216	18	Test	.001
Boys	Isolated	7	7	Fisher's	
	Others	206	59	Test	.001
Girls	Isolated	15	3	Fisher's	
	Others	239	15	Test	.001

[a]Two-tail test

Relational Analysis

In the Growth columns in the Relational sort results, both girls and the middle class tend toward High Growth, whereas boys and the lower class tend toward Low Growth, (χ^2 of 15.08 and 28.91, see Appendix I, Table 40). The social class result is in agreement with that found in the Position analysis.

Regarding the distribution of the variables by quadrant, it was found that: (1) Girls dominate in quadrant 1, boys in quadrant 4; (2) middle class predominates in quadrant 1, lower class in quadrants 3 and 4; and (3) blacks are dominant in quadrant 4, (see Appendix I, Tables 41, 42 and 43).

A noteworthy trend for the black children is for
the normals to be low in quadrant 3 (Overdependence), but
significantly high in the Counterdependent quadrant 4,
(χ^2 of 6.42, see Appendix I, Table 44).

When comparing the normal and disturbed groups
across the sex, class and race variables in each quadrant,
an interesting outcome is that in quadrant 4 there are no
significant differences between normal and disturbed for
any of the variables, whereas there are differences in
the other two quadrants, (Appendix I, Table 44). There
is the suggestion that "normal" drawings assigned to this
quadrant are perhaps more like their disturbed counter-
parts than in any other quadrant. For children, isolation
seems to be the most drastic technique for interpersonal
adaptation.

Comparing the Position and Relational Sorts

The analysis of the two sorting techniques will be
wound up with a comparison between them. Agreements
between Position and Relational results would offer fur-
ther support of the validity of the techniques as well
as their theoretical underpinning.

The per cent agreement between the two sorts by
quadrant is as follows:

42%	27%
16%	36%

The overall agreement is 33 per cent. Chance agreement would be 25 per cent. It should be noted, however, that with a few adjustments to the Position analysis (see Discussion), the agreement is raised to 53 per cent.

Other agreements between the Position and Relational analyses which relate to the variables of sex, social class and race are: the tendency for normal, middle class toward placement in the High Growth column, and lower class in the Low Growth column of the Scoring Matrix--particularly lower class boys; the tendency for girls to predominate in quadrant 2; and the "black factor" of black loading in quadrant 4 (Counderdependence).

An important similarity is the tendency for the youngest normal children's drawings to show up in the Low Growth column of the Matrix--particularly in quadrant 3, Overdependence. Apparently both sorting techniques are sensitive to something in young children's drawings which makes them similar to the disturbed drawings, but which cannot be related to the Growth dimension as it is defined in the Scoring Matrix. But more on this in the Discussion.

CHAPTER V

DISCUSSION

Position Analysis--The Hypotheses

Sorting by Position assumes that the placement of
the "me" in the drawing of a family can be a highly mean-
ingful communication about a child's identity within his
family group identity. There is the second assumption
that placing the "me" next to someone suggests an
approach vector directed at that person, which exists
behaviorally or in fantasy. The approach vector can be
positive, in terms of growth needs like caring, admira-
tion, and positive identification; or negative as in
overdependence, fears, identification with the aggressor
and anger; or ambivalent with positive and negative
mixtures of feelings. Finally, there may be vectors
of avoidance toward others expressed by isolation of the
"me." With these things in mind, results in the Posi-
tion analysis which failed to support the hypotheses are
explainable in terms of two gross errors in the assump-
tions underlying the scoring system. The first is that
the Opposite and Like-sex parents mean the same thing to
both boys and girls, (i.e.; that boy next to mother is

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analagous to girl next to father, and vice versa). The
other is that the "me" placement means the same thing
at every age or grade level. The effect of these assump-
tions will be brought out in considering the non-support
given some of the hypotheses.

The Hypotheses (IA and IB) associating younger
normals with quadrant 1 (dependence) and older normals
with quadrant 2 (independence) were supported for boys
but not for girls. The association of normals with the
High Growth and disturbed with the Low Growth columns
of the Scoring matrix (Hypothesis IIA) was supported for
all variables except the youngest, lower class and black
children. The hypothesized placement of younger children
in the High Group Identity row and older kids in the Low
Group Identity row of the Matrix was not found generally.
Finally, the IIC Hypothesis that placement of disturbed
drawings in the Low Growth column will not decrease with
increasing age was supported for all groups other than
the disturbed black children.

Regarding the apparent lack of association of
younger and older normal girls' drawings with dependence
and independence respectively, the problem appears to be
in the meaning of the "me" next to the like-sex parent.
Younger girls drawing "me" next to mother probably fits
with dependence rather than independence as was postu-
lated in the scoring system. Accordingly, if the

younger normal girl's drawings (grades I-III) are moved
from quadrant 2 (<u>independence</u>) to quadrant 1 (<u>dependence</u>),
then the I, IA and IB Hypotheses are all supported for
girls as well as boys.

The Hypothesis (IIA) predicting clustering of
disturbed drawings in the Low Growth column of the Matrix
was not supported for the lower class, black or youngest
groups. The major problem for lower class boys appears
to be with older boys who place the "me" next to mother.
These drawings were sorted as dependent, whereas older
boys next to mother undoubtedly should be considered
overdependent. If the age 10-14 boy's drawings are moved
from quadrant 1 (<u>dependence</u>) to quadrant 3 (<u>overdepen-
dence</u>), then the Hypothesis receives significant support
for the lower class boys--primarily because this change
would move eighteen disturbed drawings from the High to the
Low Growth column of the Matrix, (see change #2, dia-
gram p. 61). It had also been assumed that the "<u>me</u>"
<u>last</u>, <u>sibs</u> <u>next</u> <u>to</u> <u>parents</u> position indicates counter-
dependence. Although this may be true for boys, it
does not hold up for girls. Perhaps this position for
girls is one of a counterbalance to the parents in the
family, as in the "little mother" role, particularly for
the lower class. This placement of the "me" is found
in none of the disturbed girl's drawings, whereas there
are four disturbed boys (age 10 and over) so placed.

If the drawings of children ages 6-9 are moved from the counterdependent quadrant 4 to the dependent quadrant 1, Hypothesis IIA becomes significant for lower class girls, also, (see change #3, diagram, p. 61).

The fourth questionable Matrix assignment in the Position scoring system is that of the "me" in sibship for younger children. The bulk of the normal children's drawings in the Low Growth quadrant 3 (overdependence) are accounted for by this placement. If these drawings for ages 6-9 are moved from quadrant 3 to quadrant 1 (dependence), then Hypothesis IIA becomes significant for normal black children, although there is still the overloading of the black normals in the counterdependent quadrant 4, and also for the youngest age group, (see change #4, diagram, p. 61).

The Hypothesis (IIB) associating younger and older children respectively with High and Low Family Group Identity would receive significant support as a result of the changes outlined above.

