

THE EFFECT OF AN INTRODUCTORY COURSE IN CHILD DEVELOPMENT
ON THE EMPATHY OF SOPHOMORE COLLEGE WOMEN
TOWARD CHILDREN

by

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TABLE OF CONTENTS

INTRODUCTION AND REVIEW OF LITERATURE	1
Need for the Study	1
Objectives of the Study	2
Definition of Empathy	3
Importance of Empathy in Human Relations	5
Age as Related to Empathy	6
Sex as Related to Empathy	8
Education as Related to Empathy	8
Intelligence as Related to Empathy	9
Other Factors Related to Empathy	9
Studies Done on Effect of Course	11
PROCEDURE	15
Selection of Test	15
Description of Test	16
Selection of Subjects	17
Place and Time of Test	18
The Test Period	18
Scoring Method and Manual	19
Observation at the Child Development Laboratory	22
Statistical Analysis	23
RESULTS AND DISCUSSION	23
Setting for the Study	23
Scores at the Beginning and End of the Year	24
The Relation of A.C.E. Scores, Freshman Grade Point Average, Experience, and Ordinal Position to Empathy	28

Discussion of Individual Pictures	30
Observed Behavior of the Highest and Lowest Scoring Person	34
CHARACTERISTICS OF GROUPS	38
Class	38
Control	38
LIMITATIONS OF STUDY	39
CONCLUSIONS	40
SUGGESTIONS FOR FURTHER RESEARCH	40
ACKNOWLEDGMENT	42
LITERATURE CITED	43
APPENDIX	47

INTRODUCTION AND REVIEW OF LITERATURE

This study is concerned with the effect of instruction in a course in child development upon college women's empathy toward children as revealed by scores on the Dawe-Jones Picture Test.

Need for the Study

Various investigators have pointed out the need for this type of study. Foote and Cottrell (12), p. 54 stated:

The kind of interaction experienced in the family as well as in other groups appears to depend heavily upon the degree to which empathic capacity develops, but experimental research on fluctuations in this element of competence has hardly begun.

Luchins (31), p. 15 stated that "research is needed to discover factors which increase or decrease an individual's empathic behavior." Luchins believes that exploration is needed which will show the effect of an attempt to minimize or maximize empathy for a given individual or a given group of people.

Hatch (19), p. 327 related:

Insofar as the quality of human relationships is accepted as making the difference between healthy and less healthy personalities, and healthy and less healthy social groups, questions directly related to the creation of relationships of different qualities demand immediate attention.

Empathy, or sympathetic understanding of another person's feelings is considered to be a personality trait possessed by different persons in different degrees. Yet, Watson (52) suggested it would be reasonable to assume that empathy can be learned, at least to some extent, -- that regardless of the amount of empathy one started with, "understanding of another person's feelings" would increase as knowledge about that person

and what he is like increases.

It would also be reasonable to assume that ability and work habits affect the amount of knowledge gained and consequently the amount of change a student would show in empathic ability after taking a course which teaches the student about children. The Psychological Examination of the American Council on Education (A.C.E.) is used at Kansas State University to measure the scholastic ability of freshman. Grades express a combination of ability and work habits. Therefore, it would seem logical that grade point averages and A.C.E. scores (percentiles) could be related to the change a student would show in empathic ability after instruction about children.

Various authors Jung (24), Symonds (49), Lewis (28), Thorpe (50), Harris (17), Merry and Merry (35), and Hess and Handel (21) emphasized the great effect of home environment on the attitudes children develop and carry throughout life. Therefore, if the home environment is so influential, it would be reasonable to assume that ordinal position and previous experience with children would also affect the increase in empathic ability students might show after taking a course in child development.

This study is designed to see if increased knowledge and understanding of children, acquired as a result of taking a course in child development, will increase the empathy of the college women for children.

Objectives of the Study

The specific objectives of this study were: (1) to find the degree of empathy expressed by a selected group of sophomore college women on a specific test before and after taking an introductory course in child development, (2) to compare the test scores with those made by a control

group not taking such a course, (3) to find the relationship between the degree of empathy expressed and freshman grade point average, A.C.E. scores, experience with children, and ordinal position, (4) to find the relationship between the gain in empathy and; freshman grade point average, A.C.E. scores, experience with children, and ordinal position.

Definition of Empathy

The concept of empathy has been used to designate the feeling one has for an object. Gordon (13), p. 892 in 1934 declared that the general concept of empathy, "the feeling oneself into the object," has for years played a part in theories of aesthetics. He believed that appreciation of an object was enhanced by this participation in its activity.

Winn (54), p. 138 in 1953 extended the term, empathy, to include unconsciously feeling oneself in the place of a person or an object. He considered empathy to be an analogy of the word sympathy. He stated, "All significant experiences which are accompanied by inner strains, incipient movements, and stresses embody empathy." Luchins (31) stated that in the early 1900's Lipps used the term empathy for a theory in which imitation was considered essential to the understanding of other people.

Lindgren (29), p. 52 stated empathic communication is that carried on beyond the limits of awareness and called it "an exchange of feeling-tone." Sullivan's (48) definition is related to Lindgren's exchange of "feeling-tone" as he uses empathy to refer to the emotional linkage of the infant with his mother and other significant people. Empathy was described by Foote and Cottrell (12), p. 71, as the "basic response capacity on which the processes of socialization, development of a self, communication, and

integration rest."

Dymond (10), p. 202 and Meek (34) agreed that empathy is the ability to put oneself in the place of another and understand the world as he does. In Dymond's words empathy is: "The imaginative transposing of oneself into the thinking, feeling, and acting of another and so structuring the world as he does."

Dymond (11), differentiated empathy from other similar words and concepts such as sympathy, insight, identification and projection. Dymond differentiated as follows: sympathy implies assistance and consideration for others; insight, a product of empathy, is a process by which we see others or ourselves as others see us; identification is the emotional acceptance of another as what one would like to be; while projection is attributing one's own ideas to another.

Most writers view empathy as being a neutral process, that is, as the ability to understand and predict the responses of others without any positive or negative feelings being involved. However, Jones (23) and one other writer, Hatch (19) who developed tests for measurement of empathy in real-life situations, found it necessary to include a positive feeling (sympathy) in their operational definitions of empathy.

Thus, Jones (23), p. 15 said:

We are measuring not empathic ability in the abstract, but empathy in action. Empathy empirically considered, as an asset for adults who interact with children, ideally goes beyond silent understanding to manifest itself in appropriate behavior by the adult understanding to the child.

Hatch (19), p. 31, stated that if communication is seen as a positive process, empathy which is basic to communication between persons should be seen as a positive process. Hatch observed that an empathic response does not promise continued positive behavior toward the other person. She cited

the person who, because he is particularly aware of the other person's reaction, knows just when to make the remark that will deal the "death blow".

Luchins (31), stated that in the early stages of investigation, it might be best to define empathy operationally and to leave open the question of the processes which bring it about.

The following operational definition of empathy was given by Hatch (19), p. 14.

Empathy is the out-going response of one person toward another which bridges the person-to-person gap between reactive systems. It is essentially a communicative process whereby one individual reacts by entering into another individual's experiencing of a situation. It is a process of responding in a situation by setting one's apperceptive and perceptive dials in order to tune in the reaction of the other person.

Jones (23), p. 15, also gave an operational definition of adult empathy for young children and this is the definition which will be used in this study:

The empathic adult will respond to a child's expression of needs by quickly recognizing and accepting the child's feelings in the situation. It is proposed that this empathic understanding will manifest itself, and thus be communicated to the child, in the showing of warmth and sympathy to the child. It is expected that the empathic adult, as well as feeling with the child in a situation, will recognize each child as unique, will see a child's reactions in terms of causes and will be able to think clearly, richly, in well-organized fashion about the total personality structure of a child.

Importance of Empathy in Human Relations

Foote and Cottrell (12), p. 54, believed empathy to be so important that "no human association, and least of all democratic society, is possible without the processes indicated by this term." They further stated that the "sign of its absence is misunderstanding."

Hastorf (18), said that an understanding of empathic ability will contribute greatly to the understanding of personality problems as well as social psychology.

Empathy was believed by Sullivan (48) to be of the utmost importance in analysis and treatment of personality disorders.

Foote and Cottrell (12) stated that some social psychologists have come close to defining their field as the study of empathy.

The importance of adult empathy for children has been emphasized by several researchers.

Rogers (44), p. 80, who is interested in creativity stated:

If people understand children empathically, see them and what they feel and do from their point of view and still accept the child, the child feels safe and in this climate can permit his real self to emerge, and to express himself in varied and novel forms as it relates to himself and the world.

This empathic understanding of children he stated is the basis for developing creativity in children.

Watson (52) related that greater child freedom (the result of acceptance) is clearly associated with more initiative and independence, better socialization and cooperation, less inner hostility, and a higher degree of creativity. Baldwin (2) and Marklund (32) express views similar to those of Watson and Rogers.

Age as Related to Empathy

Murphey (37), p. 86, studied sympathy in young children and stated that during the preschool period both the variety of social responses and the amount of social responses normally increases with age and that sympathetic behavior differs in no essential respect from any other cross-section of behavior. She stated, "Sympathetic behavior, leadership, and friendships

increase hand in hand with resistance, aggressions, and less comfortable behavior of young children."

A projective test was used by Burns (7) to estimate the empathic ability of children age three to five as compared to age five to six and one-half. He found that the number of empathic responses given by younger subjects was significantly lower than the number of such responses given by older subjects.

Sullivan (48) believed the time of empathy's greatest importance was in later infancy and early childhood -- perhaps age six to twenty-seven months.

The flowering of awareness of the feelings of others was placed during the primary years by Lane (26).

Dymond (10) reported that at least on projective tests and measures of socioempathy (an individual's awareness of his own and others' status) children's empathic ability increases from age seven to age eleven. She suggested that as children become older they become more aware of which feelings are "safe" to admit and also that as they become older they are more verbal. Breckenridge and Vincent (4) believed that sympathy develops from four up through the elementary school years. They based this belief on the idea that understanding of how other people feel, except for the most imaginative people, is based upon some personal experience in the given situation.

Perhaps there is a change in the situations and events people have empathy and sympathy for rather than a change in their empathic ability.

Studying sympathy and pity Sakellarious (46) reported that children have sympathy for their parents for sickness, old age, and death whereas

adolescents have sympathy for domestic discord. In the school situation he reported children to be sympathetic for sickness of the teacher and accident whereas adolescents are more sympathetic when the teacher is mistreated by the pupils or is unable to manage all of her work.

Baldwin (2) reported that parents of nine year old children tended to be less warm, less intellectually stimulating, less indulgent, and more restrictive than parents of three year old children. He explained this change in terms of the growth of independence during childhood and the changes in cultural standards for handling children of various ages.

Sex as Related to Empathy

Murphy (37) found no sex difference in the sympathy expressed by children. Loban (30) found that a larger number of adolescent girls were more sensitive than adolescent boys and that girls tended to vary more than boys. Remmers (43) found that high school girls scored better on acceptable attitudes toward child management than did boys. Burchinal (6) and Hawkes (20) found that mothers were more accepting than fathers.

Education as Related to Empathy

Remmers (43) found that teen-agers whose parents completed high school or attended college showed the more acceptable attitudes toward child management on a written test. She also found that eleventh and twelfth grade boys and girls are shown by a written test to be better child managers irrespective of parental education and home environment than ninth and tenth grade boys and girls. No relationship was found between education level or occupation and the degree to which parents accepted their children in a study done by Burchinal and Hawkes (6).

Schaefer (47), Porter (41), and Roy (45) reported that greater child freedom was found in positive ratio to the education of the parents.

Intelligence as Related to Empathy

Studying sympathy in young children Murphy (37) found a general trend related to intelligence. As measured by Chambers' (8) study, empathy and scholastic aptitude are different abilities but each contributes significantly to scholastic success. He explained that if learning is looked upon as a sort of experiencing into a situation as well as sheer mastery of facts, an ability which permits the taking of the role of another facilitates experiencing into a situation. Miller (36) introduced a measure of "socioempathy" and applied this measure to mentally retarded children, typical children, and superior children. His study indicated a relationship between mental ability and socio-empathy. No correlation was found by Loban (30) between adolescents' social sensitivity and intelligence.

Other Factors Related to Empathy

According to Murphy (37), sympathy in children is affected by how secure the child feels in the situation, the example set by the teacher, and whether the child feels his own status is in question.

Luchins (31) found that certain factors tended to interfere with an individual's understanding of another individual or of the nature and direction of the group. These factors included: centering on one's own needs, emotions, or purposes; focusing on only one feature of an individual's behavior; focusing on only isolated individuals in the group or on only one event or on one emotional nuance of the group session; stereotypes concerning the relationship between

physical features and personality traits; prejudices regarding an individual's race, religion, or nationality; lack of information concerning what had happened in previous sessions; viewing a patient or the group in terms of psychiatric information picked up in popular books or in various therapeutic experiences; and keeping a distance between oneself and the others because of reluctance to become involved in group activity.

Discussing the ability of adults to empathize with children, Olden (38), p. 682 believed "passivity, patience, some belief in magic, and some casualness about destruction" favored empathy. "Self-complacency, aggressiveness, differences in ego structure of adult and child, and neurotic problems" were seen as blocks to empathy.

Loban (30), p. 682, measured the social sensitivity among adolescents. He found that sensitive adolescents were more concerned over their interpersonal relations. Low socio-economic status was less conducive to sympathetic behavior for adolescent boys than average or good socio-economic conditions. The least sensitive adolescents tended to approve persons "who run their own lives", who are reckless, independent, and restless. Quality and intensity of religious experience did have a relation to sensitivity, but church attendance and denomination had no relation. The more sensitive adolescents were more popular with their peers than were the least sensitive. No significant difference existed between the two groups in regard to reading ability as measured by the Traxler Reading Tests. More highly sensitive adolescents showed a greater interest in books and choices that dealt with idealistic, esthetic, and sympathetic themes. The least sensitive adolescents liked books that emphasize cruelty. There were no differences in race as related to social sensitivity. Highly sensitive adolescents tended

to be more stable and to consider themselves in better health than the least sensitive adolescents. No significant difference between the two groups was found in respect to size of family or position of child in order of birth.

Studying student nurses, Halpern (16) concluded that similarity may be an important part of the empathic process. It may be that people are better able to recognize in others what they have experienced on some level in themselves.

Marital adjustment was found by Porter (42) to be related to parental acceptance of children.

Kindergarten children's control and acceptance of their same sex peers was found by Knowles (25) to be related to their parents' control and acceptance of them.

Bullard (5) found no relationship between the empathy of preschool children and that of their parents as measured by two specific tests.

Studies Done on Effect of Course

Watson (53), p. 42, did a study using the Dawe-Jones Picture Test to compare students' empathy before and after a course in instruction in child development. She found that the total scores showed a slight improvement after instruction, differences tended to level out after instruction, and the more challenging situations which initially drew the poorest scores showed the greatest improvement. Watson stated that the responses were relatively stable. Her conclusion was that "empathy, as revealed by the Dawe-Jones Picture Test, is slightly amenable to instruction, but that in general it is a fairly stable personality characteristic". Watson suggested that a better study would be one which uses a control group and that future studies might investigate the characteristics of persons who answer in

certain ways.

Meek (34) attempted to determine whether or not empathic ability of students in teacher training could be improved by direct efforts to teach empathy in the classroom situation. Empathy was measured by: (1) the ranking test in which each student ranked himself and another student with whom he had experienced a 25-minute interview on seven personality characteristics and (2) the Psychological-mindedness Scale of the California Psychological Inventory, to which each student responded himself and then responded as he thought his partner would respond. Scores were obtained on these tests by summing the discrepancies between a student's judgment of himself and the other person's judgment of him.

The comparison of students' scores on the two empathy tests before and after the four-weeks course of instruction revealed a significant improvement in score on the ranking test, but no change on the inventory. A control group showed no significant changes. Meek concluded that special efforts to teach empathy had been effective for understanding how another person would respond regarding general judgment of another person but that this training was not effective enough to improve the student's understanding of how another person would respond to specific items such as those on the inventory.

A group of recent studies relating to the evaluation of a specific three year in-service child study program for teachers is reported in a monograph by Brandt and Perkins (3). The child study program was sponsored by the Institute for Child Study of the University of Maryland. The studies reported in this monograph are composed of doctoral dissertations or master's theses done in a ten-year period 1947-1956.

Generally there was little change the first year of participation, a slightly significant change at the end of the second year of participation, and a significant change at the end of the third year of participation.

Those findings which have a direct bearing on the present study are concerned with changes in teachers' attitudes toward children as measured by paper-and-pencil tests and ratings, and those concerned with actual behavioral changes in the teacher's actions toward children.

As a result of participating in the child study research:

Perkins (40) found that teachers tended to become warmer and more accepting of children as revealed by an analysis of verbal statements teachers made at child study meetings. Lehman (27) found that principals rated their teachers as more tolerant in working with all children and more objective in seeking behavior causes after participation in the child study program.

Using the Wickman Behavior Rating Scale Hohl (22) found that the longer teachers participated, the more their judgment regarding the seriousness of children's behavior tended to agree with the judgment of mental hygiene authorities. Avery (1) who studied attitude changes in two years of child study found that teachers showed a positive change in ability to analyze hypotheses of behavior in relation to actual evidence and to draw appropriate generalizations regarding the causes of a child's behavior.

According to Duff (9), teachers indicated increasing awareness of human development principles as revealed by open-ended personal interview data. Teachers who were completing the third year of child study were found by Wood (55) to be significantly more accepting of themselves, of others, and of their environments, than were teachers in the first or second year. Green (14) in an analysis of case records written by classroom teachers,

found that negative ways of handling children in the classroom first decreased and then positive ways were increased as the students progressed in child study.

Haddock (15) by direct observation of teachers in their classrooms found that at the end of the three year period they showed more sensitivity to human development principles.

It must be kept in mind that in the above studies changes were gradual and were found over a three year period.

Walters (51) investigated the effect of an introductory child development course on attitudes of the college women taking the course. He compared scores on two parent attitude scales of an experimental group of 76 students enrolled in the course and of a control group of 80 students not enrolled in the course at the beginning and end of the semester. The gain of the experimental group was significantly greater than the gain of the control group on the Wiley Child Guidance Survey although there was little difference between experimental and control subjects on the Shoben Parent Attitude Survey. No differences were found for social class, rural-urban residence, ordinal position or freshman grade point averages.

Students ranking at the 50th percentile or above on the A.C.E. examination obtained a significantly better initial mean score on the Parent Attitude Survey than did students below the fiftieth percentile. Size of family (two or less compared to more than two) was not significant on the Parent Attitude Survey but was significant at the five per cent level on the Wiley Child Guidance Survey. The students from smaller families tended to have better attitudes toward child guidance. Students who rated their childhood as "very happy" made significant gains between the beginning and end of the

semester. Walters concluded that certain attitudes concerning the guidance of children could be modified during the course of a semester.

Marshall (33) used two similar groups of students enrolled in a course in child development in an attempt to modify student attitudes on guidance-of-children scales through classroom teaching. One group was exposed to two lessons describing the basis for the permissive, democratic guidance in the observation nursery school and the other group was not given this training. Control groups composed of other college students were used to study changes in attitude scores of groups of students.

The findings of the study indicated that the group which did not receive the two lessons describing the reasons for democratic guidance finished the course with a strong belief that harsh punishment is a good way to control children and with a disapproval of permissive, democratic guidance.