The last Hypothesis (IIC) which indicates that increasing age of the disturbed should not reverse their tendency to cluster on the Low Growth side of the Matrix was not supported for black children. This is largely due to the dominance of quadrant 4 (counterdependence) by black children, and especially younger ones. This suggests a factor of counterdependence and/or isolation

for younger normal black children which will be elaborated
in the Discussion of the Relational Sort analysis.

The original Position Sort system and the modifica-
tions outlined above as they pertain to Hypotheses IIA,
IIB and IIC are given in the following diagram. The
altered placements are numbered to clarify the changes.

Position Sort Scoring

Dependence   Overdependence

"Me" next opp-sex parent* (2)   "Me" between parents
"Me" 1st, sibs by parents   "Me" in sibship* (4)

Independence   Counterdependence

"Me" next like-sex parent* (1)   "Me" last, sibs by
                                         parents* (3)
"Me" independent   "Me" isolated
                                    "Me" oppositional

Modified Position Sort Scoring

Dependence   Overdependence

"Me" next mother* (1 & 2)   "Me" between parents
    (ages 6-9)   "Me" last, sibs/parents*
"Me" in sibship* (4)   (3) (ages 6-9)
    (ages 6-9)   "Me" in sibship* (4)
"Me" 1st, sibs by parents   (ages 10-14)
                                    Boy "me" next mother* (2)
                                        (ages 10-14)

Independence   Counterdependence

Boy "me" next father* (1)   "Me" last, sibs/parents*
Girl "me" next mother* (1)   (3) (ages 10-14)
    (ages 10-14)   "Me" isolated
"Me" independent   "Me" oppositional

*Modified placements

Even with the above changes, the middle class
still tend to cluster in the High Growth, the lower class
in the Low Growth column of the Scoring Matrix. This
tendency for the lower class to be less growth inclined
is also manifest in the disturbed sample, which is 62
per cent lower class. This is in keeping with sociolo-
gical studies which have demonstrated a positive rela-
tionship between class level and mental health generally,
and a correlation between lower class membership and
schizophrenia in particular, (Gruenberg, 1961). Of
special note is that with the proposed modifications
to the Position sort scoring system, not only are all
the hypotheses supported, but the disturbed sample
literally is reversed in terms of the frequencies falling
in the High Growth vs. Low Growth columns of the Matrix.
The result is that the power of the Position sort to
discriminate disturbed drawings is greatly increased.
In addition, the agreement (in %) between the Position
and Relational sorts rises from 34 per cent to 53 per
cent. The proposed modifications appear to be valid, in
the sense that they have positive influence on several
disparate factors. However, because of the ex post
facto nature of the modifications, a new sample of draw-
ings would have to be analyzed to test their validity.

Position Analysis--"Me" Placement

The most significant additional findings in the Position analysis concern the "me" placement in the family group. The predominant placement is next to mother, followed by "me" next to father. Table 18 gives these placements for boys and girls, normal and disturbed.

TABLE 18.--Per cent Placement of "Me" Next to Mother and Father, Normal and Disturbed Boys and Girls.

Group	Next Mother	Next Father
Normal boys	38%	20%
Disturbed boys	41%	24%
Normal girls	35%	20%
Disturbed girls	22%	17%

Of note is that 67 per cent of the disturbed boys with "me" next to mother are age ten and older, as compared to 43 per cent of normal boys so placed. These older disturbed boys account for the eighteen disturbed drawings shifted from the High to Low Growth column of the Matrix as discussed previously in the Position sort modifications. Although Table 18 shows no large differences between normal and disturbed children in "me" placement next to parents, there are qualitative differences in these drawings which will be discussed later, (see page 65).

Figure 7 (p. 52) shows the normal developmental trend in placements next to mother or father, and indicates that boys start out predominantly next to the mother in the lower grades, with placement next to the father taking over between grades V and VI. This is suggestive of one of the roles a father plays in helping free his son from dependency ties with the mother, enabling him to form an adult relationship with his father. It should be noted that the older disturbed boys (ages 13 and 14) did not have any "me" placements next to father, and this at a critical period for them in terms of adult identity growth.

For girls, the pattern in Figure 7 is one of early positioning by the mother which decreases with age. Placement by the father gradually comes to the fore, predominates at grade V, but then gives way to the mother in grade VI. Although this particular configuration could be due to chance, there is also a logical explanation in terms of the father's role in helping his daughter move away from the old, more dependent relationship with the mother in order that a new, more independent and adult one might flourish. Again, for the disturbed girls, there is no placement next to the mother at age 10 and above, suggesting a disruption of the mother-daughter relationship for some of these children.

For the disturbed boys and girls who drew the "me"
next to one of the parents, there are signs in the draw-
ings of a highly ambivalent parent-child relationship.
Of the sixteen disturbed boys who drew the "me" next to
the father, nine represented the "me" as big or bigger
in body and/or head than the father. Of the remaining
seven, five drew the father "gimped" or "goofy" in
appearance (see below), while one showed a tiny boy over-
whelmed by a giant of a father. These characteristics
were extremely rare in normal drawings. Following are
reproductions of 9 year-old boys drawings of father.
They are normal, "goofy" and "gimped," respectively. One
of the interesting things about these drawings is the eyes.
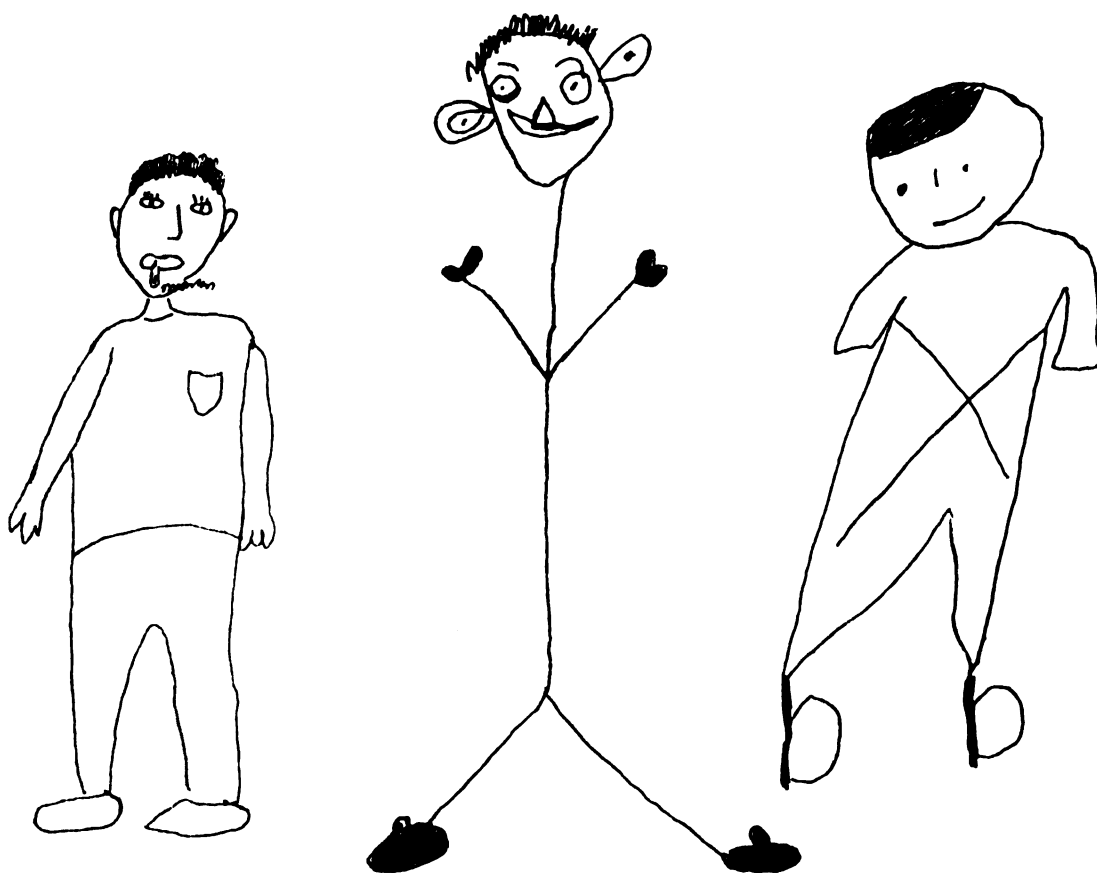
Figure 8.   Examples of normal, "goofy" and "gimped"
             fathers drawn by 9-year old boys.

Of the four disturbed girl's drawings with "me" next
to mother, two suggested encroachment and one distancing.
There was one head bigger than mother's, one overwhelm-
ing mother, and two "goofy" looking mothers. All three
disturbed girls next to the father portrayed the "me" as
large as he, and the 12-year old was also heavily made
up and holding his hand. These findings suggest that
for these disturbed children, there is an approach vec-
tor directed at a parent, but with avoidant vectors
which create disruptive ambivalence. The major negative
factors for boys appear to be father's impotence (physi-
cally, mentally or emotionally), and mother's infantiliz-
ing (from the large number of older disturbed boys
placing the "me" by mother). For girls it might be
father's impotence and mother's overbearingness or
domination--but without real emotional closeness. This
suggests problems with fathers who have trouble feeling
their own masculine potency, and mothers their femininity
and maternalness.

In most of the disturbed children's drawings with
the "me" next to one of the parents, then, there appears
to be strong ambivalence which causes problems with
closeness, caring and respect. This is the best single
indicator of emotional disturbance in the family draw-
ings. However, it is hard to say if the problem is
really one of impotence or overwhelmingness, or whether

it goes beyond this into a chronic lack of deep emotional
contact in the relationship. If this is so, then with
the advent of early adolescence and the confrontation
with adulthood, the child may feel the last chance for
growth is slipping away--and the parental shortcoming
most difficult to restitute also becomes the one hardest
to forgive.

Relational Sort Analysis

For the Relational analysis, all the Hypotheses but
IIB (younger vs. older children will tend toward High vs.
Low Group Identity, respectively) were supported overall,
but not in all demographic groupings. These were the
youngest and the black children under Hypothesis IIA
(disturbed will cluster in the Low Growth column of the
Matrix), and the black children under Hypothesis IIC
(disturbed clustering in the Low Growth column will not
decrease with increased age).

In considering the lack of support for Hypothesis
IIA and the black group, Table 14 (p. 49) reveals that
of a total of eight disturbed black children, two were
placed in the High Growth column of the Matrix, whereas
six were sorted into the Low Growth side, which is in
the predicted direction. However, this difference was
not large enough to overcome the effect of the 50/50 split
of the normal black children between these two columns.
Most of the normal effect is due to the disproportionately

high number of black drawings being sorted into the
counterdependent quadrant; twelve out of a total black
N of 40. This quadrant claimed 30 per cent of the
normal black samples as compared to 16 per cent of the
normal lower class sample. As was found in the Position
sort, the normal black children tend toward counterde-
pendence and isolation. The issue here seems to be
whether this kind of isolation in the family group is
really a condition of low growth for these black child-
ren, or if it represents a kind of interpersonal adapta-
tion which allows for growth. The fact that the dis-
turbed black children tend more toward overdependence (63%)
rather than counterdependence (13%) supports the latter
idea. The need for the black child (especially the boy)
to break away from the mother, and often without the help
of a father, may be associated with this counterdependent
loading.

As in the Position sort, an unusually high number
of the youngest normals appear as overdependent (quadrant
3). Chi-squares for 6, 7 and 8 year-olds were 6.81,
5.58 and 5.97 respectively. Of the total normal sample,
40 per cent of the 6 year-olds were sorted into this
quadrant. In sorting these normal drawings, it was felt
that they showed the same general characteristics as the
other drawings in this quadrant; that is, the "group
gimp" or "mashy" quality of the people in the drawing.

There also seemed to be a good deal of autistic embell-
ishment, which led to applying the term "autistic license"
to the normal 6 year-old drawing style. It would appear
that the High-Low Growth dimensions of the Relational
scoring system cannot be applied to younger children so
generally. This is due to their far greater tendency to
represent the overdependent, borderline type of group
encroachment, or "mash" which gives the feeling of little
breathing room in the drawings--and which is so charac-
teristic of many older, disturbed children's drawings.

In looking at these drawings of the youngest nor-
mals, it is difficult to tell if there are problems of
incipient emotional disturbance, or if many children at
this age are still caught in the web of overdependence.
Perhaps the factors of dependence vs. overdependence as
used in the scoring systems do not have real meaning at
these earlier ages. Perhaps all of these things apply.
It is also interesting to note that many drawings of
older, disturbed children were so highly similar to these
younger, normal children, who are perhaps emotionally
"younger" than their age peers. This resemblance suggests
that some of the disturbed children may be functioning at
the level of chronologically younger children who may
themselves be emotionally immature.

The lack of support for Hypothesis IIB (younger
children should cluster in the High Group Identity row,

older ones in the Low Group Identity row) for boys stems primarily from too many older disturbed placed in <u>dependence</u>, and too many younger normals in <u>counterdependence</u> quadrants. The older disturbed drawings in <u>dependent</u> quadrant 1 actually resembled to a striking degree the younger normals placed there. This raises the question of whether these disturbed children may be extremely immature rather than manifesting pathological symptom formation. They would perhaps be more in line with the immature character disorder as opposed to the neurotic or psychotic immaturity-plus-symptomatology. In quadrant 4 (<u>counterdependence</u>) the normals show a reversal, with the younger outnumbering the older children three to one. This is hard to rationalize in terms other than those applied to the black children's drawings in quadrant 4 with the "black factor"; that of counterdependence and isolation. Perhaps for younger children who feel overwhelmed by the family's demands on their autonomy isolation can be a technique for interpersonal adaptation and survival which is an alternative to emotional disturbance.

For the girls, the lack of support for Hypothesis IIB is with the disturbed in <u>overdependence</u> and the normals in the <u>counterdependence</u> quadrants. Disturbed girls tend to cluster in overdependence, but do not differ when comparing younger with older. The fact that girls play a more passive and dependent role in the culture when

older as well as younger may have something to do with the lack of age differentiation for the overdependence in the disturbed. The same effect for the normal girls as for the normal boys is seen in the <u>counterdependent</u> quadrant 4, which offers support for the notion that counterdependence may be a way of achieving pseudoindependence or freedom from overdependency.