The group which had the benefit of the two lessons finished the course favoring democratic guidance in some situations, and maintained their relative class position as to strength of attitudes toward guidance even though some individuals changed. However as a group, they still agreed that harsh punishment was a good way to control children. Thus, classroom teaching modified the attitudes of individuals toward guidance of children, and modified the pattern of relations between attitudes within groups of students and yet did not produce any change in the mean attitude scores of the students enrolled in the course.

PROCEDURE

Selection of Test

For the purposes of this study a test was sought which measured the

empathy adults expressed toward children. It was desired that the test be of a type which would encourage college women to give a spontaneous answer typical of their actions in a real life situation. Therefore the questions had to be such that they could be comprehended immediately.

It was essential that the test be representative of many situations which occur between adults and children, represent a variety of children's needs, and show the adult and child working toward more than one type of goal. It was considered important that the test allow for the student's natural response rather than merely a choice of stereotyped answers. It was desired that the age and temperament of the child be indeterminate and that both sexes be represented.

The Dawe-Jones (23) test was considered to meet the above requirements. Since it is a picture test, quick spontaneous answers are possible. The test contains a cross-section of situations occurring between adults and children, represents a variety of children's needs, and represents a variety of goals to which the adult and child are working. The exact age and temperament of the child in the line drawings is purposely indefinite and consequently had to be determined by the subject. Children and adults shown in the drawings represent both sexes.

Description of Test

The Dawe-Jones Test (23) was developed at the University of Wisconsin in 1954. Jones used an adaptation of the children's form of the Rosenzweig Picture-Frustration Study. The test was developed to meet the following criteria: (1) the test was to include common situations which normally occur between adults and children, (2) the situations were to represent a variety

of common emotional needs of children, (3) the situations were to be of a sort in which different responses were possible within the culture pattern, (that is, the pictures were to leave the way open for expression of approval, disapproval, help, no help, acceptance, rejection, sympathy, or no sympathy. The adult in each case might clearly recognize and directly respond to the child's needs, recognize but redirect the child's need, ignore, reject or deny the child's need.), (4) three sorts of relationships were to be included, child's relationship with his material world, when help or approval from the adult was needed, a child's relationship with other children, both peers and younger or older children when help in working out the relationship was needed from the adult, a child's relationship directly with the adult. In the first two instances, the adult functions as a means to an end for the child; in the third, the relationship with the adult is itself the goal, (5) pictures of children were to be of indeterminate age and the two sexes were to be equally represented among both children and adults pictured.

The test consisted of twenty line drawings in which a child and an adult are shown talking to each other. Their faces are expressionless. The words said by the child are always given. The subject is asked to imagine what he would say to the child and give that answer as quickly as he can.

Selection of Subjects

Two groups of university women were selected for this study. One group consisted of home economics students enrolled in an introductory child development course. A control group consisted of home economics students who were not at the time enrolled in the course and who had never taken such a course. The members of the two groups were matched for their classification

in the university.

All of the students enrolling in the course signed a sheet at enrollment listing their classification and telephone number as well as the time they were assigned to the child development laboratory. There were more students of sophomore classification than freshman, junior or senior classification. Therefore the twenty-seven sophomores in the course were used as subjects for this study.

The control group was picked from the Dean's list of sophomore students enrolled in home economics. Those sophomores who were presently or had previously been enrolled in child guidance courses were eliminated. From the remaining list a group of twenty-seven sophomores was picked at random by the Kansas State University Statistical Laboratory.

The students chosen for the study were contacted by telephone and were asked to take part in the study.

Place and Time of Test

The twenty-seven sophomores enrolled in the class were interviewed in the office of the child development laboratory during their laboratory periods in January and again in May 1960. The twenty-seven subjects in the control group were interviewed in the family and child development observation room in the home economics building in January and May 1960.

The Test Period

The interviewer sat facing the student being tested. A tape recorder which operated during the interviews was placed on a table between the interviewer and student. The interviewer held up the pictures which were mounted

on cardboard, read to the student the words said by the child and then the student answered with what he would say to the child. As the student finished each response, the interviewer turned to the next card. The students answered quickly and seemed to be watching the pictures rather than the interviewer. Each interview took about ten minutes.

The following directions were given to the students at the beginning of the interview:

Initial Explanation. "This test is being developed as part of a research project in Child Development. We are interested in investigating the variety of responses which different people may give to a test of this sort. You are asked to give the answer that you think you would give the child, without taking time to think it over. You are to give each answer as soon as you can".

Specific Directions. "The directions are as follows: In each of the pictures on the series of cards which you are about to see, two people are shown talking to each other. I will read to you the words said by the child. Imagine what you would say to the child and give that answer. Give the very first reply that comes into your mind".

The test was always begun by saying, "Now _____ (call girl being tested by name), if the child said _____, what would you say?" This helped on the tape in identifying the girl as well as the question she was answering.

The tapes were typed each evening following the interviews.

Scoring Method and Manual

To avoid bias the interviewer and a faculty member separately scored the tests. The Dawe-Jones (23) scoring manual was used as a guide. When the two scorers compared their evaluations there was 88% agreement. The differences

that did exist were: over several answers of the same type, usually a difference of only one score, and tended to balance out when the total score was considered. The two scorers discussed those cases in which they disagreed and an agreement was reached.

The degree to which the subject showed empathy towards the child was kept in mind while scoring. For the purposes of this study Jones' (23), p. 10, definition of empathy was used. The empathic individual was defined by Jones as one who "will respond to a child's expression of needs by quickly recognizing and accepting the child's feelings in the situation. He will take appropriate action to meet the child's needs, show warmth and sympathy towards the child, and will see the child's reaction in terms of causes."

In scoring each situation both the needs of the child and how the answer would appear to the child were kept in mind. To facilitate easier scoring and statistical analysis the answers were given scores of 1, 2, or 3 rather than the -, †, or + used by Jones.

An answer which would make the child feel that his needs and feelings were accepted was scored 3. An answer which would make the child feel that his needs and feelings were rejected was scored 1. If in the statement of the adult there were elements of both 3 and 1 a score of 2 was used. If the child or the interviewer was confused or unsure of the adult's response Jones used a question mark. For the purposes of this study answers which fell into this category were discussed by the scorers and assigned to one of the three categories.

For example in picture number three two adults are shown talking to a child. One adult wears a coat and hat. The child says to the adult, "I don't want to kiss Grandma goodbye." The child is rebelling against social demands,

perhaps expressing shyness or wanting independence.

If the subject recognized the child's right to decide for himself or perhaps mentioned a possible change in feelings at some future date the answer was scored 3.

If the subject accepted the child's feelings but proposed an alternate way of saying goodbye or accepted the child's feelings but tried in some way to have the child comply (coaxed, mild criticism, etc.) the answer was scored 2.

If the subject ordered the child to comply or rejected or denied the child's feelings or threatened punishment the answer was scored 1.

The following are examples of answers from this study which were scored in each category:

(Scored 3) "All right, you don't have to. I don't think Grandma will mind."

"That's all right honey, maybe next time."

"Well, I don't think that you have to kiss Grandma goodbye if you feel you don't want to."

"I would just sort of ignore the child and try to change the conversation. I wouldn't make him go ahead and kiss."

(Scored 2) "Well, all right, shake her hand or something."

"Okay, let Grandma kiss you then."

"All right. Tell her goodbye in another way then."

"Well, honey, I think Grandma would like it if you would but if you don't want to you don't have to."

(Scored 1) "But Grandma came all this way to see you."

"Grandma will not be back for quite a while and maybe you should kiss her before you see her again."

"Well, Grandma might feel bad."

"But don't you think you should? After all she is your Grandmother."

"Oh sure you do. Don't you think that Grandma has done a lot of things for you like making candy or something like that."

Observation at the Child Development Laboratory

After the scores were totaled, observations were made at the Child Development Laboratory of the class member who scored highest on the empathy test and the class member who scored lowest. These observations were made to see if the two subjects' actual behavior was similar to their performance on the written test. Each subject was observed for two and one-half continuous hours. The investigator had conflicting class schedules and could only observe for one and one-half hours. Therefore the graduate assistant of the subject's group observed the subject for the last hour. Previously practice observations were made with the graduate assistant and the investigator both keeping running observational records. Complete agreement was found between these records. The highest scoring subject was observed on a Monday morning helping the younger group of children off with their coats, during creative activity, and in a free play situation. The lowest scoring subject was observed on a Monday morning one week later with the older group of children during the same activities. Then the girls were transferred to the age group they had not been working with and observed again.

To avoid bias in scoring these running observational records were evaluated by the investigator and the previously mentioned faculty member and scored 1, 2, or 3 as to the empathy the students showed. The empathy test scores of the two students were compared with their score on the running records to see if the highest and lowest scoring students had high and low

empathy respectively in their contacts with children.

Statistical Analysis

The Kansas State University Statistical Laboratory tested the change of the class and the control with t-tests to see if the average difference in empathy score was more than that which could have occurred by chance. The initial empathy score was correlated with the A.C.E. score and freshman grade point average. F tests were used to see if experience and ordinal position were related to empathy and gain in empathy. A.C.E. scores and freshman grade point averages were also correlated with gain in empathy.

RESULTS AND DISCUSSION

Setting for the Study

The students enrolled in the introductory course in child development studied the physical, mental, emotional, and social development of children. They read child development literature by the following authors: Read, Baruch, Strang, Landreth, and Jersild. The students saw the following films: A Long Time to Grow, Social Development, Life with Baby, Food as Children See It, Children's Drawings, and Children's Emotions.

Class members observed and discussed young children who were under the guidance of trained teachers at the Kansas State University Child Development Laboratory. The students' laboratory experience differed from those in some schools in that the students actually helped the children with such routines and activities as toileting, removing wraps, and creative activities.

Scores at the Beginning and End of the Year

The possible range of scores was 20 to 60 (20 pictures scored 1, 2, or 3 each). The mean of the class was 36.6 when the test was first given. The ninety-five per cent confidence interval for the mean class empathy scores was $35 \leq \mu \leq 38$. The control group had a mean of 34 when the test was first given and the ninety-five per cent confidence interval was found to be $32 \leq \mu \leq 36$. The μ is the true average empathy score for each group. Thus the class had more empathy at the beginning of the year than did the control group.

At the end of the year the class showed an average gain of 4.26 and the control an average gain of 0.81. The results of the two t-tests for the class and the control group were as follows: For the class $t=5.607^{***}$, 26 d.f., $P < .001$. For the control group, $t=1.203$ n.s., d.f.=26 $P > .20$. Therefore the change in the empathy scores of the class was found to be significant and the change of the empathy scores of the control was not found to be significant.

Tables 1 and 2 show initial and final empathy scores, change in empathy, A.C.E. scores, freshman grade point average, ordinal position and experience.

These results are similar to those that Watson (52) found when using the Dawe-Jones Test. The results also tend to agree with those found by the researchers participating in the child study program sponsored by the Institute for Child Study of the University of Maryland (3).

n.s. = non significant

* = significant

Table 1. Empathy scores for class at beginning and end of semester, with gain in empathy.

Girl #	Total A.C.E. (Percentile)	G.P.A.	Ordinal Position	Experiences (No. of)	Before	Empathy Score After	Change
1	70	2.053	Only	4	37	43	6
2	20	1.860	Middle	1	29	36	7
3	30	2.688	Only	2	36	41	5
4	58	1.981	Youngest	2	39	40	1
5	45	2.651	Oldest	1	35	43	8
6	5	1.750	Youngest	1	31	39	8
8	80	2.844	Middle	2	34	48	14
9	75	2.816	Oldest	1	34	42	8
10	55	2.429	Middle	1	37	47	10
11	76	2.250	Middle	3	30	39	9
12	20	2.289	Youngest	4	38	36	-2
13	45	3.234	Middle	1	41	39	-2
14	55	2.500	Oldest	5	35	40	5
15	85	3.107	Oldest	2	41	46	5
16	80	2.083	Youngest	1	38	39	1
17	30	2.318	Oldest	1	39	45	6
18	45	2.372	Oldest	2	37	40	3
19	56	2.872	Youngest	1	37	38	1
20	40	1.400	Oldest	4	34	40	6
21	75	2.894	Only	2	35	39	4
22	50	2.822	Youngest	2	43	46	3
23	35	1.932	Youngest	5	38	36	-2
24	99	3.255	Oldest	3	41	44	3
25	40	2.190	Only	0	35	34	-1
26	55	2.061	Youngest	2	40	41	1
41	70	2.267	Youngest	3	33	38	5
55	60	2.404	Youngest	0	41	44	3
					mean 36.6	mean 48.5	
					Ninety-five	t=5.607***	
					Percent Con-	26 d.f., P < .001	
					fidence Inter-		
					val		
					35 ≤ μ ≤ 38		

n.s. = statistically nonsignificant
d.f. = degree of freedom

Table 2. Empathy scores for controls at beginning and end of semester, with gain in empathy.

Girl #	Total A.C.E. (Percentile)	G.P.A.	Ordinal Position	Experiences (No. of)	Empathy Score		Change	
					Before	After		
27	55	2.542	Youngest	3	35	39	4	
28	45	2.804	Middle	2	36	35	-1	
29	55	3.404	Middle	2	28	28	0	
30	70	3.298	Oldest	2	39	43	4	
31	33	2.625	Oldest	2	33	37	4	
32	65	2.980	Middle	1	41	38	-3	
33	75	2.766	Oldest	4	37	38	1	
34	65	2.543	Middle	1	36	33	-3	
35	70	1.849	Middle	2	30	34	4	
36	35	2.291	Only	1	27	32	5	
37	75	2.979	Only	2	33	32	-1	
38	60	3.255	Middle	4	29	36	7	
39	45	1.409	Oldest	4	31	37	6	
40	75	3.654	Oldest	3	33	31	-2	
42	75	2.438	Only	0	42	43	1	
43	35	1.609	Youngest	2	35	39	4	
44	80	2.583	Oldest	3	29	34	5	
45	33	1.500	Middle	0	32	26	-6	
46	95	3.702	Oldest	4	40	40	0	
47	25	2.089	Oldest	2	32	29	-3	
48	60	2.979	Oldest	2	36	39	3	
49	30	1.721	Youngest	2	36	32	-4	
50	75	2.417	Oldest	2	27	27	0	
51	40	2.395	Youngest	2	36	38	2	
52	90	2.545	Oldest	4	36	34	-2	
53	37	1.500	Oldest	1	36	32	-4	
54	60	2.404	Youngest	1	35	36	1	
					Mean	34.1	34.89	
					Ninety-five		t=1.20 n.s.	
					Percent Con-		26 d.f., P > .20	
					fidence Inter-			
					val			
					32.4 ≤ M ≤ 35.7			

n.s. = statistically nonsignificant

d.f. = degree of freedom

Meek (34), whose criteria of empathic behavior was one's ability to predict how another would answer a test or rank himself as to personality characteristics, found that after instruction empathy increased significantly on one type of test and did not increase significantly when a different test was used for measurement of empathy change. Walters (51) found when investigating change in attitude after a college child development course that the class changed significantly more than the control on the Wiley Child Guidance Survey, but not on the Shoben Parent Attitude Survey. The results of Meek (34) and Walters (5) point up that empathy or attitude improvement is dependent upon the criteria used for the measurement of empathy.

Marshall (33) found that classroom teaching modified the attitudes of individuals toward guidance of children but did not produce any change in the mean attitude scores of students enrolled in the course.

It is quite possible that classroom teaching does increase the empathy students have for children and does change attitudes students have toward child guidance. This change is probably in many cases gradual and will show itself first in situations similar to those in which the students have observed children. Perhaps some tests such as the Dawe-Jones present more situations which give opportunity to show understanding as a result of instruction than do others.

Watson (52) stated in her thesis that differences in empathy tended to level out after instruction. In the present study there was a difference of fourteen points between the highest and lowest scoring person before and after instruction, (29-43 beginning of semester, 34-48 end of semester.) In the present study there seemed to be improvement regardless of initial empathy.

The Relation of A.C.E. Scores, Freshman Grade Point Average, Experience, and Ordinal Position to Empathy

No significant relation was found between initial empathy scores and A.C.E. scores ($r = .180$ n.s., $p = > .10$), freshman grade point average ($r = .215$ n.s., $p = > .05$), number of experiences with children ($F = .50$ n.s., $p = > .50$) or ordinal position ($F = 1.73$ n.s., $p = > .10$).

A.C.E. scores were not found to be related to initial empathy by Walters (51), when using the Child Guidance Survey, but were found to be significantly related to initial attitudes when using the Parent Attitude Survey. Walters found no difference in initial attitude as related to freshman grade point average.

Loban (30) found that size of family and ordinal position were not related to the empathy of adolescents. Walters (51) found no relationship between ordinal position and child guidance attitudes. According to Walters size of family (2 or less compared to more than 2) was not significant on the Parent Attitude Survey but was significant at the five per cent level on the Wiley Child Guidance Survey. Children from smaller families were found to have better attitudes toward child guidance.

Table 3. Simple linear correlations involving initial empathy score, gain in empathy score, A.C.E. percentile score, and freshman grade point average (G.P.A.). $n=27$

	Initial	Gain
A.C.E.	.180 n.s.	.399*
G.P.A.	.215 n.s.	.747***

* = statistically significant at 5% level

*** = statistically significant at 0.1% level

As shown in table 3 empathy gain, in this study was, found to be related significantly to the following: A.C.E. scores ($r = .399^*$, $p = < .05$) and freshman grade point average ($r = .747^{***}$, $p = < .001$). Thus, the better students tended to gain more in their empathy for children. Walters (51) reported that changes of experimental and control groups in his study were significant irrespective of scholastic aptitude or grade point average.

As shown in table 4, no relationship was found between empathy gain and number of out-of-the-home experiences students had had with children ($F = .64$, $p = > .05$).

Table 4. Effect of out-of-the-home experiences with children on gain in empathy during one semester in class.

	Number of Experiences					
	0	1	2	3	4	5
	-1	7	5	9	6	5
	3	8	1	3	-2	-2
		8	14	5	6	
		8	5			
		10	3			
		-2	4			
		1	3			
		6	1			
		1				
Mean	1.0	5.2	4.5	5.7	3.3	1.5

$F(5,21) = 0.64$ n.s., $P > .50$

n.s. = statistically nonsignificant

A significant difference was found, at the .05 level, between the empathy gains (table 5) of older and middle children when compared with only and younger children.

Table 5. Effect of ordinal position in family on gain in empathy during one semester in class.

Gain in Empathy			
Only Child	Youngest	Middle	Oldest
6	1	7	8
5	8	14	8
4	-2	10	5
-1	1	9	5
	1	-2	6
	3		3
	-2		6
	1		3
	5		
	3		
mean 3.5	1.9	7.6	5.5

$F(3.23) = 3.46^*$, $P < .05$

* = statistically significant at 5% level.

Thus it could be postulated that those students who had previously observed and lived with children in their own home saw the need for training and thus were more receptive to what was taught. Perhaps, if more could have been known about the quality and length of time of the subjects' experiences, their experience also would have been related to empathy gain.

Discussion of Individual Pictures

As shown in table 6 certain pictures showed a more definite empathy change than did others.

Picture 16 showed a change of 20 points from the beginning to the end of the semester. The situation was that of a child in a swing who stated, "I don't want her to have a turn". Perhaps the reason this one showed so much change is because the situation occurs so frequently at the Child

Table 6. Change in score of class per picture.