Hypothesis IIC (placement of disturbed drawings in the Low Growth column will not decrease with increasing age) was supported for all groups other than the black children. There were only four older disturbed black children in the total sample, and they did not show a reversal of the hypothesized direction, so at best the results are equivocal. More generally, however, there seems to be a problem with the black children in this sorting technique which suggests the possibility of a family/individual identity picture differing from whites, with resulting differences in the expressions of dependence, overdependence and counterdependence for them. As mentioned before, the black child probably has difficulty with his mother's protective and controlling ties on him, but there may also be a problem in how the black person must adapt to his environment generally. In striving for autonomy and "self," perhaps he tends to remain "hidden" and personally encapsulated, not only from the dominant culture but also within his family and subculture.

Counterdependent or isolation techniques would then become
a life style.

In looking at general effects of the sex and class
variables among normals for the Relational sort, Appendix
I, Table 40 shows that girls and middle class predominate
on the High Growth side of the Matrix, boys and lower
class on the Low Growth side. Breaking this down by quad-
rant, there is the suggestion that dependence in the
family is most common among girls, especially middle class
girls, whereas independence is more characteristic of the
middle class generally. Overdependence is more a lower
class characteristic, whereas counterdependence is used
more by boys; especially lower class and black boys. The
predominance of middle class in the High Growth column and
lower class in the Low Growth column is in agreement with
the Position sort, and as mentioned before, fits with
other data. The reason for girls predominating in the
High Growth column comes largely out of their high fre-
quency in quadrant 1, but is also suggestive of important
factors other than growth which are involved in the
Relational sorting technique. One might be that girls
are trained to be dependent, whereas boys are pushed
more towards independence--which then leads to more
counterdependent behavior in the family in lieu of true
independence. However, this counterdependence in the
family group would not of necessity be associated with
Low Growth--except if it generalized to extra-familial

relationships. It would have been interesting to have drawings of a "group of children" to look into this kind of generalization. Perhaps the disturbed children in quadrant 4 (counterdependence) would also tend to show isolation in their peer relationships, whereas the normals in that quadrant would not.

Another interesting effect in quadrant 4 is seen in Appendix I, Table 44, where there are no significant differences between normal and disturbed for any of the variables, while almost all the other normal/disturbed differentials were significant in the other two quadrants. Of further interest is that inter-judge agreement on the normals sorted into quadrant 4 was the lowest of any of the quadrants (55%), whereas it was highest for the disturbed (70%). Perhaps the normals in this quadrant consist of two groups; those who are relatively normal, and those who have emotional problems that have not been identified because of the child's hiddenness.

The argument could be raised that quadrants 3 and 4 are really not much different in content, anyway, because the judges might have tended to sort "sick-looking" drawings into the Low Growth half of the Matrix without really discriminating between overdependence and counterdependence. If this were the case, it would be clear that the frequencies in quadrants 3 and 4 would be roughly equal, as would the interjudge agreement. Table 19 indicates this is not the case.

TABLE 19.--Observed and Expected (50%) Frequencies of
Family Drawings, Normal and Disturbed,
quadrants 3 and 4.

Adjustment	Quadrant	O	E	χ^2	df	p
Overall	3	146	108.5	12.72	1	.01
	4	71	108.5			
Normal	3	95	73	6.18	1	.05
	4	51	73			
Disturbed	3	51	35.5	6.24	1	.05
	4	30	35.5			

The interjudge agreement for quadrant 3 was 63 per
cent for the normals, 65 per cent for the disturbed; for
quadrant 4, 55 per cent for the normals and 70 per cent
for the disturbed. These data support the idea that
there was a discriminating principle in the sorting of
drawings into these two quadrants other than that they
were just "sick-looking."

Of further interest is the fact that of the 112
drawings that could not be scored, 67 omitted the "me,"
which would qualify them for placement in quadrant 4
above any other. Of these 67 drawings, 16 were done by
disturbed children. However, in taking the 17 drawings
of children age 12 and over, we find 12 of the 16 dis-
turbed and only 5 of the 55 normals in that age group
(χ^2 = 34.10). Not only does this make the omission of
the "me" the best single indicator of disturbance in

children age 12 and over, it also is suggestive of some-
thing about isolation or counterdependence in the family
group in general, as was suggested earlier. In Table 19
(p. 23) it is seen that normal boys had 23 younger and
11 older members in quadrant 4, whereas disturbed boys
had 3 younger and 14 older. Apparently the counterdepen-
dent or isolation technique changes meaning with age,
for boys. For some younger boys, it is perhaps the only
way they can function in the family group and retain some
vestiges of "selfness." However, for older boys it seems
to be more definitely associated with emotional disturb-
ance rather than positive adaptation. Perhaps what
began as a way of adjustment, with time and increasing
age, became the road to increasing difference and "out of
jointness" with others--with ultimate emotional diffi-
culties.

Uses for the Family Drawing and the Sorting Techniques

The results of this study suggest research, clinical
and screening uses for the sorting techniques.

Research uses would include looking at children
developmentally, and in terms of the quest for individual
identity, the struggle against dependency, the roles of
parents and siblings, and the family dynamics generally.
Perhaps an increased understanding of family factors in
emotional disturbance might also be gained.

As a clinical tool, the family drawing reveals things about the individual within the family group that other tests may not, such as the child's negative feelings about himself and family members which are often painfully clear. Dimensions such as overcloseness or isolation can also be obvious.

The final consideration is for using the DAF as a device for rapid screening of large groups of children to discover those who are handicapped in terms of their emotional growth. For this purpose, the Relational sort is impractical, as it is difficult to learn, and time-consuming to use. On the other hand, the Position sort is relatively objective, easy to learn, and takes little time to use. With tne previously outlined objective modifications, and applying the qualitative indicators to drawings with the "me" next to a parent, the technique shows promise as a screening device.

APPENDICES

APPENDIX A

RELATIONAL SORT SCORING SYSTEM

Relational Sort Scoring System

Quadrant 1

Real, non-demeaned people:
   Attempt to draw real peo-
   ple in real scene--body,
   features, alive posture.

Positive embellishments:
   Additions to people are
   enhancing of appearance.

Fair to good body proportion:
   Overall size, proportions
   of head, limbs, etc.

Closeness w/o encroachment:
   Perhaps affectional type
   contact, as of hands.

Fair to good sex differen-
tiation.

Few omissions of major body
parts.

Low to medium stereotopy:
   May be some, but still see
   some differences in family
   members (hair, expression).

Quadrant 2

Real, non-demeaned people,
positive features:
   As above.

Good to excellent propor-
tions.

No major omissions.

Low stereotopy.

Optimum distance between
family members, may be
doing own "thing."

Quadrant 3

Unreal, demeaned people:
   Perhaps clown-like, mon-
   sters, robots; unreal
   features, expression,
   frozen position.

Negative embellishments:
   Additions not enhancing.