Picture no.	Statement made by child.	Initial class score	Final class score	Change
3.	"I don't want to kiss Grandma goodbye."	51	52	1
5.	"I don't want to tie my shoes. Will you tie them for me?"	46	54	8
6.	"I hit him because I don't like him."	41	47	6
7.	"Look at the big mudpie I made."	63	70	7
8.	"Come here so I can give you a big kiss."	72	80	8
10.	"Listen to me now, I want to tell you something."	56	67	11
11.	"I only picked a few. I thought it was all right."	50	53	3
12.	"Tell her to go home. I don't want to play with her."	42	43	1
13.	"He's a crybaby, isn't he? <u>I</u> didn't cry."	48	44	-4
14.	"I don't want to go to bed. He doesn't have to go to bed yet."	40	47	7
15.	"I don't want to eat this."	52	63	11
16.	"I don't want her to have a turn."	33	53	20
17.	"The baby took my doll."	41	48	7
19.	"Don't spank me. I won't do it again."	43	57	14
20.	"Don't go out tonight. Stay home with me."	63	61	-2
21.	"Let's take the baby back. I don't want a new baby sister."	41	42	1
22.	"Can I saw too?"	60	66	6
24.	"I want to play my drum now."	39	41	2
25.	"He tried to take my wagon so I hit him."	46	53	7
28.	"The other girls won't play with me."	57	67	10

Development Laboratory.

Picture 19 in which the child said, "Don't spank me, I won't do it again," showed a change in score of 14 points. At the beginning of the semester 13 students were going to spank, 12 implied future spankings and 2 stated they would not spank the child. At the end of the semester 8 were going to spank the child, 8 implied future spankings and 11 said they would not spank the child. At the end of the semester the class members frequently said, "I wish I knew what he had done." One member of the control illustrated the traditional type of child rearing ideas with, "But I think this is the only way to discipline you. Then you will be sure and not do it again."

Picture 28 showed a change of 10 points. The situation involves a child who desires the companionship of her peer group and says, "The other girls won't play with me". At the first of the semester quite frequently the child was blamed. For example one class member said, "Maybe you aren't trying to play with them. Maybe you're being selfish and rude to them." At the end of the semester many of the class members answered similar to guidance methods observed at the child development laboratory. For example one member said, "If they were playing house, perhaps she could be a visitor and go knock on the door and visit them for a while." This could be contrasted to the control who answered at the end of the semester, "Did you make them mad at you or did you say something to them? Maybe that's it. Why don't you apologize if you did?"

The class showed a change of 10 in picture 10 where the child said, "Listen to me now, I want to tell you something." One control again showed the traditional ideas of child rearing with the comment, "Most children do learn at an early age that we don't interrupt someone else, no matter who

it is."

It is interesting to note that on picture 8 "Come here so I can give you a big kiss," at the beginning of the semester 7 class members rejected or delayed the child. At the end of the semester all except one member were acceptant of the child.

Two pictures lost in total score. One was picture 13 (loss -4), "He's a crybaby isn't he -- I didn't cry." Perhaps the class members found it hard to have empathy for both children and felt sorry for the child who was crying.

The other picture was number 20 (loss -2). The child says, "Don't go out tonight. Stay home with me." Class members had little opportunity to observe better ways of handling this type of situation. Many reassured the child with the baby sitter rather than with promise of future parental attention.

Other pictures in which there was little change were those involving Grandma, neighbor's flowers, a new baby, and a drum when adults were sleepy. The students did not get a chance at the Child Development Laboratory to observe how these situations could be handled.

Picture 12 showed a gain of only one score. A child is at the door wishing to play with another child who says, "Tell her to go home, I don't want to play with her." Students possibly were distracted by and felt sorry for the child at the door.

At the end of the semester it became apparent that the class member's answers were shorter than the control's answers and although they did not always exhibit a great deal of empathy they did not show the extreme lack of empathy that some of the control group did.

One control answered, the statement "Let's take the baby back, I don't want a new baby sister.", with "Now, you just wait, and I'll bet you'll wish you hadn't said that."

One control answered, "The baby took my doll.", with "But you're getting too old to play with dolls anyhow." Another control answered, "I don't want to kiss Grandma goodbye.", with "Don't you love Grandmother anymore?"

Watson (53) using the Dawe-Jones test before and after instruction stated that the lowest scoring pictures showed the greatest improvement. This was not found to be consistently true in the present study, although picture 16 was an example of the picture which had a low score (average score of 33) changing the most (to average score of 53).

Observed Behavior of the Highest and Lowest Scoring Person

The running observational records of the subjects who scored highest and lowest on the written test were classified by contacts the students had with children. A contact refers to a situation in which the subject talked with or physically helped or interfered with a child. Each contact was scored 1, 2, or 3 with respect to empathy. If the subject rejected the child's needs her contact was scored 1. If she accepted the child's needs her contact was scored 3 and if she neither accepted nor rejected the needs of the child her contact was scored 2.

The subject who scored lowest (29) on the projective test the first time it was given scored next to the lowest (36) on the projective test the second time it was given but improved 7 points during the semester. This same student had 13 contacts with the older group of children. Out of

a maximum possible score of 39 she scored 29 (74%) with regard to the degree of empathy expressed when working with these children. Two weeks later when working with the younger group of children she had 19 scored contacts and out of a possible score of 57 she scored 46 (80.7%) with regard to the degree of empathy expressed. The lowest scoring subject was an elementary education major who had an A.C.E. score of 20 and a freshman grade point average of 1.860. Her only previous experience with children was baby sitting.

The subject who scored highest (43) on the projective test at the beginning of the year scored next to the highest (46) at the end of the year. The highest scoring student had 15 contacts when she was observed with the younger children. Out of a possible score of 45 she scored 38 (84%) with these children. When two weeks later she was observed with the older children she had 19 contacts and out of a possible score of 57 she scored 49 (85%). The highest scoring student was a nursing major who had an A.C.E. of 50 and a freshman grade point average of 2.822. Her previous experiences with children included baby sitting, teaching Bible School and caring for a five year old brother.

It is interesting to note that both students increased the number of contacts they had with children during these two weeks. There was not a consistent tendency to have more empathy with either age group and improvement over the two week period was slight. The observed behavior of the girls revealed that the girl scoring highest on the projective empathy test scored slightly higher on observed empathic behavior than did the girl scoring lowest on the projective test.

Table 7. Class - type experience.

	Experience Yes	Experience No	Baby Sitter	Sunday School Teacher	Camp Counselor	Bible School Teacher	Nursery Teacher	Swimming Instructor	Mother	Nurse for Children	Play- ground Work	No.
1	X		X	X	X	X						4
2	X		X									1
3	X		X			X						2
4	X		X	X								2
5	X			X								1
6	X							X				1
8	X		X		X							2
9	X					X						1
10	X		X									1
11	X		X			X		X				3
12	X		X	X	X	X						4
13	X			X								1
14	X		X	X	X	X	X					5
15	X		X						X			2
16	X		X									1
17	X		X									1
18	X		X							X		2
19	X		X									1
20	X		X	X	X	X						4
21	X				X	X						2
22	X		X			X						2
23	X		X	X	X	X					X	5
24	X		X	X		X						3
25		X										0
26	X				X	X						2
41	X		X	X		X						3
55		X										0
Total			19	10	8	13	1	2	1	1	1	

Table 8. Control - type experience.

	Experience Yes	Experience No	Baby Sitter	Sunday School Teacher	Camp Counselor	Bible School Teacher	Nursery Teacher	Swimming Instructor	Public Library	Resident Asst.	Girl Scouts	No.
27	X		X	X		X						3
28	X			X		X						2
29	X		X			X						2
30	X					X	X					2
31	X		X	X								2
32	X			X								1
33	X		X	X	X	X						4
34	X		X									1
35	X					X			X			2
36	X					X						1
37	X			X		X						2
38	X		X	X	X	X				X		4
39	X		X	X	X						X	4
40	X		X		X	X						3
42		X								X		0
43	X		X	X								2
44	X		X	X		X						3
45		X										0
46	X		X	X	X	X						4
47	X		X			X						2
48	X		X		X							2
49	X		X			X						2
50	X				X			X				2
51	X		X			X						2
52	X		X	X		X		X				4
53	X		X									1
54	X		X									1
Total			18	12	7	16	1	2	1	2	1	

CHARACTERISTICS OF GROUPS

Class

Out of the 27 sophomore women in the class twenty-four were home economics majors and three were elementary education majors with home economics interests. Twenty-four of the women were single and the remaining three were married. One student had an eleven month old child. Eight members of the class were the oldest in ordinal position, five were middle children, ten were the youngest and four were only children. Number of siblings ranged from none to five. All except two members of the class had had previous experience with children. Experience refers to types and number of experiences the subjects had previously had. No attempt was made in this study to assess length of experience. Table 7 shows that types of experiences class members had outside of the home from most common to least common were: baby sitting, teaching Bible School, teaching Sunday School, camp counselor, swimming instructor, mother, nurse, and playground work. The freshman grade point averages of the girls ranged from 1.400 to 3.255 and the A.C.E. scores ranged from 5 to 99.

Control

All members of the control group were home economics majors. One of the women was married and had a two weeks old boy when the test was given the second time. Twelve members of the control were the oldest in ordinal position, seven were middle children, five were the youngest and three were only children. The number of siblings ranged from none to six. All except two members of the control group had had previous experience with children.

Table 8 shows that types of experiences the control group had outside of the home from most common to least common were: baby sitting, Bible School teacher, camp counselor, swimming teacher and resident assistant, and public library and girl scout work. The freshman grade point averages of the girls ranged from 1.409 to 3.702 and the A.C.E. scores ranged from 30 to 95.

LIMITATIONS OF STUDY

Since it was necessary to interview each student individually the total number of students had to be limited to 27 students in the control and 27 students in the class. If larger groups of students had been tested the conclusions might have been more reliable.

This study measured empathy as exhibited on the Dawe-Jones Test. Although the highest and lowest scoring persons were observed at the child development laboratory, very little data were collected on the relation between empathy test scores and actual behavior.

The possibility existed that students might tend to answer as they thought they should. The use of a tape recorder allowed quick spontaneous answers and thus increased the chance of the student answering as he would in a real life situation. Also the observations showed that the students testing highest and lowest remained in their respective positions in actual behavior. The finding that older and middle children increased more in empathy than did younger and only children would suggest that the changes are not just the result of trying to please the interviewer. It would seem that ordinal position would not be related to ability to give desired answers. Ordinal position could, however, affect the amount of experience a student had previously had with children and consequently affect his grasp of the need for better understanding of children.

CONCLUSIONS

It would be reasonable to conclude from this study that empathy as measured by the Dawe-Jones Test can be acquired and that the empathy measured by this test will improve as knowledge about children and what they are like increases.

Initial empathy was found by this study not to be related to A.C.E. scores, freshman grade point averages, ordinal position or previous experience with children. The better students as shown by A.C.E. scores and freshman grade point averages increased more in empathy than did the poorer students and older and middle children increased more in empathy than did younger and only children.

Test situations most likely to show an increase in score were those similar to situations which the students had frequently observed in the Child Development Laboratory. Students were found to be somewhat confused by pictures depicting more than one child in situations where the needs were in conflict.

The observed behavior of the girls revealed that the student scoring highest on the projective empathy test also scored higher on observed behavior than did the student scoring lowest on the projective test.

SUGGESTIONS FOR FURTHER RESEARCH

A group of child development majors could be followed through their three years of study to see if they continue to improve in empathy for children as they progress in the program.

Another analysis which could prove informative would be to use detailed questionnaires to find if people who are low or high in empathy both before

and after instruction have characteristics in common or if they represent many fields of interest and abilities.

A third possibility would be to study ordinal position as related to initial empathy or empathy change. Possibly it is not the ordinal position which affects the empathy change adults have for children but is the age span between a child and the younger children in the home. The student who has cared for younger brothers and sisters of preschool age probably feels a greater need for studying about children than does the student who has never cared for younger children.

The empathy of college women as shown by the Dawe-Jones Test compared with the empathy of their mothers as shown by the Dawe-Jones Test would also be worthy of investigation.

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APPENDIX

High scoring student working with younger children.

Number of Different Contacts	Score	Description of Contact
1.	2	Y was standing beside the gate. Skye closed the gate. Y said, "It's shut now."
2.	2	The gate came open again. Skye closed it again. Y said, "It came open."
3.	3	(In Creative Arts) Y said to Mark, "Do you want to paint a little more? Shall we put an apron on? Do you want to put an apron on, Mark? Let's keep the flour off that red shirt. Can you find the arm holes? (Mark would not let her put the apron on him.) "You don't need one. Okay. Be real careful and don't get it on your shirt."
4.	2	(Child said, "I'm making some big cookies for you.") Y said, "Whoo!" Then as he lifted it off the table to give it to her she said, "Let's keep it on the table nice and flat."
5.	3	(Child said, "My hand won't work on that dough.") Y said, "What? Your hands won't." She then left to get sticks for them to use on the dough.
6.	3	"Here is a stick Mark - here's one for you too, Peter." Peter said, "I don't want a stick." Y said, "Okay. You can lay it there if you don't want to use it."
7.	3	Timmy came to Y and rubbed against her. Y put her arm around him.
8.	3	Peter's apron was slipping off. Y saw it and pulled it up. Peter turned to Y and said, "I'm making a pancake." Y said, "Do you watch your mother make pancakes at home?" Peter said, "Yes, she makes good ones."
9.	3	Peter needed flour because his hands were sticky. Y said, "Here's some flour. Hold your hands over the table. Do you need some too, Kellee? There - now you're both fixed." (Y poured flour on their hands and then helped Peter wash his hands.)

Number of Different Contacts	Score	Description of Contact
10.	3	Y brought Timmy downstairs first because Timmy was ready and eager. She brought him outside saying, "I just brought him out because he was so restless." <u>Then</u> Y went in to get her own coat.
11.	3	Timmy came out and said, "I wanna bike." Y said, "I see one nobody's riding."
12.	2	Timmy came looking for his bike. Y said, "There's a big one over there." Timmy looked and decided it wasn't his and went on.
13.	2	Timmy again was looking for "his" bike. Y said, "Here's one just your size." Timmy went the other way.
14.	3	Skye was stuck on the jungle gym. Y said, "Having troubles?" Y helped her down.
15.	1	Mark was eating snow. Y said, "Mark - the snow is dirty - keep it out of your mouth."
<hr/>		
Total Contacts Scored	Total Score	
15	38	(Maximum possible 45) = 84%

High scoring student working with older children.

Number of Different Contacts	Score	Description of Contact
1.	2	Cyd said, "Mrs. Smith won't like that will she?" Y said, "What?" Cyd picked up the leaves and put them on the bench where students sit. Y said, "Why don't you leave the leaves on the ground?" Cyd said, "No."
2.	3	Cyd picked up the leaves and put them on the teeter totter. Cyd said, "It won't come down." Y said, "Aren't they heavy enough?"
3.	3	Timmy said, "I want to teeter totter." Y said, "You want to teeter?" (Got up to help.) Timmy said, "No." Y stopped. Timmy said, "Sit down." Y said, "You want me to sit down?" (and then sat down)
4.	2	Timmy started to stop Gena in the swing. Y said "Wait until she stops Timmy."
5.	3	Timmy was bouncing the teeter totter and got under it. Y reached up to keep the teeter totter from hitting him on the head.
6.	3	Timmy was on one end and Steve Bartow started to get on. (teeter totter) Y held the teeter totter so Steve could get on. Steve said, "No." and started to crawl from the other end. Then Steve had trouble so Y helped him.
7.	3	Timmy started to lose his balance so Y started to help him. He regained it and Y sat back down.
8.	3	Steve was on one end of the teeter totter and Timmy was on the other. Steve jumped off the teeter totter and the teeter totter banged down. Y immediately jumped to help Timmy and said, "Steve, next time tell him when you want off."
9.	3	Timmy is still on the teeter totter. Cyd got on and off. Y steadied the teeter totter so Timmy didn't bump.
10.	2	Steve came back to get on the teeter totter and Y steadied it.

Number of Different Contacts	Score	Description of Contact
11.	2	Steve began to get off the teeter totter. Y watched closely and started to get up. Steve got back on. Then Steve got off of the teeter totter and it went bang. Y got up to help.
12.	2	Katy was on the teeter totter. Y started to get up to help. Then the teacher asked Gena to let Katy off.
13.	2	Sue said, "I want Kellee to play with me." Y said, "Why don't you ask her to play with you."
14.		Steve got into the swing where Hugh was. Y said, "Steve, I think Hugh was there first. Hugh was there first, you come back later; you can ride the trike now." Steve rode away.
15.	2	Hugh was watching swinging and said, "Callee can't push." Y said, "She is doing a real good job."
16.	3	Hugh said, "Give me the swing." Y said, "You want me to push you up high? Okay." Y pushed him.
17.	3	Hugh said, "Bike." (He wanted to ride the one Steve had been riding.) Y said, "You can ride it." (encouraging)
18.	3	Child said, "Here teacher, clean my apron." Y said, "Okay. You will be next."
19.	2	Cyd had paint on her face. Y said, "Looks like you missed your face. Cyd, did you wash your face?" Cyd went to wash her face. Cyd said, "That is my towel." Y said, "Are you sure?" (friendly smile)

Total Contacts Scored	Total Score
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19	49	(Maximum possible 57) = 85%
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Low scoring student working with older children.

Number of Different Contacts	Score	Description of Contact
1.	2	Gena started to get out of a barrel. (Barrel was upright and Gena was shorter or at least as short as it.) X said, "Can you get out?" Gena kept trying. Pretty soon the barrel fell over and then X got up to help the child. (Actually there were 2 in it.)
2.	1	Two children were in the other barrel. They started to try to get out. X watched them. Then the barrel fell over. X said, "Ooh!" She then got up and helped them out.
3.	1	Katy (who was in the second barrel when it fell) said, "I want back in." Katy tried to get in and it started to tip. Katy said, "Help me!" X said, "You can get in. You made it before. Step on the little barrel." Katy whined a little and then left.
4.	3	The barrel was sitting up and a child was outside of it. The child knocked the barrel over. X said, "Ooh! Bang!"
5.	2	Scott said, "I am Roy Rogers King of the Cowboys." X said, "Oh you are."
6.	2	(Children were coming in from outdoors.) X said to Beth, "Let's take off your coat. Let's take off your coat." To X Beth said something which was not audible. X said, "Oh." and smiled.
7.	3	Steve pointed to some plants, "But this one isn't growing like that one." X said, "I bet it will soon."
8.	3	Glenn said, "Tie my shoe." X said, "What? Okay."
9.	2	Sue said, "Hey, Hey." (The dresser drawer was stuck.) X helped Sue fix it and said nothing.
10.	2	Record player was at the end of a record. Child said, "Turn this off." X said, "You want it off? Okay."

Number of Different Contacts	Score	Description of Contact
11.	2	Beth said, "?" (sounded like through) X said, "Okay.", and took the picture. Beth said something in a disturbed tone of voice and waved brush. X said, "Oh, I thought you were finished. Do you want to paint some more?"
12.	3	Beth wanted to go outside. X said, "Are they supposed to go out?" (answer was yes.) X said, "Okay, I guess you can."
13.	3	X said, "You can put it on okay, can't you, Beth?" Beth did okay. She had trouble with her hat so X tied it.

Total Contacts Scored	Total Score
13	29

(Maximum possible 39) = 74%

Low scoring student working with younger children.