Poor proportions:
   Either overall size or
   body parts.

Encroachment, overcloseness:
   Collisions, transparencies
   between family members.

Poor sex differentiation
   among family members.

Major omissions of body
parts.

High stereotopy among family
members:
   Tendency to look similar
   in face, hair, posture.

Quadrant 4

Unreal, demeaned people,
negative features:
   As above.

Poor proportions of body
parts.

Major omissions in "me."

High stereotopy of group,
not "me."

Isolation of "me":
   either by distance,
   barriers, lower differ-
   entiation, smallness.

APPENDIX B

INSTRUCTIONS TO TEACHERS

    1. Administering DAF to regular classrooms

    2. Administering DAF to disturbed rooms

INSTRUCTIONS FOR ADMINISTERING THE FAMILY DRAWING TEST

A. Purpose

Secure pencil drawings of a family from 600 students, grades 1-6, and from special classrooms for the maladjusted, in order to provide norms for the test.

B. Materials

1. Paper (will be provided)

2. Pencil

3. Time; 15 minutes

C. Directions

1. Distribute paper.

2. Have students take out pencil only; (no crayons).

3. Have students place name, age and grade in space provided on paper.

4. Ask children to draw a picture of a family; (Do not say "your family.")

5. Let children know they will have about 10-15 minutes to complete drawing.

6. Questions about how or what to draw should be answered by such things as, "That's up to you", or "However you want to do it." (#4 may be repeated, however

7. After 10 minutes, let students know that they will have only a few more minutes.

8. After 14 minutes, have students stop.

9. Ask children to place an "F" over the father, an "M" over the mother, and "Me" over the person that most reminds the child of himself.

10. Collect papers.

11. Place a red check mark in the upper right hand corner of papers of Black childre

12. Place a blue check in the upper right hand corner of papers of students you feel to be most improved in terms of their emotional growth.

13. Insert drawings in stamped, addressed envelopes provided, and place in mail.

D. Results

Results of this study will be available to any of the educators involved in the study.

APPENDIX C

COMPOSITION OF SAMPLE

TABLE 20.--Normal Sample: Boys and Girls by Age and Grade.

Grade	Boys	Girls	Both	Age	Boys	Girls	Both
I	51	46	97	6	17	19	36
II	36	39	75	7	35	46	81
III	36	39	75	8	48	38	86
IV	32	38	70	9	26	39	65
V	23	37	60	10	31	32	63
VI	35	44	79	11	31	45	76
				12	23	21	44
	213	243	456	13	2	3	5
					213	243	456

TABLE 21.--Emotionally Disturbed Sample: Boys-Girls, Age, Source.

Age	Disturbed Classes			Teacher Rated			Both		
	Boys	Girls	Both	Boys	Girls	Both	Boys	Girls	Both
7	2	2	4	4	1	5	6	3	9
8	4	2	6	2	2	4	6	4	10
9	4	1	5	8	2	10	12	3	15
10	4	1	5	5	1	6	9	2	11
11	4	2	6	8	0	8	12	2	14
12	5	2	7	6	1	7	11	3	14
13	4	1	5	4	7	4	8	1	9
14	2	0	2	0	0	0	2	0	2
	29	11	40	37	7	44	66	18	84

APPENDIX D

BREAKDOWN OF POSITION SORT

1. By Grade: Normal

2. By Age: Normal and Disturbed

TABLE 22.--Normal Position Sort: Grade and Sex.

Quadrant 1

Grade		By opp-sex parent			1st; sibs by pars.			Both positions		
		Boy	Girl	Both	Boy	Girl	Both	Boy	Girl	Both
I	#	19	9	28	2	2	4	21	11	32
	%	(38)	(20)	(29)	(4)	(4)	(4)	(42)	(24)	(33)
II	#	10	9	19	3	1	4	13	10	23
	%	(29)	(23)	(26)	(9)	(3)	(5)	(37)	(26)	(31)
III	#	16	4	20	1	2	3	17	6	23
	%	(42)	(10)	(26)	(3)	(5)	(4)	(45)	(15)	(30)
IV	#	14	7	21	0	0	0	14	7	21
	%	(44)	(18)	(30)	(0)	(0)	(0)	(44)	(18)	(30)
V	#	10	12	22	0	4	4	10	16	26
	%	(43)	(32)	(37)	(0)	(11)	(7)	(43)	(43)	(43)
VI	#	11	9	20	1	4	5	12	13	25
	%	(31)	(21)	(25)	(3)	(9)	(6)	(34)	(30)	(32)
Total	#	80	50	130	7	13	20	87	63	150
	%	(38)	(21)	(29)	(3)	(5)	(4)	(41)	(26)	(33)

Quadrant 2

Grade		By like-sex par.			Me Independent			Both positions		
		Boy	Girl	Both	Boy	Girl	Both	Boy	Girl	Both
I	#	8	17	25	0	1	1	8	18	26
	%	(16)	(37)	(26)	(0)	(2)	(1)	(16)	(39)	(27)
II	#	7	17	24	1	2	3	8	19	27
	%	(20)	(44)	(32)	(3)	(5)	(4)	(23)	(49)	(36)
III	#	6	13	19	4	6	10	10	19	29
	%	(16)	(33)	(25)	(11)	(15)	(13)	(26)	(48)	(38)
IV	#	4	12	16	5	7	12	9	19	28
	%	(13)	(32)	(23)	(16)	(18)	(17)	(29)	(50)	(40)
V	#	3	10	13	8	3	11	11	13	24
	%	(13)	(27)	(22)	(35)	(8)	(18)	(48)	(35)	(40)
VI	#	15	16	31	6	8	14	21	24	45
	%	(43)	(36)	(39)	(17)	(18)	(18)	(60)	(54)	(57)
Total	#	43	85	128	24	27	51	67	112	179
	%	(20)	(35)	(28)	(11)	(11)	(11)	(32)	(46)	(39)

TABLE 22.--Continued.

Quadrant 3

Grade	Me in sibship			Me between parents			Both positions		
	Boy	Girl	Both	Boy	Girl	Both	Boy	Girl	Both
I	# 8	9	17	4	2	6	12	11	23
	%(16)	(20)	(18)	(8)	(4)	(6)	(24)	(24)	(24)
II	# 6	2	8	2	0	2	8	2	10
	%(17)	(5)	(11)	(6)	(0)	(3)	(23)	(5)	(14)
III	# 4	7	11	3	1	4	7	8	15
	%(11)	(18)	(14)	(8)	(3)	(5)	(18)	(21)	(19)
IV	# 1	4	5	3	3	6	4	7	11
	%(3)	(11)	(7)	(9)	(8)	(9)	(12)	(19)	(16)
V	# 0	1	1	2	1	3	2	2	4
	%(0)	(3)	(2)	(9)	(3)	(5)	(9)	(6)	(7)
VI	# 1	0	1	1	2	3	2	2	4
	%(3)	(0)	(1)	(3)	(4)	(4)	(6)	(5)	(5)
Total	# 20	23	43	15	9	24	35	32	67
	%(9)	(9)	(10)	(7)	(4)	(5)	(16)	(13)	(15)

Quadrant 4

Grade	Last; sibs by par.			Me Isolated			Both positions		
	Boy	Girl	Both	Boy	Girl	Both	Boy	Girl	Both
I	# 6	5	11	3	1	4	9	6	15
	%(12)	(11)	(11)	(6)	(2)	(4)	(18)	(13)	(17)
II	# 3	8	11	3	0	3	6	8	14
	%(9)	(20)	(15)	(9)	(0)	(4)	(17)	(20)	(19)
III	# 3	5	8	1	1	2	4	6	10
	%(8)	(13)	(10)	(3)	(3)	(3)	(11)	(16)	(13)
IV	# 5	5	10	0	0	0	5	5	10
	%(16)	(13)	(14)	(0)	(0)	(0)	(16)	(13)	(14)
V	# 0	4	4	0	2	2	0	6	6
	%(0)	(11)	(7)	(0)	(5)	(3)	(0)	(16)	(10)
VI	# 0	5	5	0	0	0	0	5	5
	%(0)	(11)	(6)	(0)	(0)	(0)	(0)	(12)	(6)
Total	# 17	32	49	7	4	11	24	36	60
	%(8)	(13)	(11)	(3)	(2)	(2)	(11)	(15)	(13)

TABLE 23.--Normal Position Sort: Age and Sex.

Age		Boy	Girl	Both	Boy	Girl	Both
			Quadrant 1			Quadrant 3	
6	#	6	7	13	3	3	6
	%	(35)	(37)	(36)	(18)	(16)	(17)
7	#	18	10	28	7	8	15
	%	(51)	(22)	(35)	(21)	(17)	(19)
8	#	18	4	22	12	6	18
	%	(37)	(11)	(26)	(25)	(16)	(21)
9	#	10	11	21	4	8	12
	%	(37)	(28)	(32)	(15)	(20)	(18)
10	#	13	7	20	4	2	6
	%	(42)	(22)	(32)	(13)	(6)	(10)
11	#	13	11	24	2	4	6
	%	(42)	(24)	(32)	(6)	(9)	(7)
12 & 13	#	9	13	22	3	1	4
	%	(36)	(55)	(44)	(12)	(4)	(8)
Total	#	89	63	150	35	32	67
	%	(41)	(26)	(33)	(16)	(13)	(15)
			Quadrant 2			Quadrant 4	
6	#	3	8	11	5	1	6
	%	(18)	(42)	(31)	(29)	(5)	(17)
7	#	6	18	24	3	10	13
	%	(18)	(39)	(30)	(9)	(22)	(16)
8	#	9	21	30	9	7	16
	%	(19)	(55)	(35)	(19)	(18)	(19)
9	#	11	15	26	2	5	7
	%	(41)	(38)	(40)	(7)	(13)	(11)
10	#	10	20	30	4	3	7
	%	(32)	(63)	(48)	(13)	(9)	(11)
11	#	15	22	37	1	8	9
	%	(48)	(48)	(49)	(3)	(18)	(12)
12 & 13	#	13	8	21	0	2	2
	%	(52)	(33)	(43)	(0)	(8)	(4)
Total	#	67	112	179	24	36	60
	%	(32)	(46)	(39)	(11)	(15)	(13)

TABLE 24.--Disturbed Position Sort: Age and Sex.

Age		Boy	Girl	Both	Boy	Girl	Both
			Quadrant 1			Quadrant 3	
7	#	2	0	2	1	3	4
	%	(33)	(0)	(22)	(17)	(100)	(44)
8	#	4	1	5	1	0	1
	%	(67)	(25)	(50)	(17)	(0)	(10)
9	#	3	1	4	3	0	3
	%	(25)	(33)	(27)	(25)	(0)	(20)
10	#	5	1	6	2	0	2
	%	(56)	(50)	(55)	(22)	(0)	(18)
11	#	6	0	6	1	1	2
	%	(50)	(0)	(43)	(8)	(50)	(14)
12	#	1	1	2	0	2	2
	%	(9)	(33)	(14)	(0)	(67)	(14)
13 & 14	#	6	0	6	0	1	1
	%	(60)	(0)	(55)	(0)	(100)	(9)
	#	27	4	31	8	7	15
			Quadrant 2			Quadrant 4	
7	#	2	0	2	1	0	1
	%	(33)	(0)	(22)	(17)	(0)	(11)
8	#	1	3	4	0	0	0
	%	(17)	(75)	(40)	(0)	(0)	(0)
9	#	4	1	5	2	1	3
	%	(33)	(33)	(33)	(17)	(33)	(20)
10	#	0	0	0	2	1	3
	%	(0)	(0)	(0)	(22)	(50)	(27)
11	#	4	0	4	1	1	2
	%	(33)	(0)	(29)	(8)	(50)	(14)
12	#	5	0	5	5	0	5
	%	(45)	(0)	(36)	(45)	(0)	(36)
13 & 14	#	0	0	0	4	0	4
	%	(0)	(0)	(0)	(40)	(0)	(36)
Total	#	16	4	20	15	3	18
	%	(24)	(22)	(24)	(23)	(17)	(21)

APPENDIX E

BREAKDOWN OF RELATIONAL SORT

  1. Grade, for Normals

  2. Age, Normals and Disturbed

TABLE 25.--Normal Relational Sort: Grade and Sex.

Grade		Boy	Girl	Both	Boy	Girl	Both
			Quadrant 1			Quadrant 3	
I	#	19	23	42	19	18	37
	%	(33)	(50)	(44)	(38)	(39)	(38)
II	#	19	28	47	10	9	19
	%	(54)	(72)	(63)	(29)	(23)	(26)
III	#	25	30	55	6	6	12
	%	(66)	(77)	(72)	(15)	(15)	(15)
IV	#	23	28	51	5	2	7
	%	(72)	(74)	(73)	(16)	(5)	(10)
V	#	12	26	38	5	3	8
	%	(52)	(70)	(63)	(22)	(8)	(13)
VI	#	17	30	47	9	3	12
	%	(49)	(68)	(60)	(26)	(7)	(15)
	#	115	165	280	54	41	95
	%	(54)	(68)	(61)	(25)	(17)	(21)
			Quadrant 2			Quadrant 4	
I	#	0	0	0	12	5	17
	%	(0)	(0)	(0)	(24)	(17)	(18)
II	#	0	0	0	6	2	8
	%	(0)	(0)	(0)	(17)	(5)	(11)
III	#	1	0	1	6	3	9
	%	(3)	(0)	(1)	(16)	(8)	(12)
IV	#	2	7	9	2	1	3
	%	(6)	(18)	(13)	(6)	(3)	(4)
V	#	3	5	8	3	3	6
	%	(13)	(14)	(13)	(13)	(8)	(10)
VI	#	4	8	12	5	3	8
	%	(11)	(18)	(15)	(14)	(7)	(10)
	#	10	20	30	34	17	51
	%	(5)	(8)	(7)	(16)	(7)	(11)

TABLE 26.—Normal Relational Sort: Age and Sex.