Number of Different Contacts	Score	Description of Contacts
1.	3	The children were blowing bubbles. X helped Skye and said, "You can hold it and blow yourself, Skye."
2.	2	Skye dropped the bubble pipe. X said, "Done now Skye?"
3.	3	Tommy gave the pipe to X. Tommy said, "I don't want it." X said, "Too soapy?" X wiped off Tommy's mouth. X said, "Ooh - Tommy, what big ones."
4.	2	X said, "Get it in?" (Meaning soap in pipe.) Tommy said, "Wipe my hands." X said "Okay, you take this and wipe them." (she gave him a towel)
5.	3	X said "There now - ooh." (laughed as it slipped) Tommy laughed too.
6.	2	Tommy got soap in his eye. X said, "Blink it fast - there - feel better?"
7.	2	Tommy pointed to pipe, "Why blow it through here?" "Looks like bubbles." X said, "Bubbles don't really come out of there. It just looks like it comes out of there."
8.	2	X was still watching Tommy. X, "Whee - more big ones. Soapy, soapy, soapy." Tommy said, "You blow it." X said, "Since you had it in your mouth, I better not." Tommy said, "This one." X said, "I think someone else used that one, too."
9.	3	X said, "Oh you caught it on your hand."
10.	3	Tommy blew big bubbles. X said, "Oh good. Woop - it broke." X said, "That is a lot of them."
11.	3	X said, "Look at Hugh's bubbles." How do they taste, Hugh?"

Number of Different Contacts	Score	Description of Contact
12.	3	X said, "That's a big one. Look at the windows on the bubbles. Do you see them?"
13.	2	Tommy said, "I am all through." X said, "You can go wash then."
14.	---	X talked to Tommy who was crying. (Unable to hear the conversation so not scored.)
15.	2	Tim and Peter were fighting over a tractor. X said, "There is another one, Peter." She then pulled the boys apart.
16.	2	X said, "Are you through Peter?" Then she said, "If you are not through put your apron on." "Why did you take your apron off? Are you through Timmy? Peter, leave your apron on if you are not through."
17.	1	Peter said, "I am cleaning the tractor off." X said, "My, my, my we really got mud in here." (cleaning the tractor off)
18.	2	Peter said, "I am getting this off." X said, "Just put it there."
19.	3	Timmy said, "That is a tractor." X said, "Have you ever seen a real tractor?" X said, "My Grandpa - (more conversation but could not hear because a noisy truck came through).
20.	3	(putting dough away) X said, "Do you want to put it in here, Timmy?" Peter said, "I want to do it." X said, "You can put it on the shelf." (Peter put the dough in the cupboard.)

Total
Contacts
Scored

Total
Score

19

46

(Maximum possible 57) = 80.7%

Number _____

Check Sheet

How many brothers do you have? What are their ages?

How many sisters do you have? What are their ages?

What is your sibling position (check one)

Oldest Youngest Middle Child Other (Please write in)

Have you had experience working with children? Yes No

If yes, please check appropriate squares and write in ages of children.

TYPES OF EXPERIENCE

AGES OF CHILDREN

Camp Counselor

Sunday School Teacher

Baby Sitter

Nursery School Teacher

Bible School Teacher

Other (Please List)

What is your marital status?

Married

Single

Do you have children?

Yes

No

How many boys?

What are their ages?

How many girls?

What are their ages?

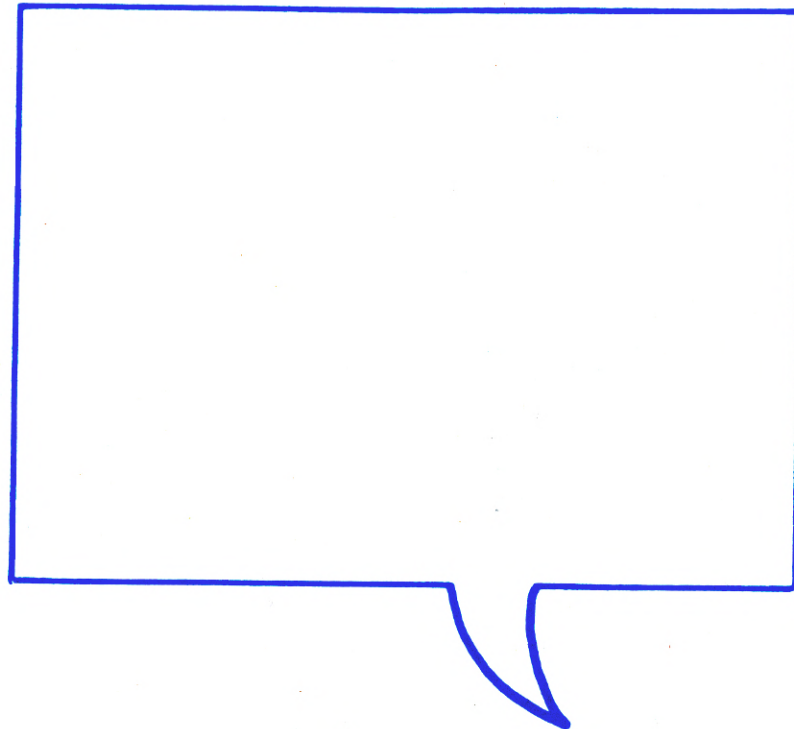
Dawe-Jones Empathy Test, University of Wisconsin
Omit # 1, 2, 4, 9, 18, 23, 26, and 27.

1

Will you
play a game
with me?

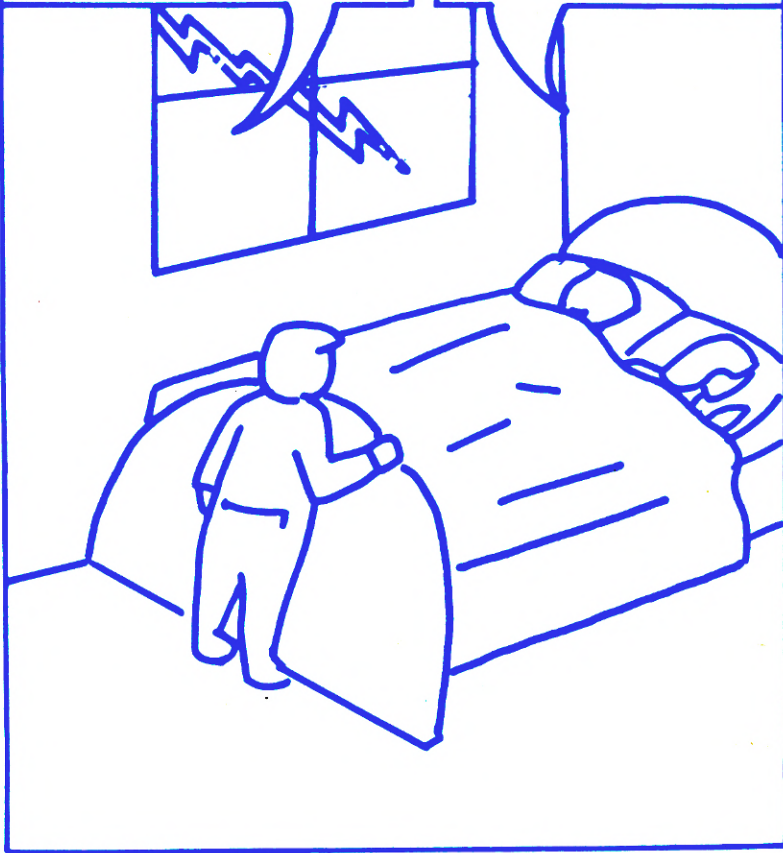


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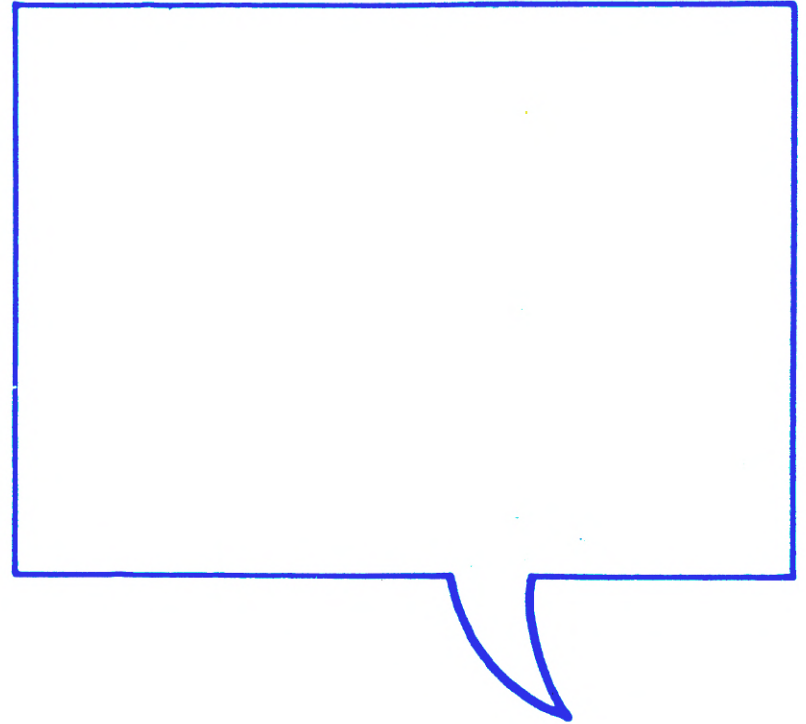


2

Let me get
in bed with
you. I'm
scared.



2

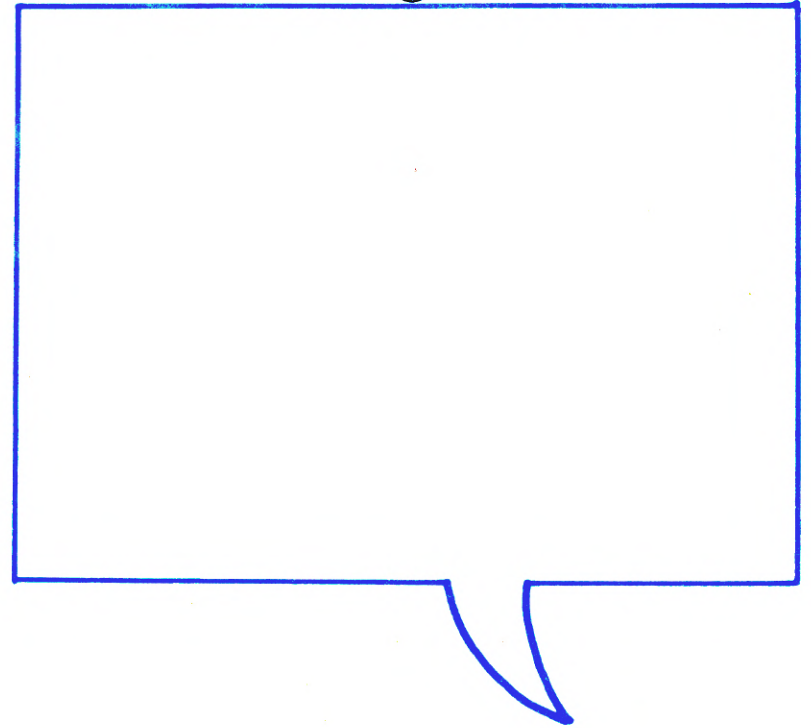


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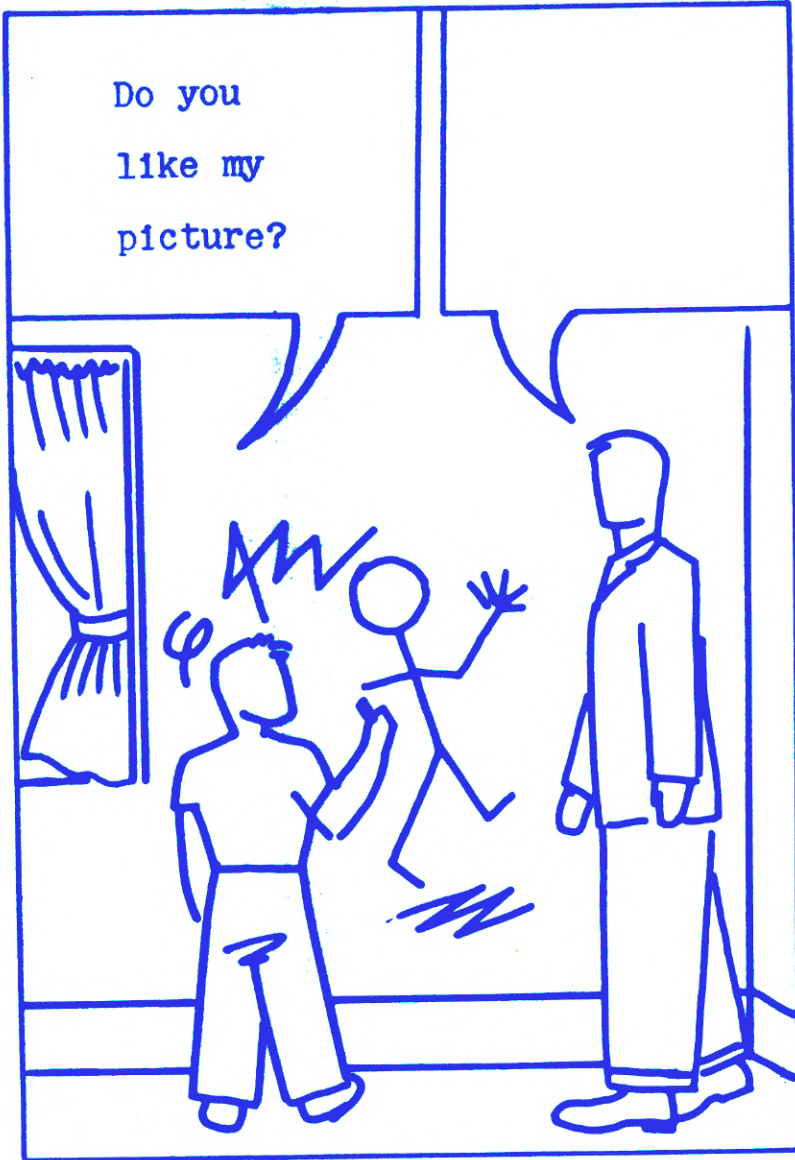
I don't want
to kiss grandma
goodbye.



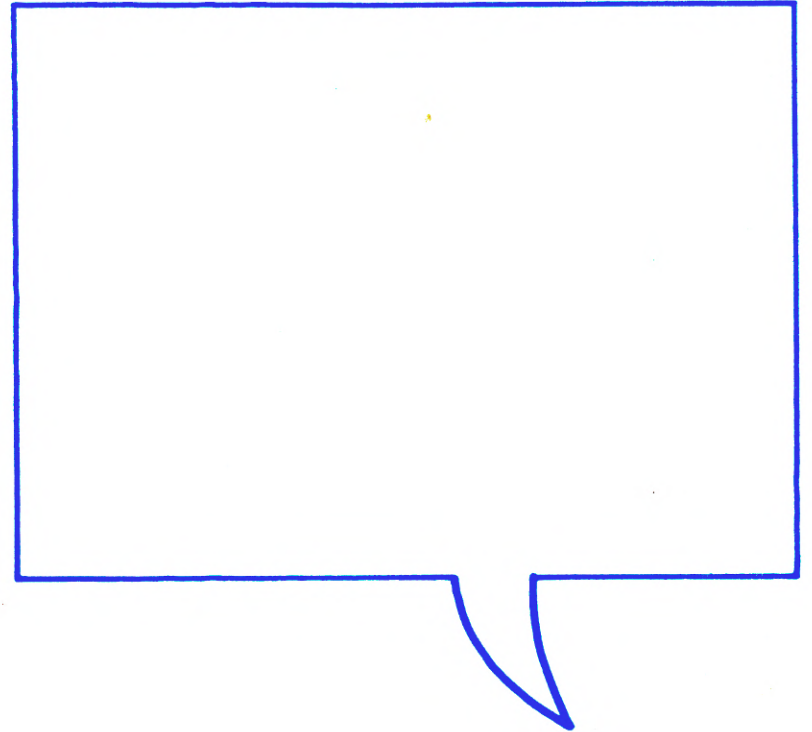
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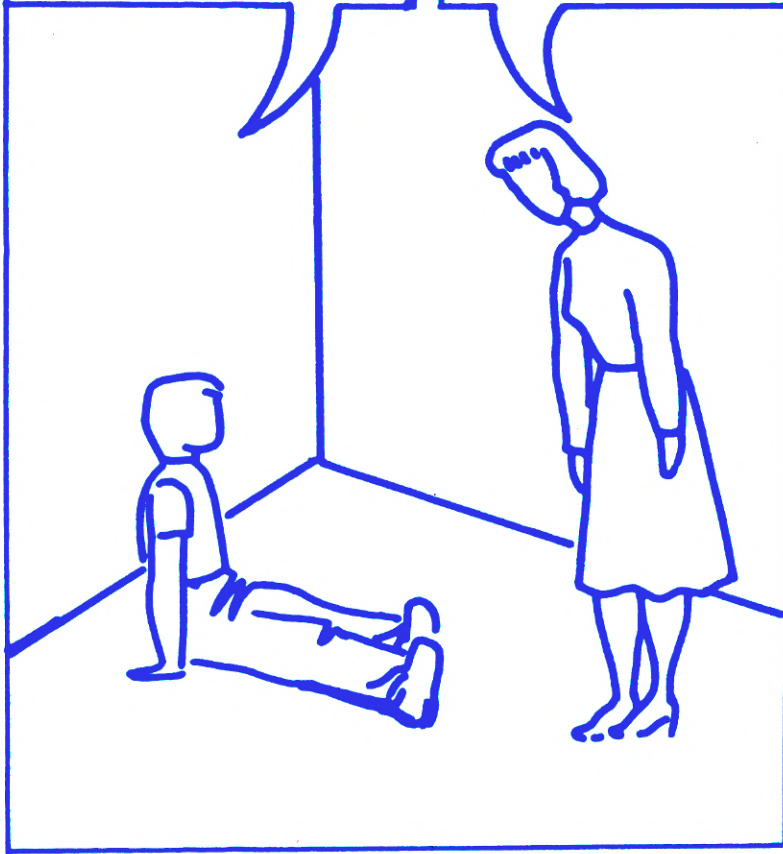


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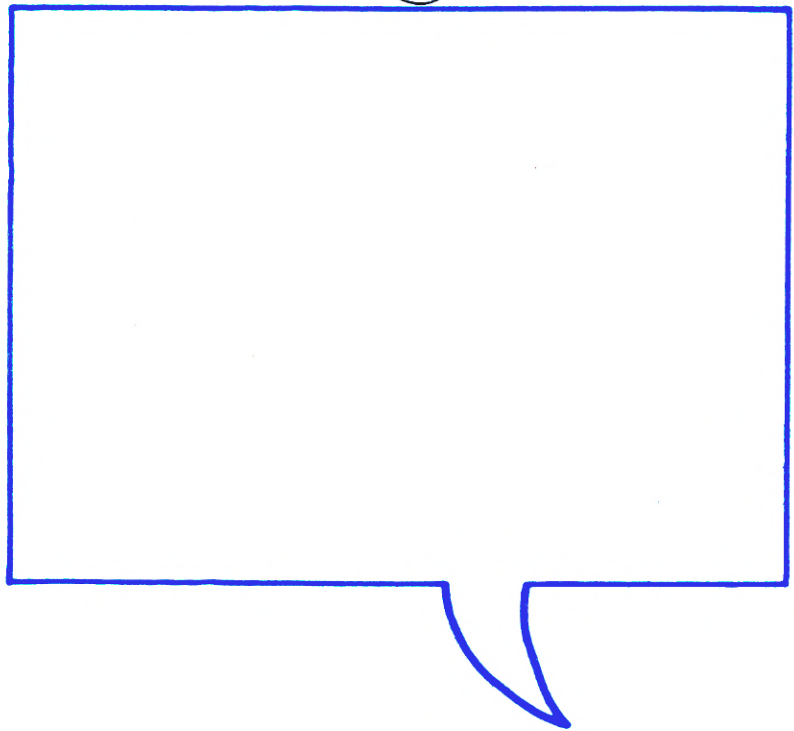


5

I don't want
to tie my shoes.
Will you tie
them for me?

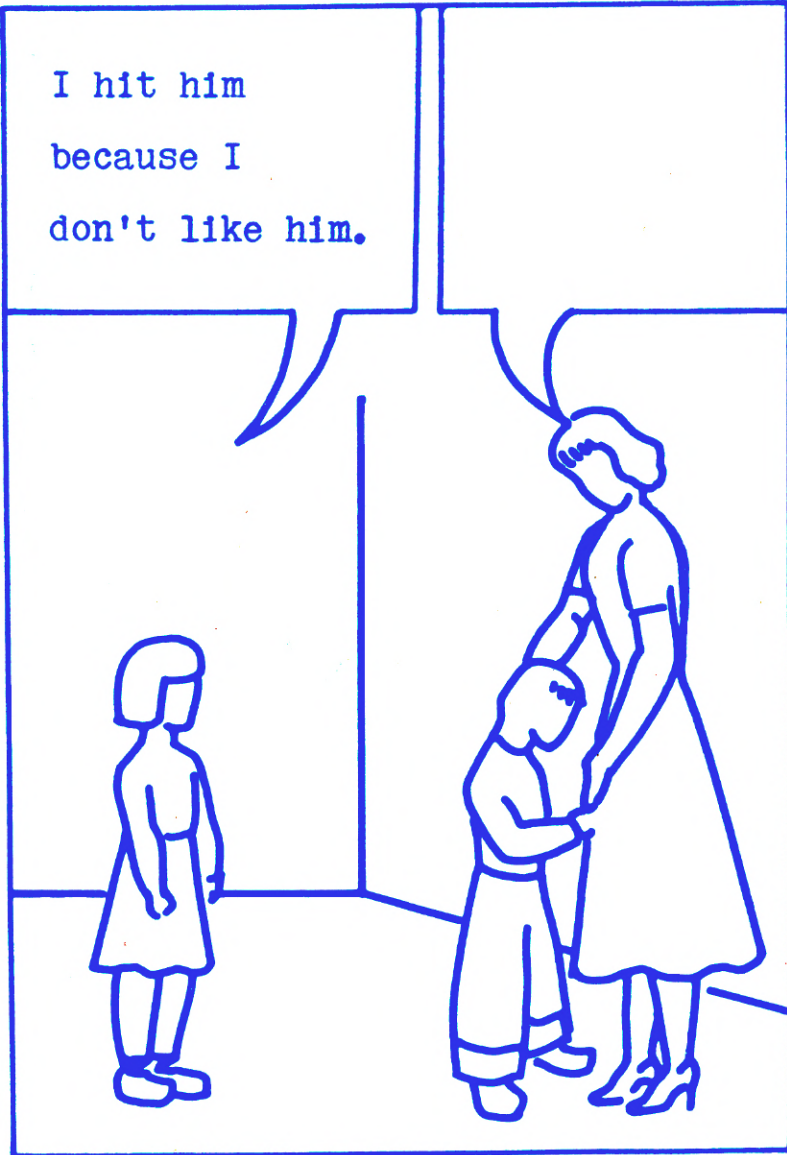


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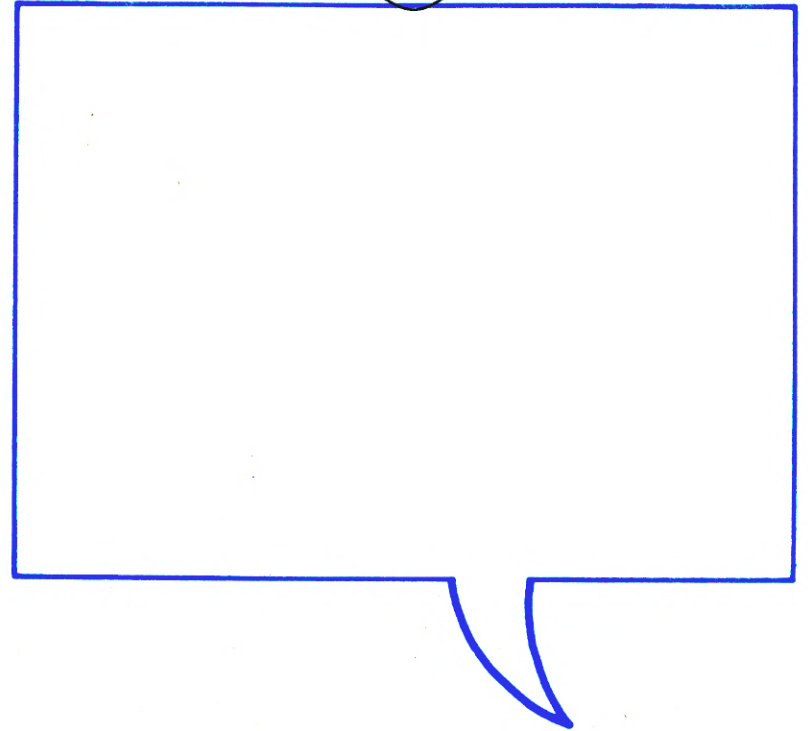


6

I hit him
because I
don't like him.

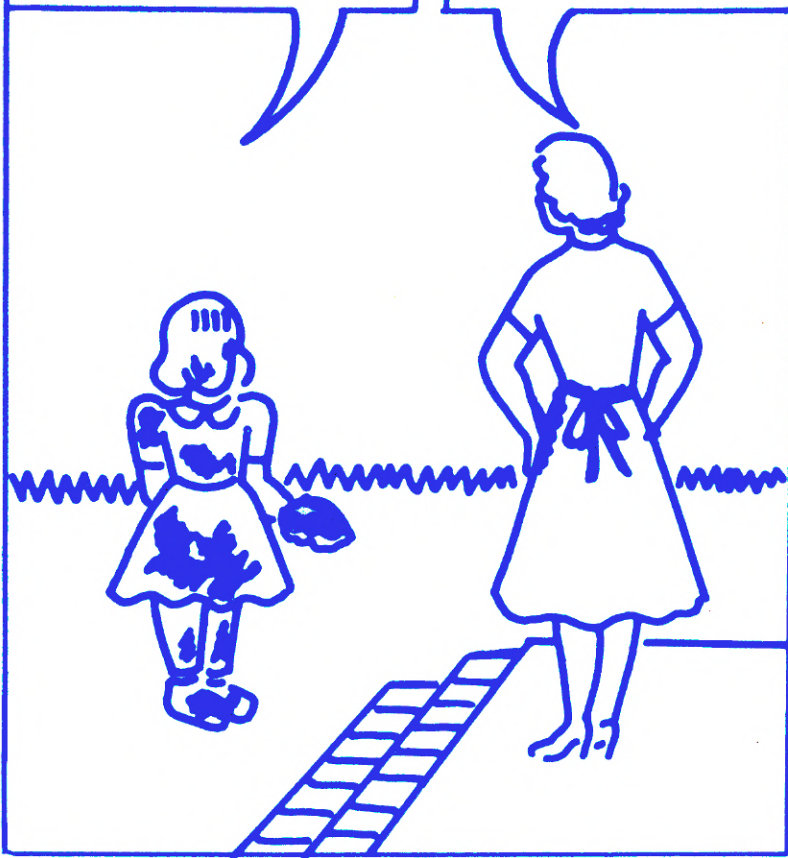


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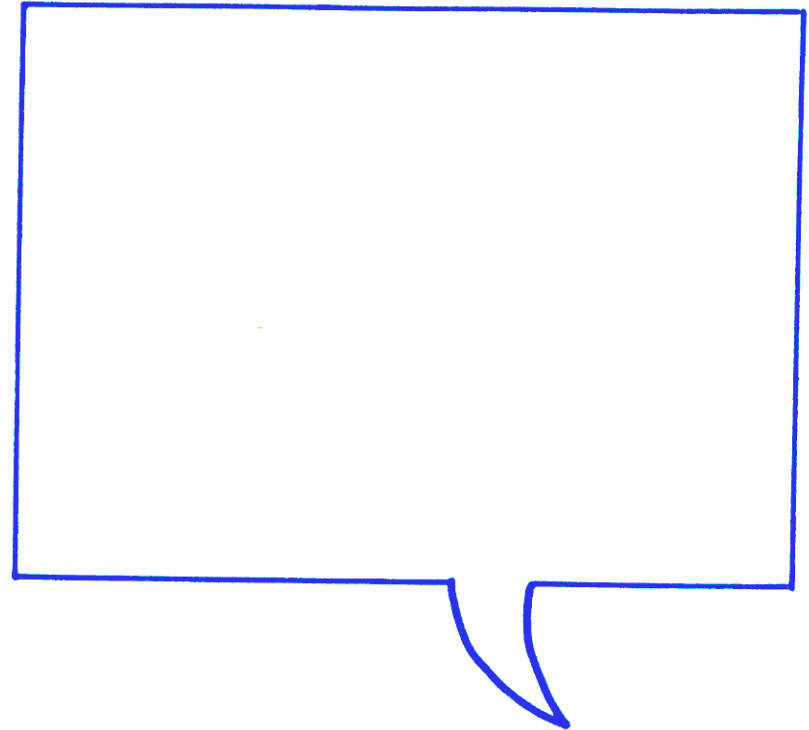


7

Look at the
big mudpie
I made.

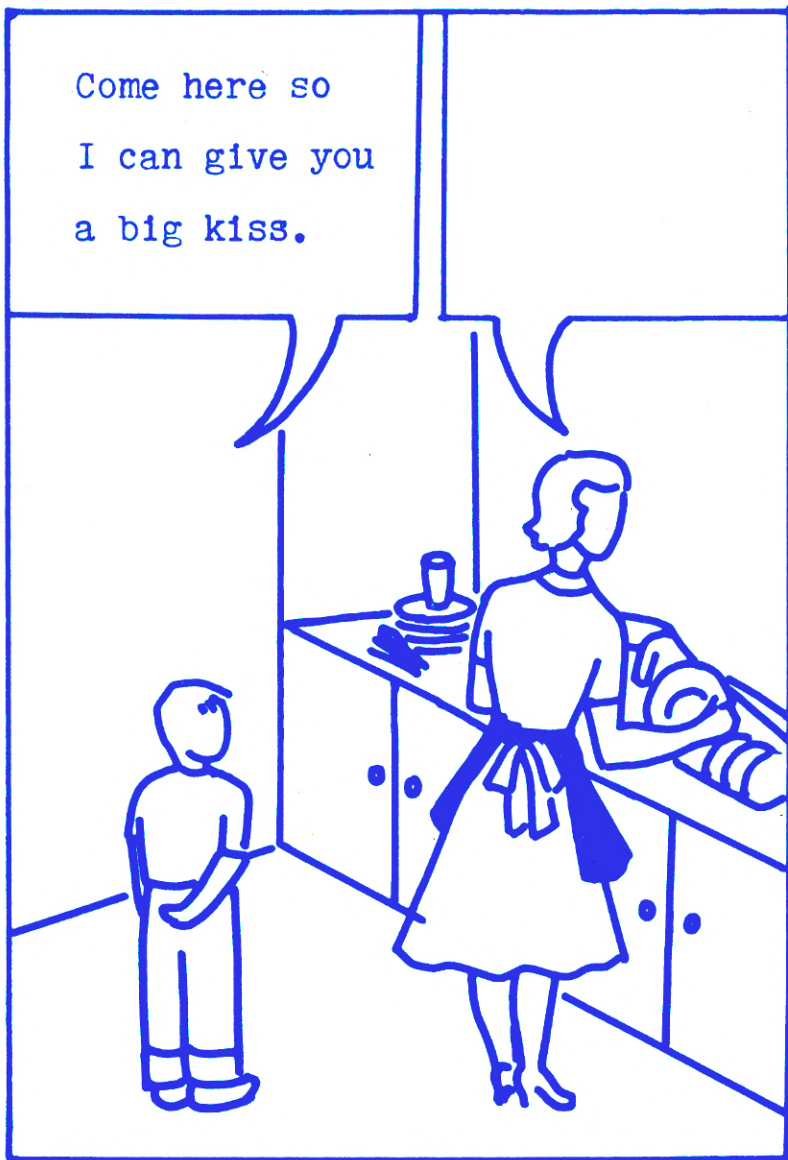


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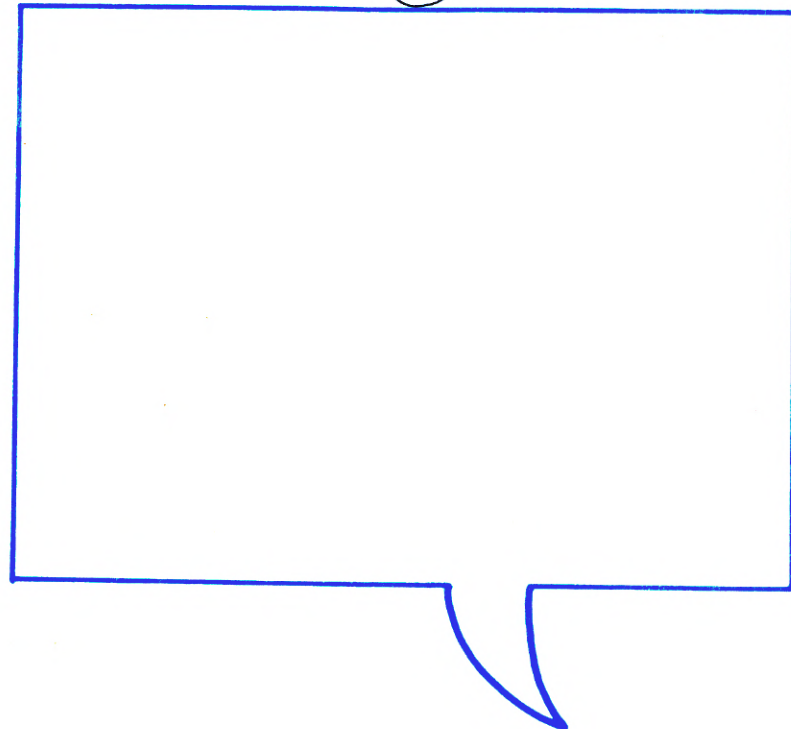


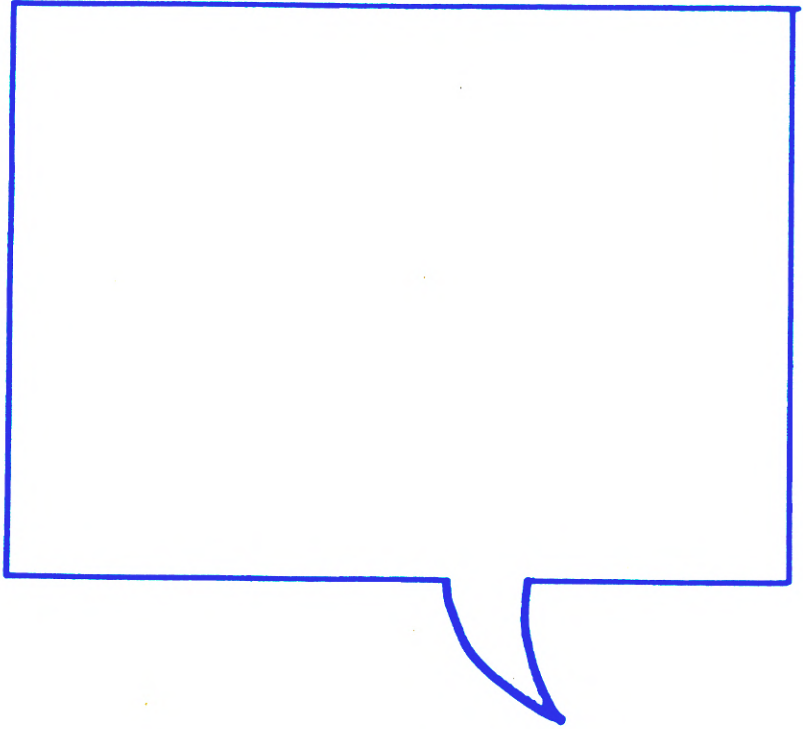
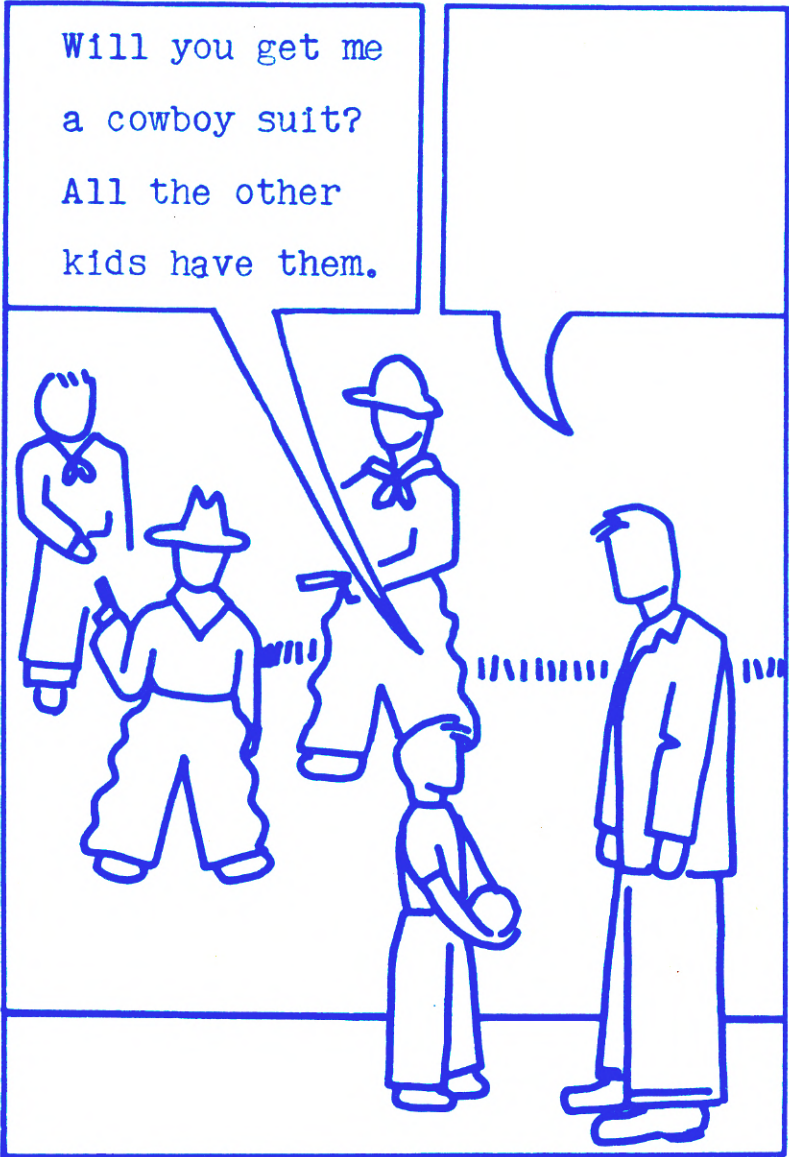
8

Come here so
I can give you
a big kiss.