Age		Boy	Girl	Both	Boy	Girl	Both
		Quadrant 1			Quadrant 3		
6	#	7	9	16	6	8	14
	%	(41)	(48)	(44)	(35)	(42)	(39)
7	#	15	27	42	12	14	26
	%	(44)	(59)	(53)	(35)	(30)	(33)
8	#	22	25	47	16	10	26
	%	(46)	(66)	(55)	(34)	(26)	(30)
9	#	20	30	50	4	3	7
	%	(74)	(77)	(76)	(15)	(8)	(11)
10	#	22	26	48	1	2	3
	%	(71)	(81)	(76)	(3)	(6)	(5)
11	#	17	34	51	9	2	11
	%	(55)	(75)	(67)	(29)	(4)	(15)
12 & 13	#	12	14	26	6	2	8
	%	(48)	(58)	(53)	(24)	(8)	(16)
	#	115	165	280	54	41	95
	%	(54)	(68)	(61)	(25)	(17)	(21)
		Quadrant 2			Quadrant 4		
6	#	0	0	0	4	2	6
	%	(0)	(0)	(0)	(24)	(11)	(17)
7	#	0	0	0	7	5	12
	%	(0)	(0)	(0)	(21)	(11)	(15)
8	#	1	0	1	9	3	12
	%	(2)	(0)	(1)	(19)	(8)	(14)
9	#	0	5	5	3	1	4
	%	(0)	(13)	(7)	(11)	(3)	(6)
10	#	4	4	8	4	0	4
	%	(13)	(14)	(13)	(13)	(0)	(6)
11	#	3	6	9	2	3	5
	%	(10)	(13)	(12)	(6)	(7)	(7)
12 & 13	#	2	5	7	5	3	8
	%	(8)	(21)	(14)	(20)	(13)	(16)
	#	10	20	30	34	17	51
	%	(5)	(8)	(7)	(16)	(7)	(11)

TABLE 27.--Disturbed Relational Sort: Age and Sex.

Age		Boy	Girl	Both	Boy	Girl	Both
		Quadrant 1			Quadrant 3		
7	#	1	1	2	4	1	5
	%	(17)	(33)	(22)	(67)	(33)	(56)
8	#	0	0	0	6	4	10
	%	(0)	(0)	(0)	(100)	(100)	(100)
9	#	1	2	3	9	0	9
	%	(8)	(67)	(20)	(75)	(0)	(60)
10	#	0	0	0	7	2	9
	%	(0)	(0)	(0)	(78)	(100)	(82)
11	#	3	0	3	6	1	7
	%	(25)	(0)	(21)	(50)	(50)	(50)
12	#	1	0	1	4	3	7
	%	(9)	(0)	(7)	(36)	(100)	(50)
13 & 14	#	3	1	4	2	0	2
	%	(30)	(100)	(36)	(20)	(0)	(18)
	#	9	4	13	38	11	49
	%	(14)	(22)	(16)	(58)	(62)	(58)
					Quadrant 4		
7	#				1	1	2
	%				(17)	(33)	(22)
8	#				0	0	0
	%				(0)	(0)	(0)
9	#				2	1	3
	%				(17)	(33)	(20)
10	#				2	0	2
	%				(22)	(0)	(18)
11	#				3	1	4
	%				(25)	(50)	(29)
12	#				6	0	6
	%				(55)	(0)	(43)
13 & 14	#				5	0	5
	%				(50)	(0)	(45)
	#				19	3	22
	%				(29)	(17)	(26)

APPENDIX F

TABLES FOR HYPOTHESES, POSITION SORT

TABLE 28.--Distribution of Normal Family Drawings, Position
Sort: Grade, Quadrants 1 vs. Quadrants 2, 3
and 4.

Sex	Quadrant	Grade						χ^2	p
		I	II	III	IV	V	VI		
Boys	1	21	13	17	14	10	12		
	2	8	8	10	9	11	21	31.65	.01
	3 and 4	21	14	11	9	2	2		
Girls	1	11	10	6	7	16	13		
	2	18	19	19	19	13	24	13.40	NS
	3 and 4	17	10	14	12	8	7		

TABLE 29.--Normal and Disturbed Family Drawings, Position Sort: Age 6-9 vs. 10-13, High vs. Low Family Identity.

Adjustment	Group	Family Identity	Younger	Older	χ^2	p
Normal	Overall	High	135	82	1.76	NS
		Low	133	106		
	MC Boys	High	43	20	2.56	NS
		Low	23	20		
	MC Girls	High	32	14	1.75	NS
		Low	50	34		
	LC Boys	High	35	24	.10	NS
		Low	25	21		
	LC Girls	High	25	24	.04	NS
		Low	35	29		
	Blacks	High	18	10	.93	NS
		Low	4	6		
Disturbed	Overall	High	19	27	.15	NS
		Low	15	23		
	MC Boys	High	6	5	Fisher's Test	NS
		Low	3	10		
	MC Girls	High	4	2	Fisher's Test	NS
		Low	2	0		
	LC Boys	High	8	16	.002	NS
		Low	7	11		
	LC Girls	High	1	4	Fisher's Test	NS
		Low	3	2		
	Blacks	High	1	3	Fisher's Test	NS
		Low	3	1		

APPENDIX G

TABLES FOR HYPOTHESES, RELATIONAL SORT

TABLE 30.--Drawings, Relational Sort: Normal and Disturbed
      by Sex, Class and Race; High vs. Low Growth.

Group	Growth	Normal	Disturbed	χ^2	p
Overall	High	310	13	79.19	.001
	Low	146	71		
MC Boys	High	77	2	30.51	.001
	Low	28	21		
MC Girls	high	118	2	Fisher's Test	.001
	Low	19	6		
LC Boys	High	46	7	8.67	.01
	Low	60	36		
LC Girls	High	77	2	Fisher's Test	.001
	Low	39	8		
Blacks	High	21	2	Fisher's Test	NS
	Low	19	6		

TABLE 31.--Normal Family Drawings, Boys and Girls,
      Relational Sort : Younger vs. Older,
      High vs. Low Growth.

Sex	Growth	Younger	Older	χ^2	p
Boys	High	65	60	5.69	.02
	Low	61	27		
Girls	High	96	89	12.69	.001
	Low	46	12		

TABLE 32.--Normal and Disturbed Family Drawings, Relational
Sort: Sex and Age, High vs. Low Family Identity.

Adjustment	Group	Family Identity	Younger	Older	χ^2	p
Normal	Overall	High	228	147	3.13	NS
		Low	40	41		
	MC Boys	High	55	31	2.25	NS
		Low	8	11		
	MC Girls	High	76	33	7.42	.01
		Low	6	12		
	LC Boys	High	47	36	.18	NS
		Low	16	9		
	LC Girls	High	50	47	.03	NS
		Low	10	9		
	Blacks	High	15	10	.01	NS
		Low	8	7		
Disturbed	Overall	High	29	35	2.61	NS
		Low	5	15		
	MC Boys	High	9	9	Fisher's Test	NS
		Low	0	5		
	MC Girls	High	5	2	Fisher's Test	NS
		Low	1	0		
	LC Boys	High	12	19	.24	NS
		Low	3	9		
	LC Girls	High	1	4	Fisher's Test	NS
		Low	4	1		
	Blacks	High	4	3	Fisher's Test	NS
		Low	0	1		

APPENDIX H

TABLES, ADDITIONAL FINDINGS, POSITION SORT

TABLE 33.--Normal Drawings, Position: Growth, Sex, Class, Race.