8



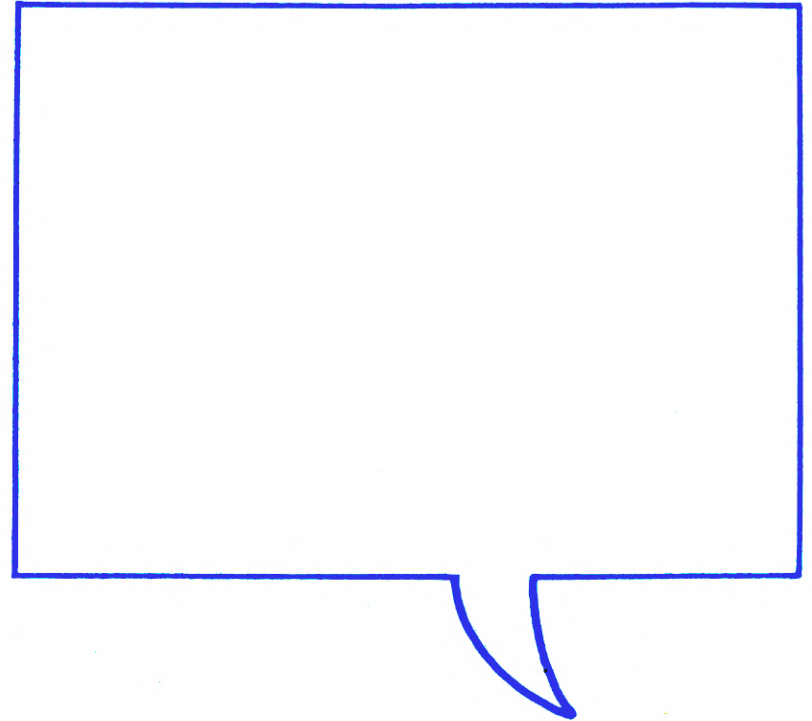


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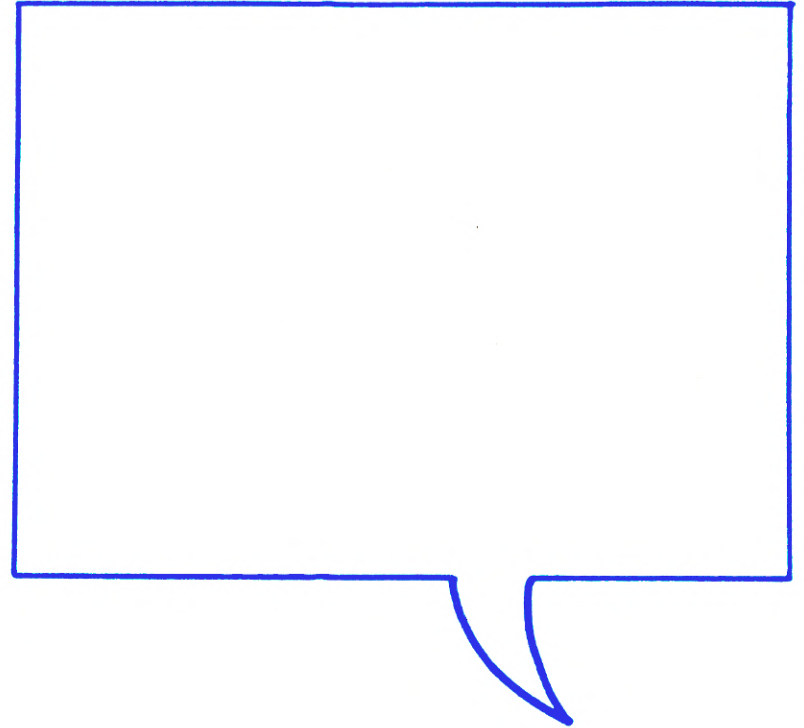
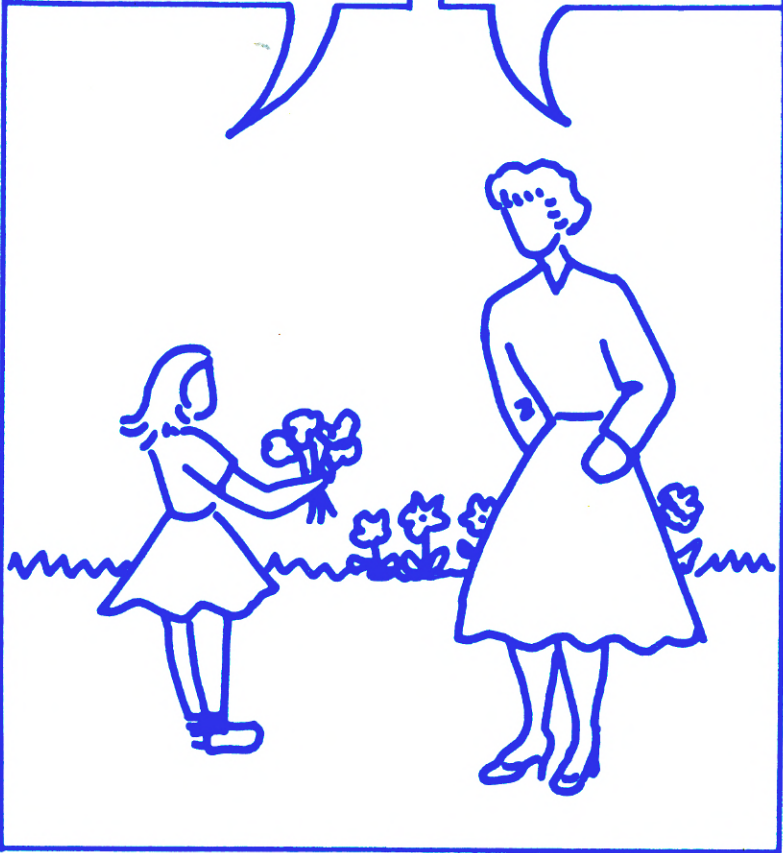
Listen to me
now, I want
to tell you
something.



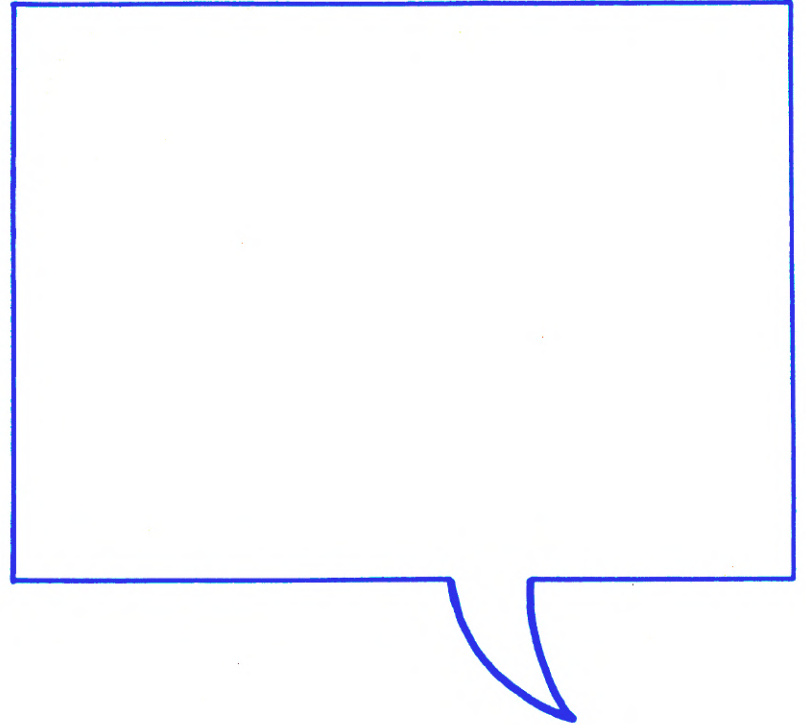
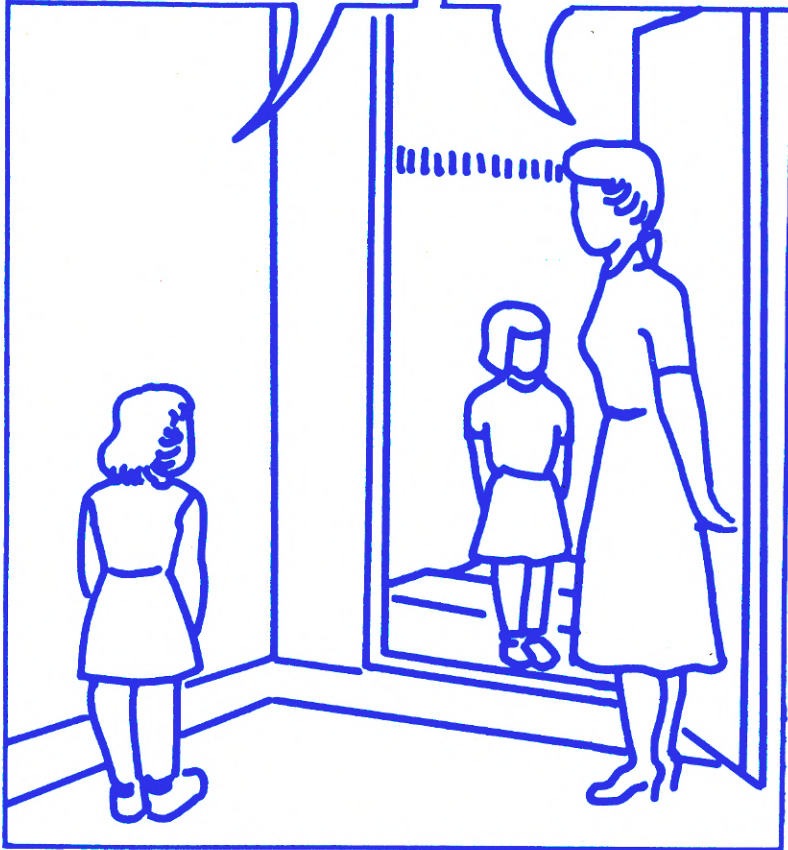
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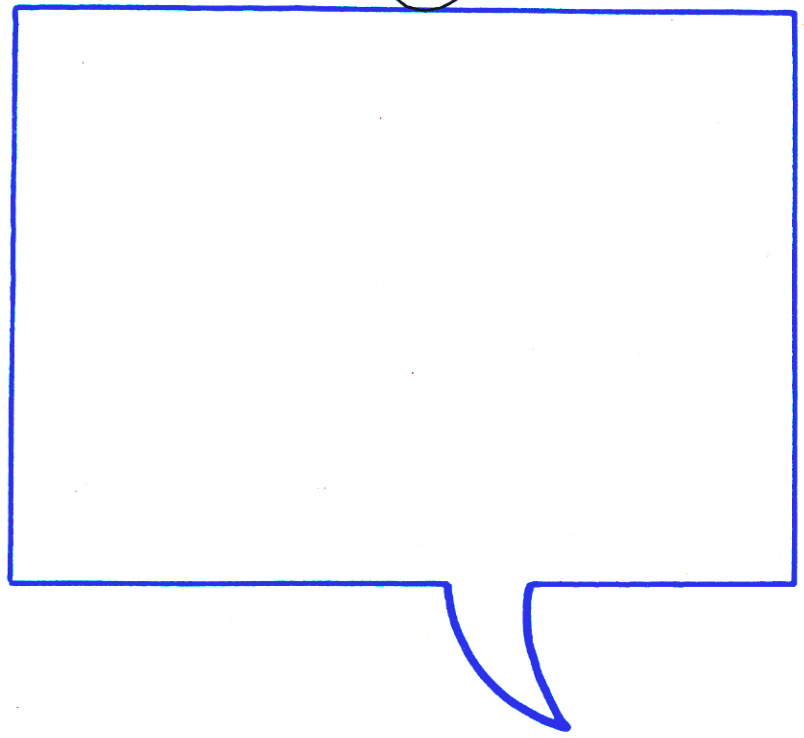
I only picked
a few. I
thought it was
all right.



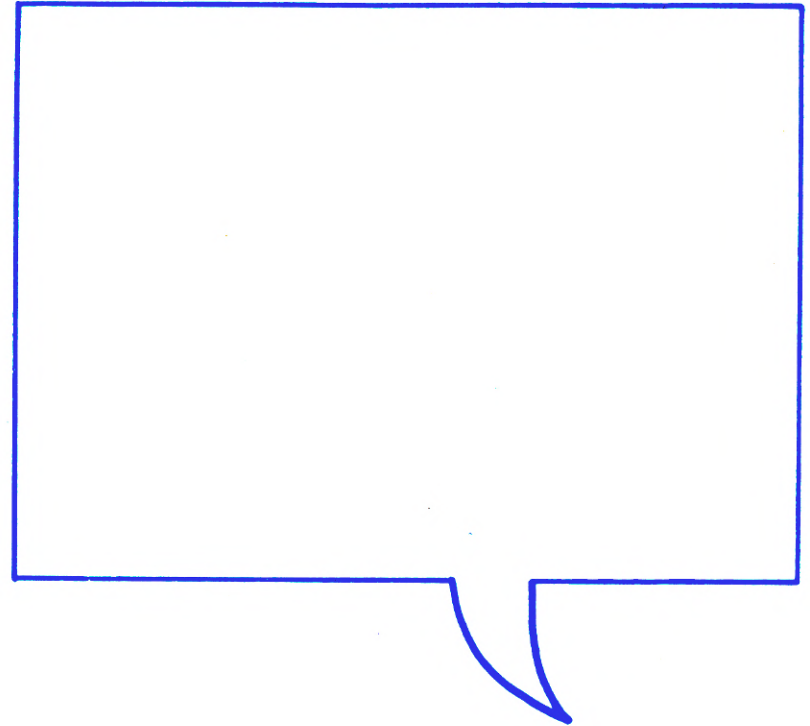
Tell her to go home. I don't want to play with her.



He's a crybaby,
isn't he? I
didn't cry.

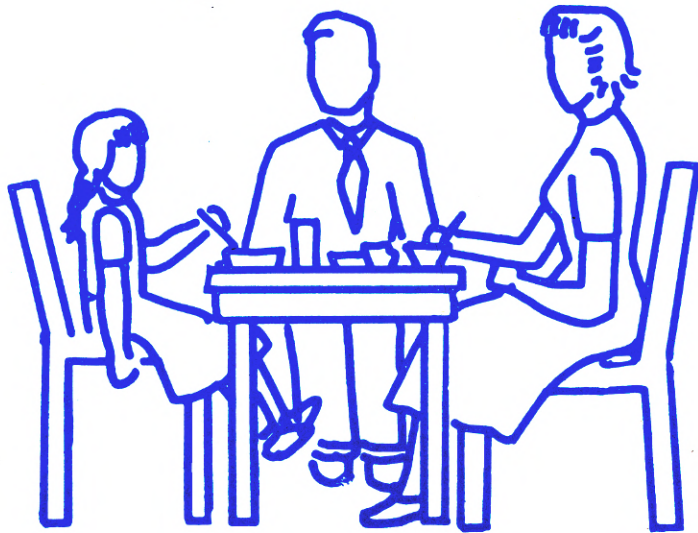


I don't want to go to bed. He doesn't have to go to bed yet.

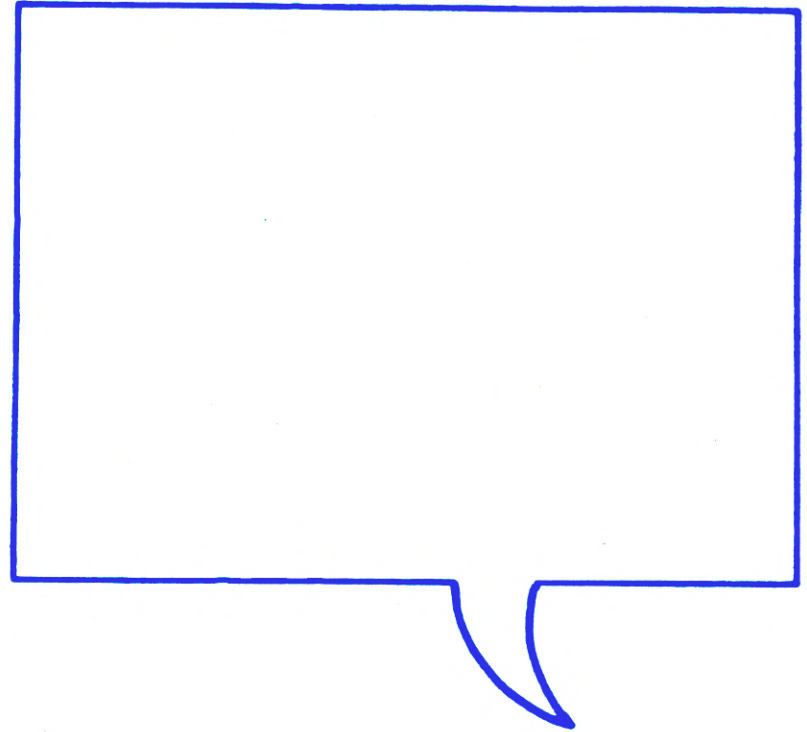


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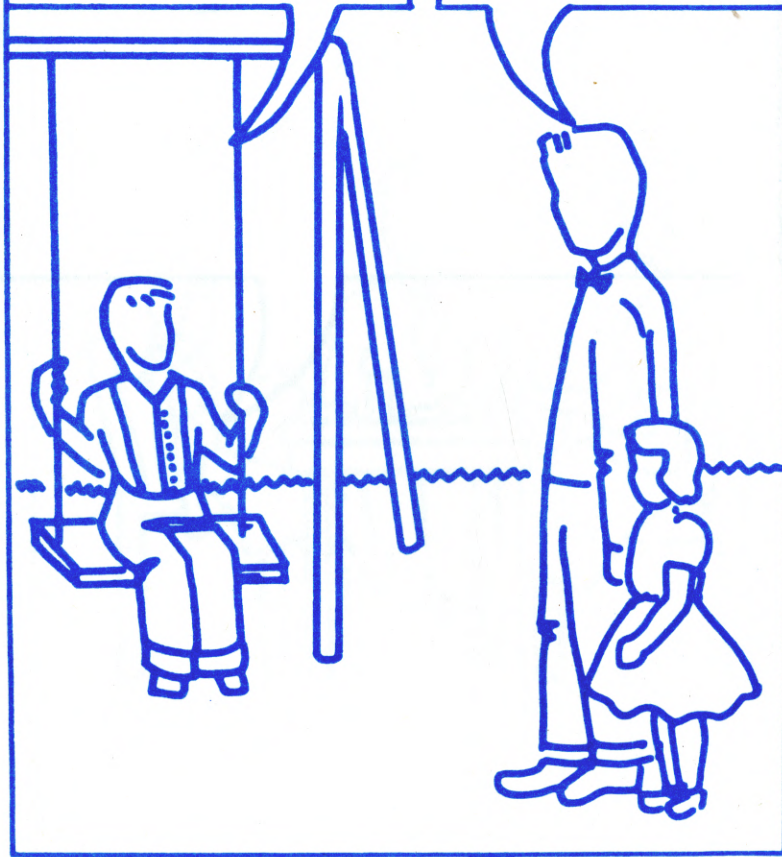
I don't
want to
eat this.



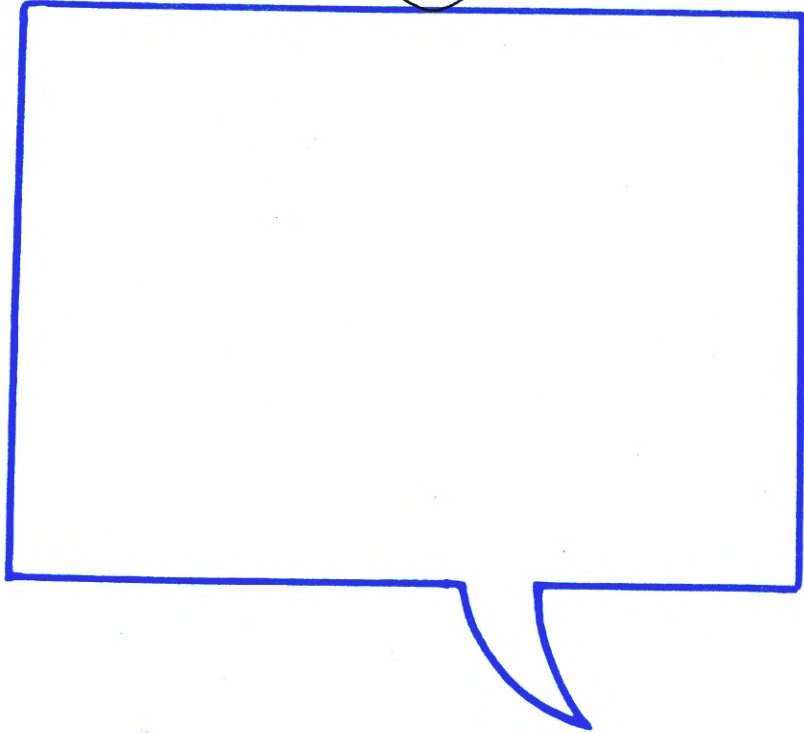
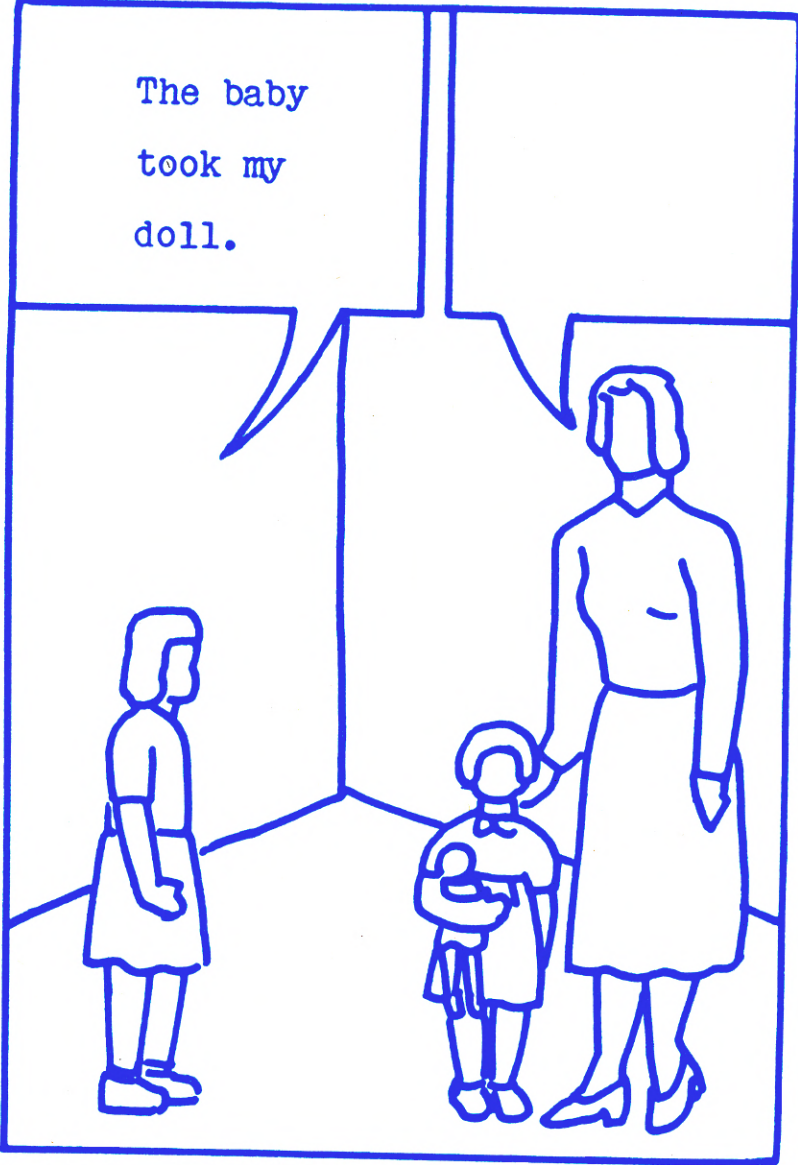
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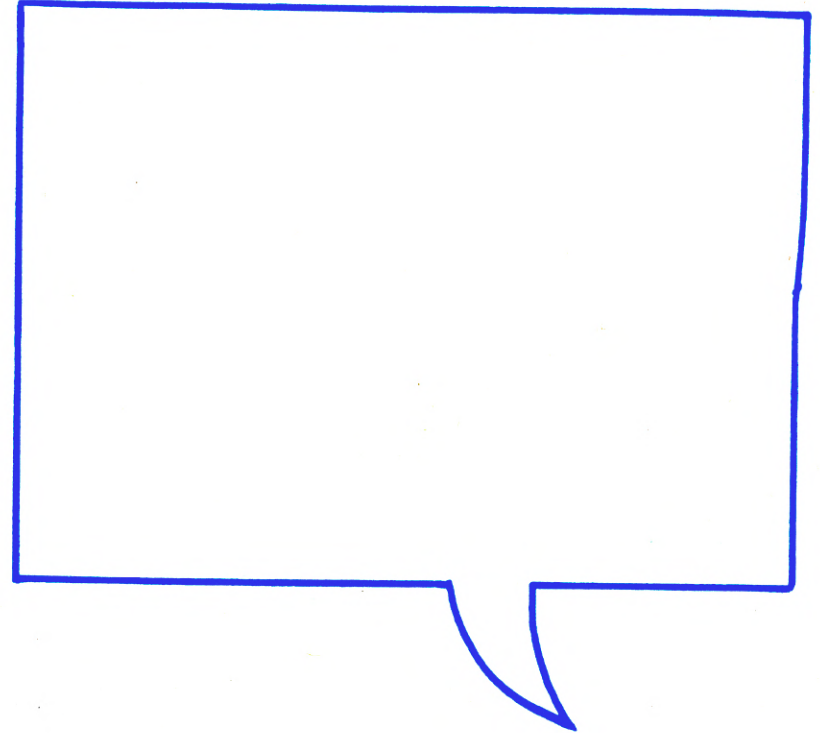
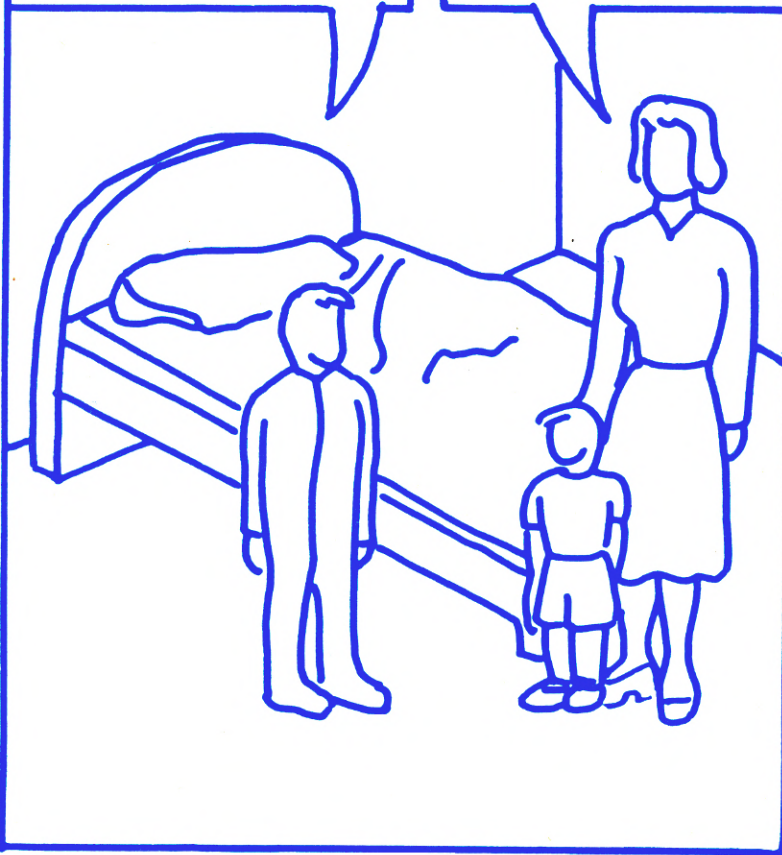
I don't want
her to have
a turn.



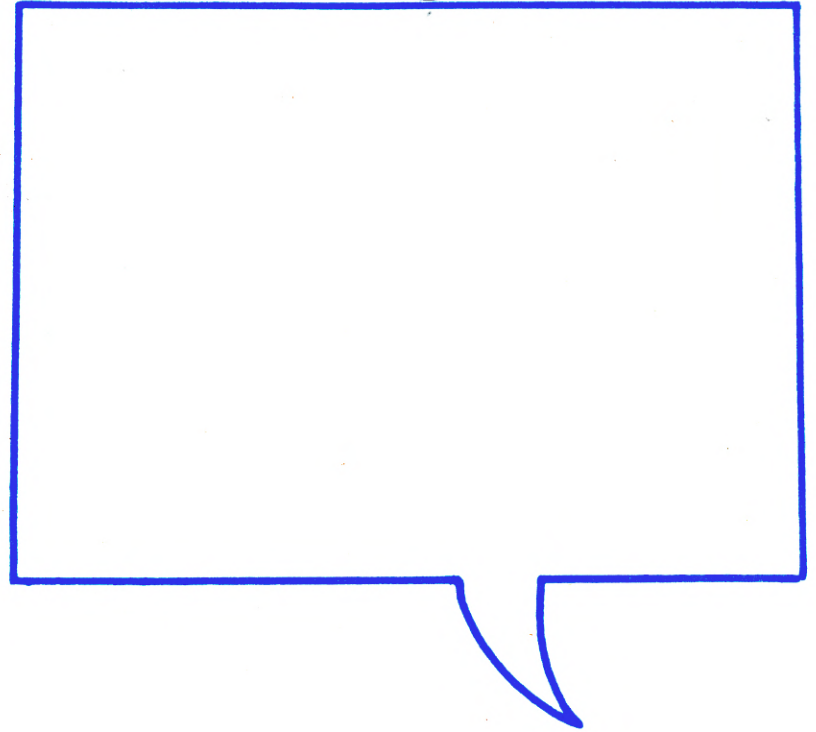
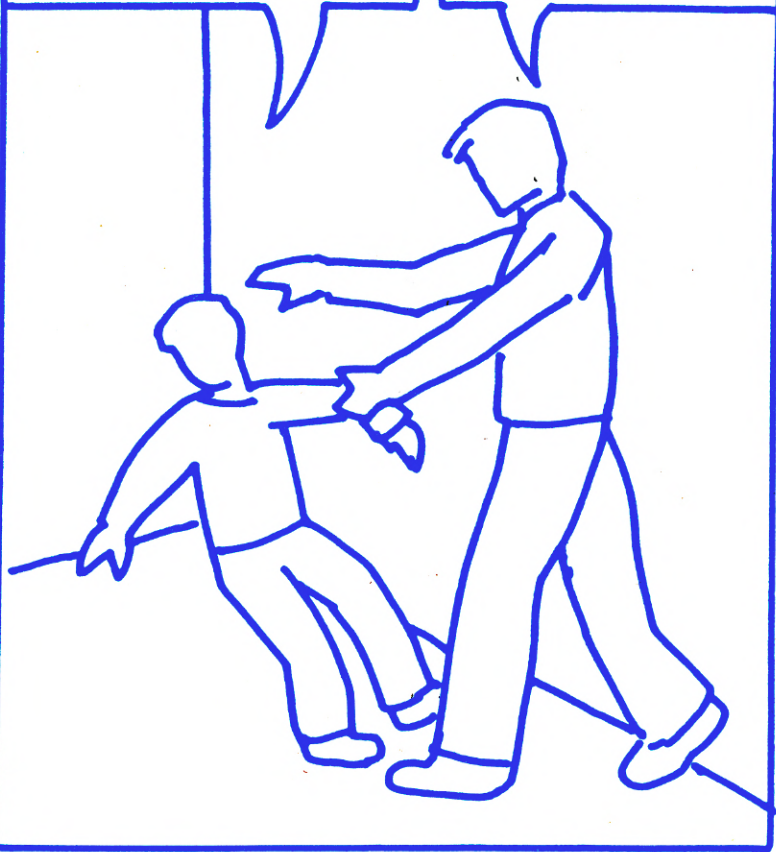
The baby
took my
doll.



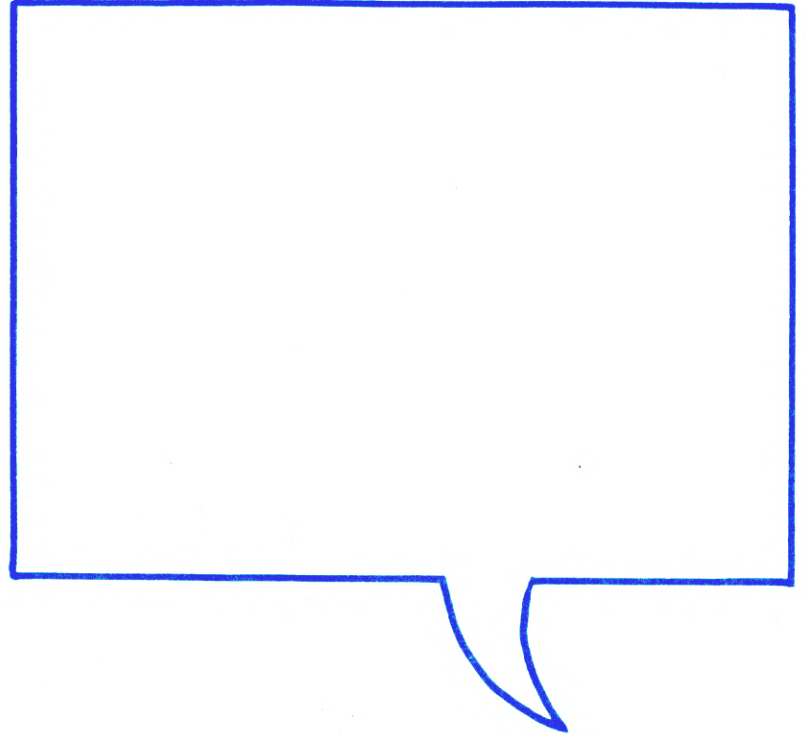
I can wet my
bed if I want
to. He wets
his bed.



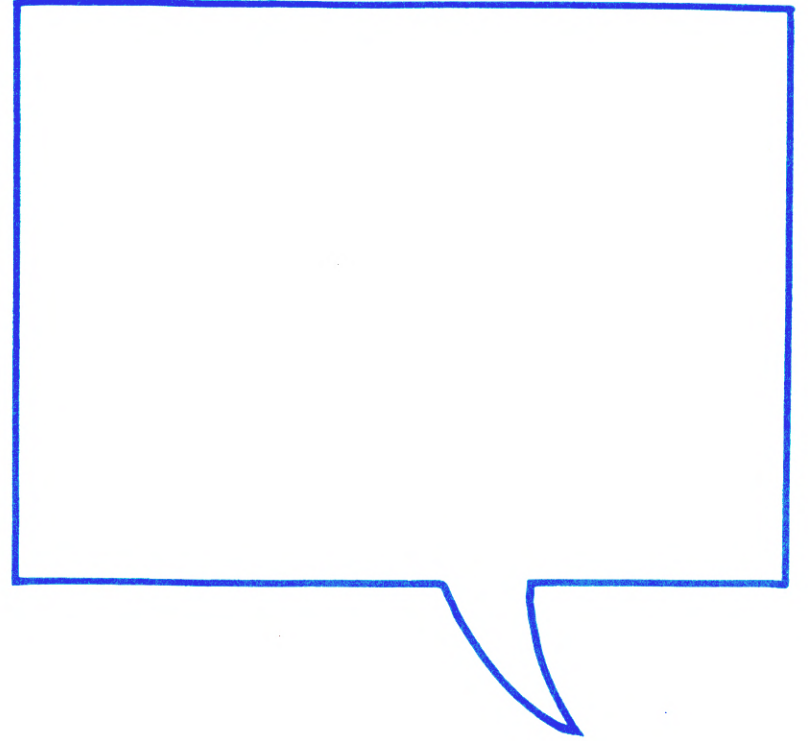
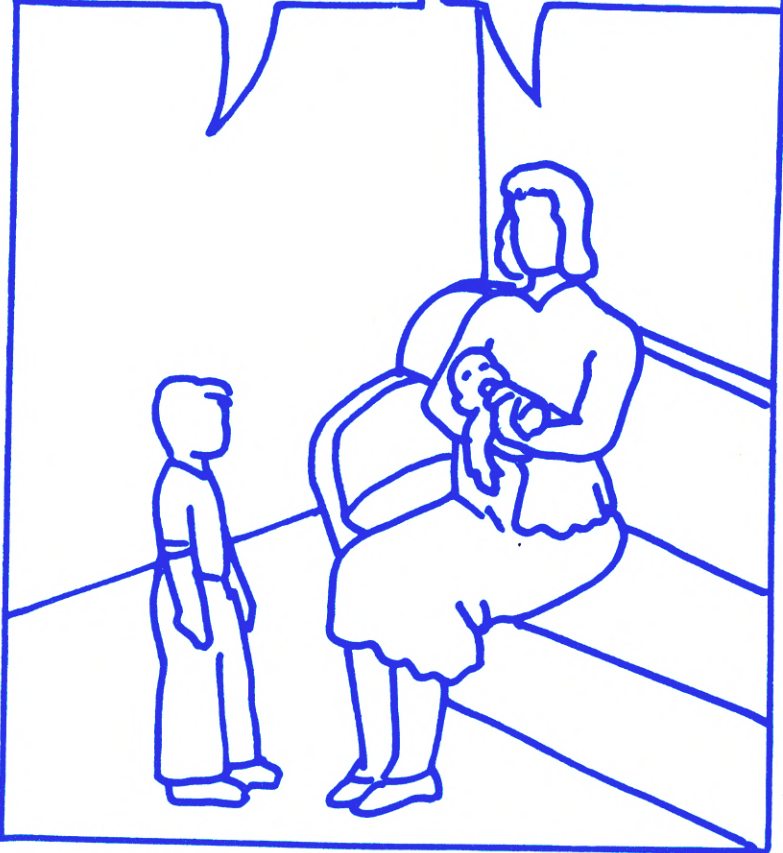
Don't spank
me. I won't
do it again.