Group	High Growth	Low Growth	χ^2	p
Boys	154	59	.001	NS
Girls	175	68		
MC	187	51	9.56	.02
LC	142	76		
Blacks	30	10	.83	NS
LC Whites	112	66		

TABLE 34.--Normal Family Drawings in Quadrants, 25% Expected Frequency, Position Sort.

Quadrant	Observed	Expected	χ^2	p
1	150	114	6.53	.05
Others	306	342		
2	179	114	20.06	.001
Others	277	342		
3	67	114	14.59	.001
Others	389	342		
4	60	114	19.95	.001
Others	396	342		

TABLE 35.--Normal Family Drawings in Quadrants 1 and 2,
Position Sort: Sex and Grade.

Grade	Sex	Quadrant 1	Quadrant 2	χ^2	p
I	Boy	21	8	5.65	.02
	Girl	11	18		
II	Boy	13	8	2.67	NS
	Girl	10	19		
III	Boy	17	10	7.87	.01
	Girl	6	19		
IV	Boy	14	9	4.20	.05
	Girl	7	19		
V	Boy	10	11	.06	NS
	Girl	16	13		
VI	Boy	12	21	.02	NS
	Girl	13	24		

TABLE 36.--Drawings in Quadrants, Normal vs. Disturbed;
Position.

Quadrant	Normal	Disturbed	χ^2	p
1	150	30	.12	NS
Others	306	54		
2	179	20	3.53	NS
Others	277	64		
3	67	15	.33	NS
Others	389	69		
4	60	18	3.28	NS
Others	396	66		

TABLE 37.--Normal Family Drawings: Placement of "Me," Based
on 12-1/2% Chance Expectation; Boys and Girls.

Sex	Position of "Me"	O	E	χ^2	p
Boy	By Opp-sex Parent	80	26.63	34.32	.001
	Other Positions	133	186.38		
	By Like-sex Parent	43	26.63	8.03	.02
	Other Positions	170	186.38		
Girl	By Opp-sex Parent	50	30.38	5.17	NS
	Other Positions	193	212.63		
	By Like-sex Parent	85	30.38	32.68	.001
	Other Positions	158	212.63		

TABLE 38.--Normal Family Drawings: Placement of "Me," Boys
                vs. Girls.

Position of "Me"	Boy	Girl	χ^2	p^a
By Opp-sex Parent	80	50	15.26	.01
Other Positions	133	193		
1st, Sibs by Folks	7	13	1.15	NS
Other Positions	206	230		
Next Like-sex Parent	43	85	16.65	.01
Other Positions	170	158		
Independent	24	27	0	NS
Other Positions	189	216		
In Sibship	20	23	.02	NS
Other Positions	193	220		
Between Parents	15	9	1.91	NS
Other Positions	198	234		
Last, Sibs by Folks	17	196	2.67	NS
Other Positions	32	211		
Isolated	7	4	.69	NS
Other Positions	206	239		

[a]Two-tail test

TABLE 39.--Placement of "Me" in Family Drawings: Normal
vs. Disturbed.

"Me" Placement	Normal	Disturbed	χ^2	p^a
By Opp-Sex Parent	130	30	1.44	NS
Others	326	54		
1st, sibs by Folks	20	1	1.18	NS
Others	436	83		
Like-sex Parent	128	20	.33	NS
Others	328	64		
Independent	51	0	9.11	.02
Others	405	84		
In Sibship	43	8	.02	NS
Others	413	76		
Between Parents	24	7	.73	NS
Others	432	77		
Last, Sibs by Folks	49	4	2.34	NS
Others	407	80		
Isolated	11	10	14.65	.01
Others	445	74		
Oppositional	0	4	Fisher's Test	.0005
Others	456	80		

[a]Two-tail test

APPENDIX I

TABLES, ADDITIONAL FINDINGS, RELATIONAL SORT

TABLE 40.--Normal Family Drawings, Relational Sort: High
vs. Low Growth, by Sex, Class and Race.

Group	High Growth	Low Growth	χ^2	p[a]
Boys	125	88	15.08	.01
Girls	185	58		
MC	185	47	28.91	.001
LC	125	99		
Blacks	21	19	.08	NS
LC Whites	104	80		

[a]Two-tail test

TABLE 41.--Distribution of Normal Family Drawings by
Quadrant, Boys vs. Girls, Relational Sort.

Quadrant	Boy	Girl	χ^2	p[a]
1	115	165	8.69	.02
Others	98	78		
2	10	20	1.77	NS
Others	203	223		
3	54	41	4.45	NS
Others	159	202		
4	34	17	8.31	.02
Others	179	226		

[a]Two-tail test

TABLE 42.--Distribution Normal Family Drawings by Quadrant, Middle vs. Lower Class, Relational Sort.

Quadrant	Middle Class	Lower Class	x^2	p
1	163	117	14.87	.01
Others	69	107		
2	22	8	5.55	.05
Others	210	216		
3	32	63	13.34	.01
Others	200	161		
4	15	36	9.64	.02
Others	217	188		

TABLE 43.--Distribution of Normal Drawings by Quadrant, Black vs. Lower Class White, Relational Sort.

Quadrant	Black	White Lower Class	x^2	p
1	18	99	.70	NS
Others	22	85		
2	3	5	1.01	NS
Others	37	179		
3	7	56	2.12	NS
Others	33	128		
4	12	24	6.42	.02
Others	28	160		

TABLE 44.--Family Drawings by Quadrant: Normal vs.
           Disturbed, by Sex, Class and Race;
           Relational Sort.

Sex,Class,Race	Quadrant	Normal	Disturbed	χ^2	p[a]
Boy	1	115	9	33.23	.001
	Others	98	57		
	3	54	40	28.01	.001
	Others	159	26		
	4	34	17	2.63	NS
	Others	179	49		
Girl	1	165	4	13.35	.01
	Others	78	14		
	3	41	11	17.85	.01
	Others	202	7		
	4	17	3	Fisher's	
	Others	226	15	Test	NS
Middle Class	1	163	4	36.37	.001
	Others	69	27		
	3	32	21	45.89	.001
	Others	200	10		
	4	15	6	4.55	NS
	Others	217	25		
Lower Class	1	117	9	20.12	.001
	Others	107	44		
	3	63	30	14.33	.01
	Others	161	23		
	4	36	14	2.44	NS
	Others	188	39		
Blacks	1	18	2	Fisher's	
	Others	22	6	Test	NS
	3	7	5	Fisher's	
	Others	33	3	Test	.02
	4	12	1	Fisher's	
	Others	28	7	Test	NS

[a]Two-tail test

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