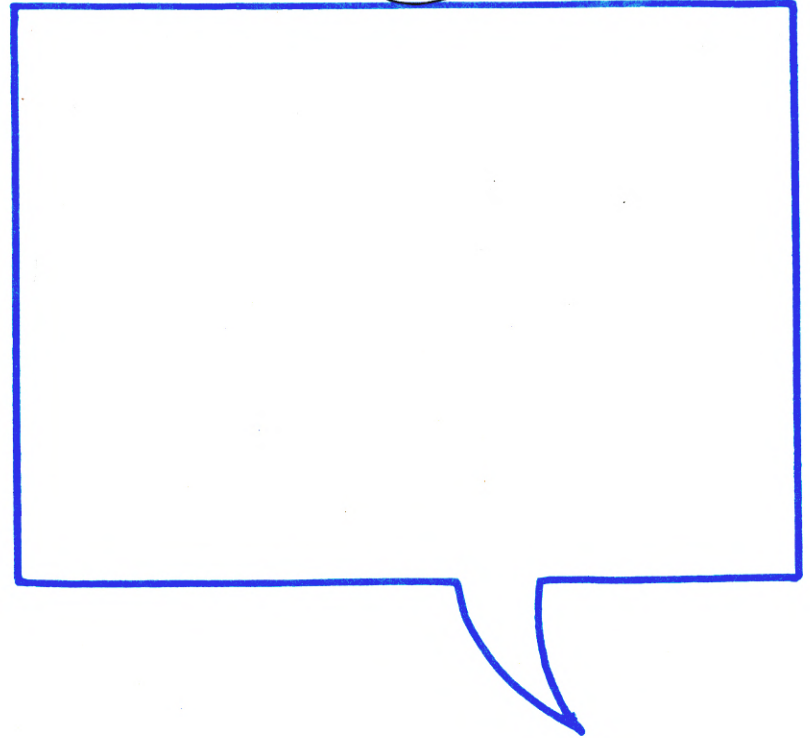
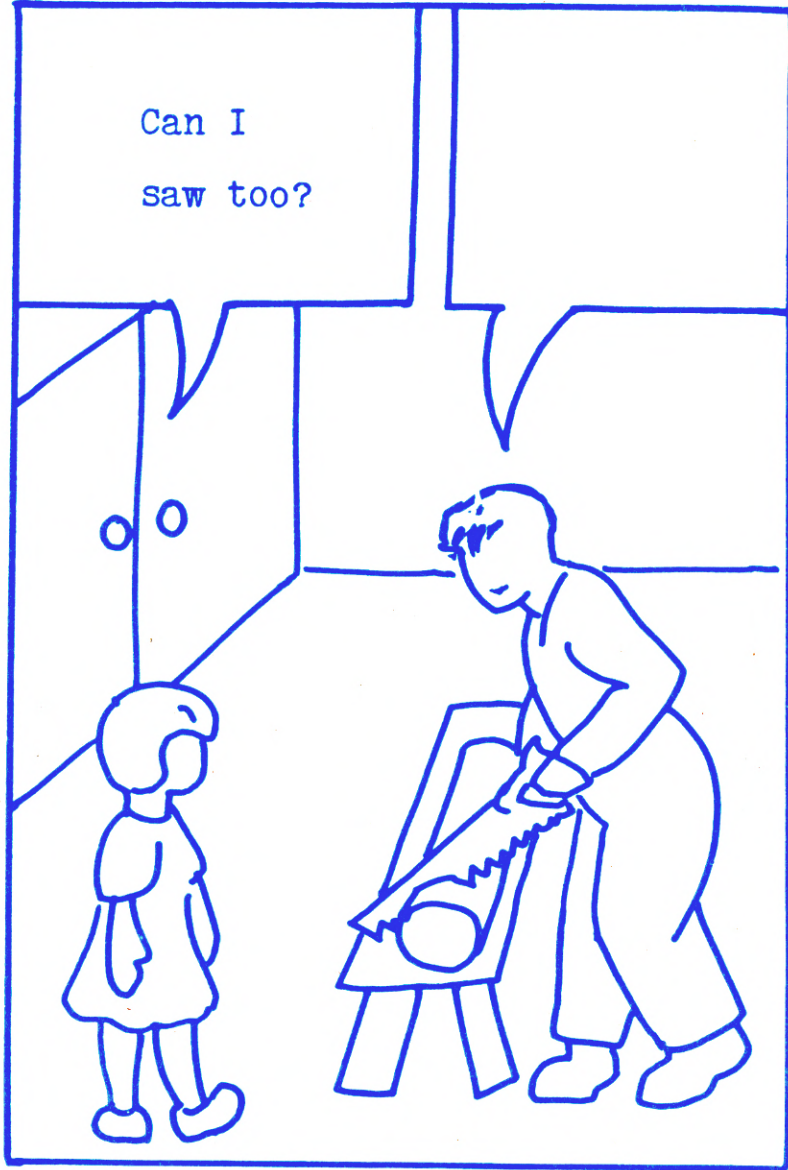


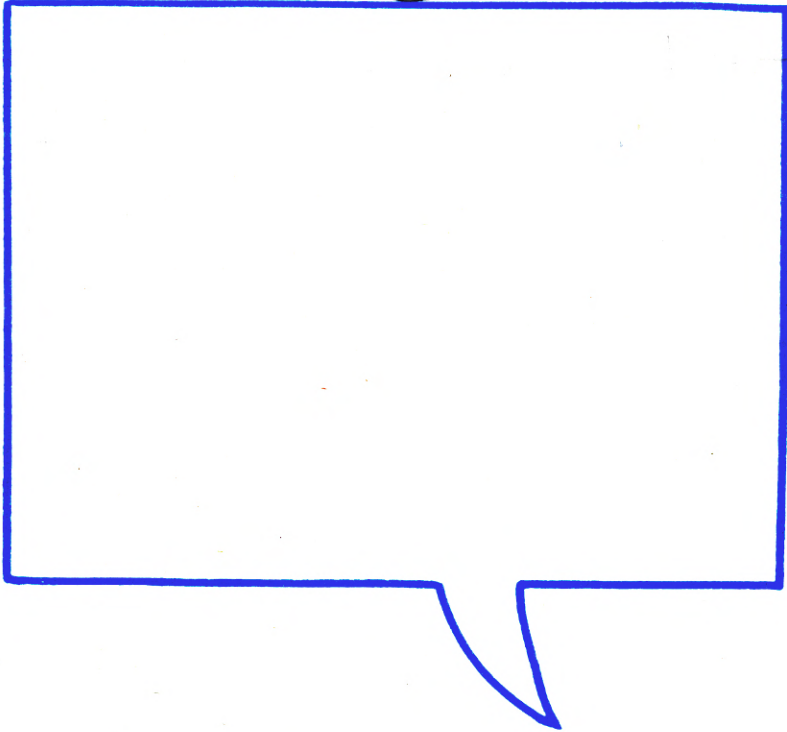
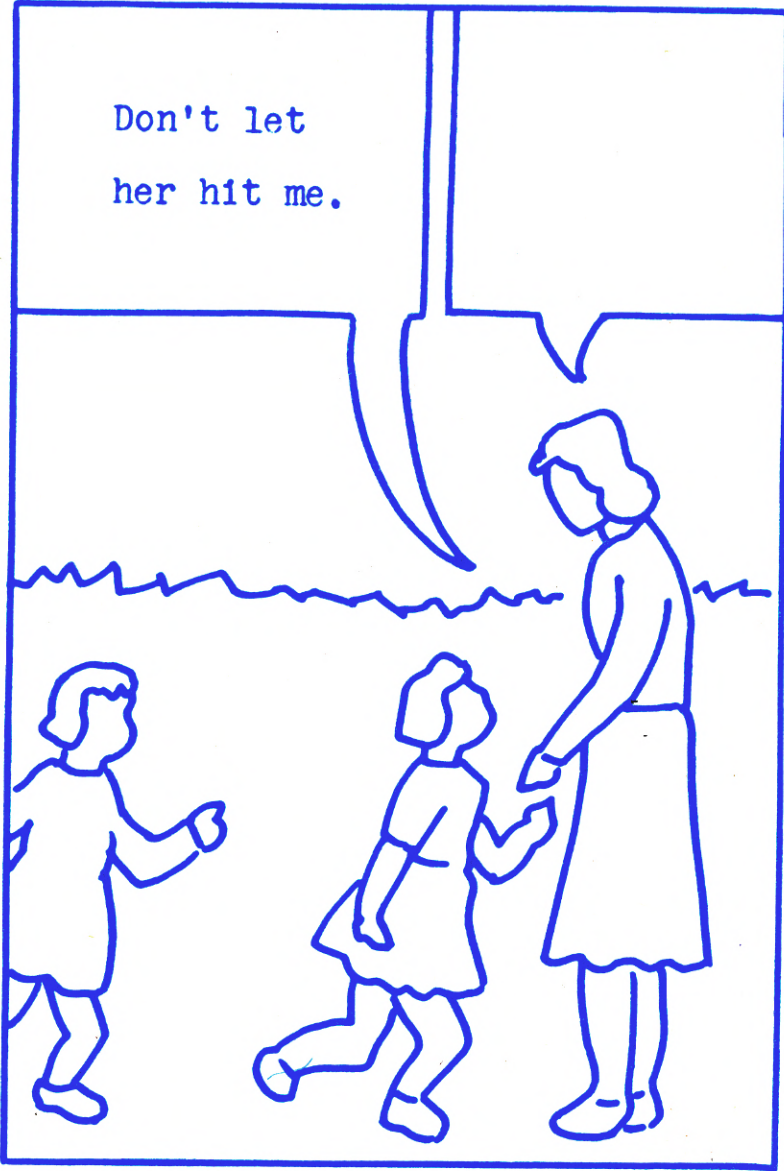
Don't go out
tonight. Stay
home with me.

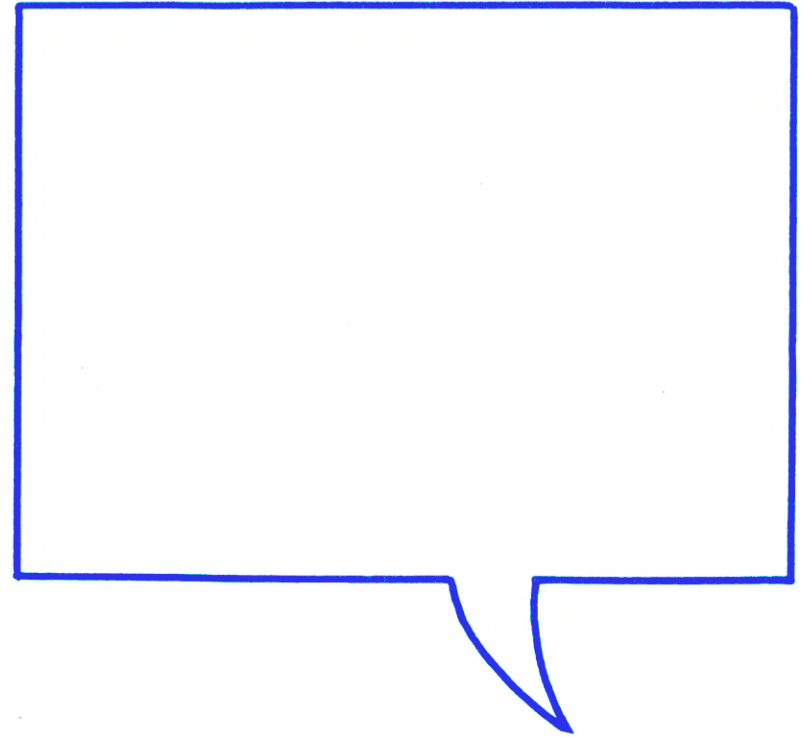


Let's take the
baby back. I
don't want a new
baby sister.

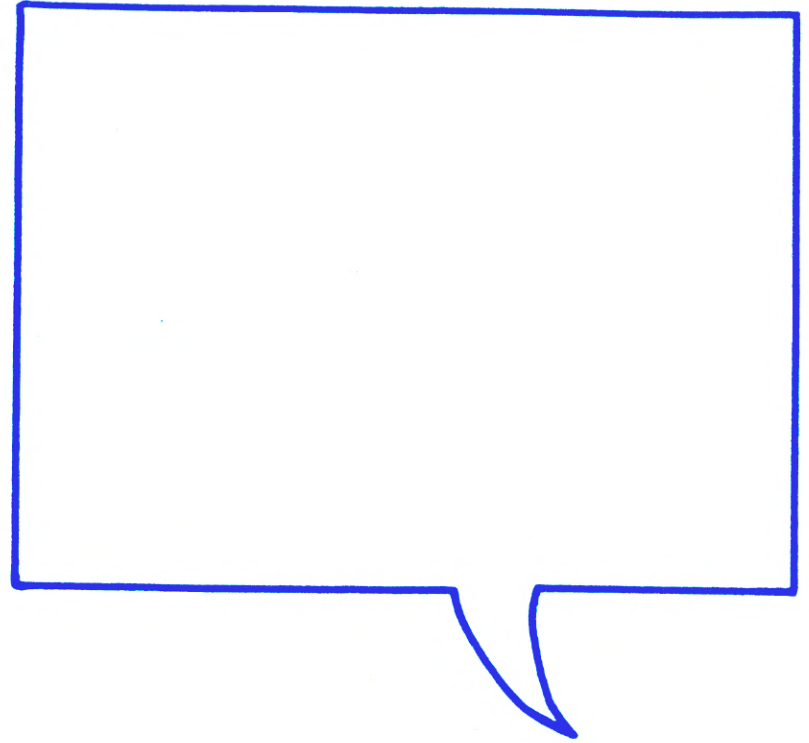
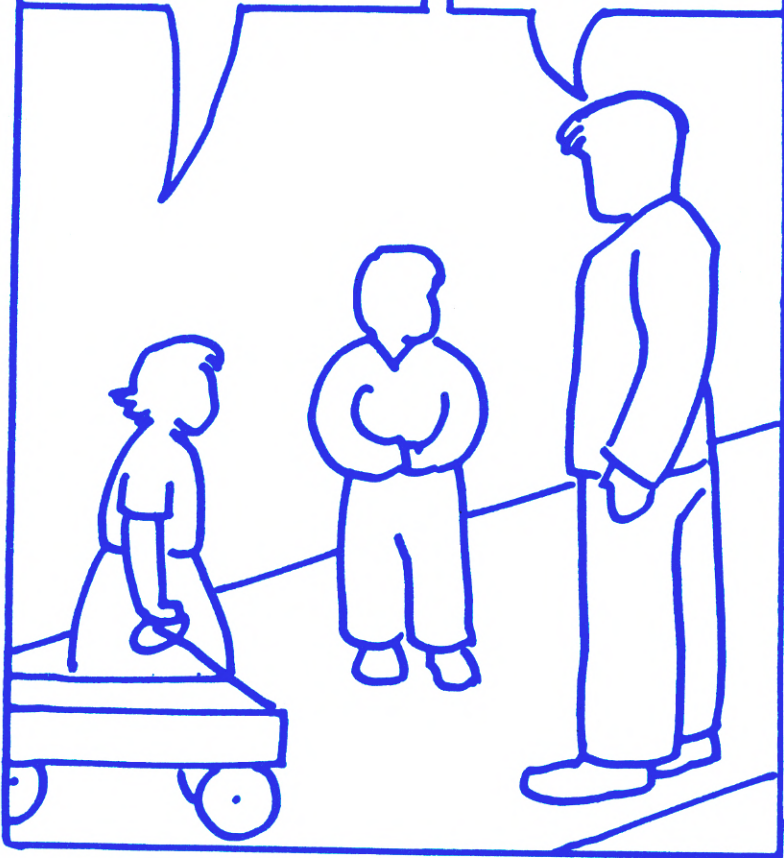






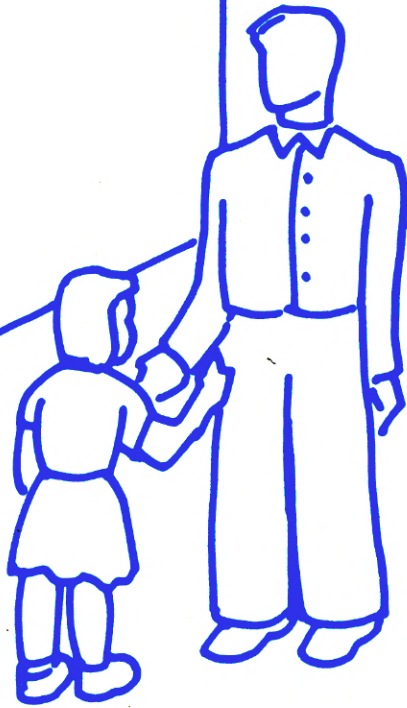


He tried to
take my wagon
so I hit him.

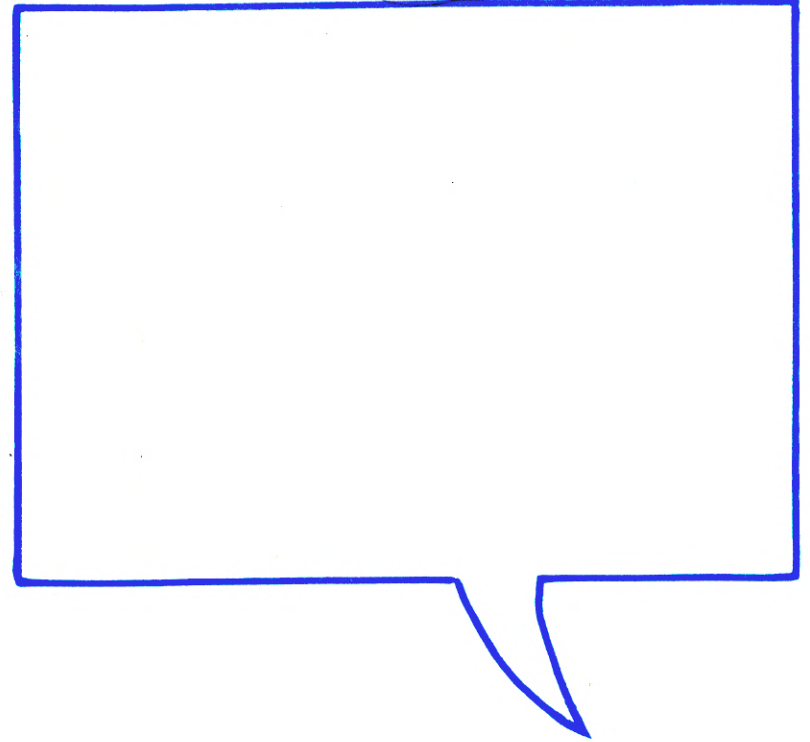


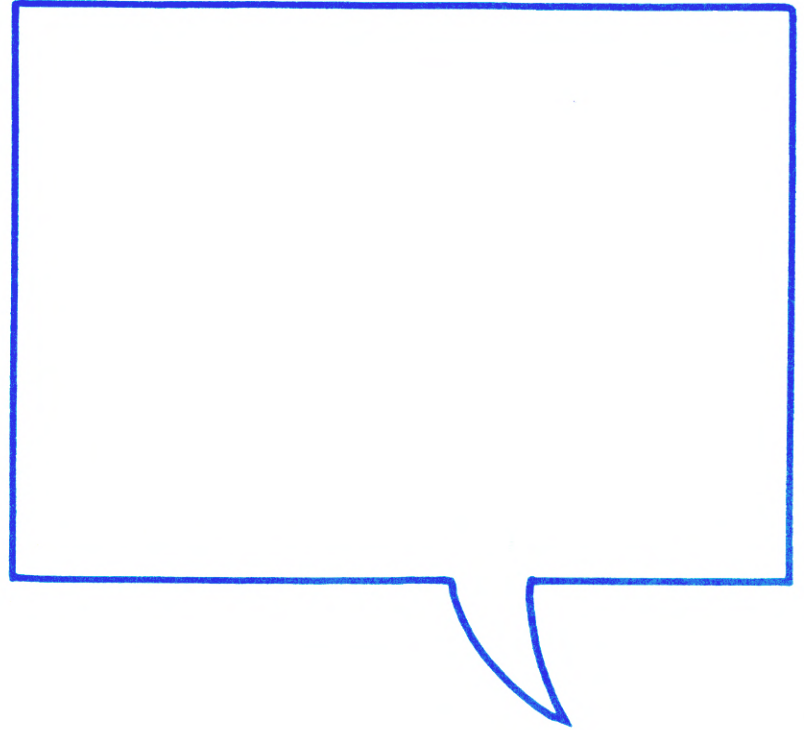
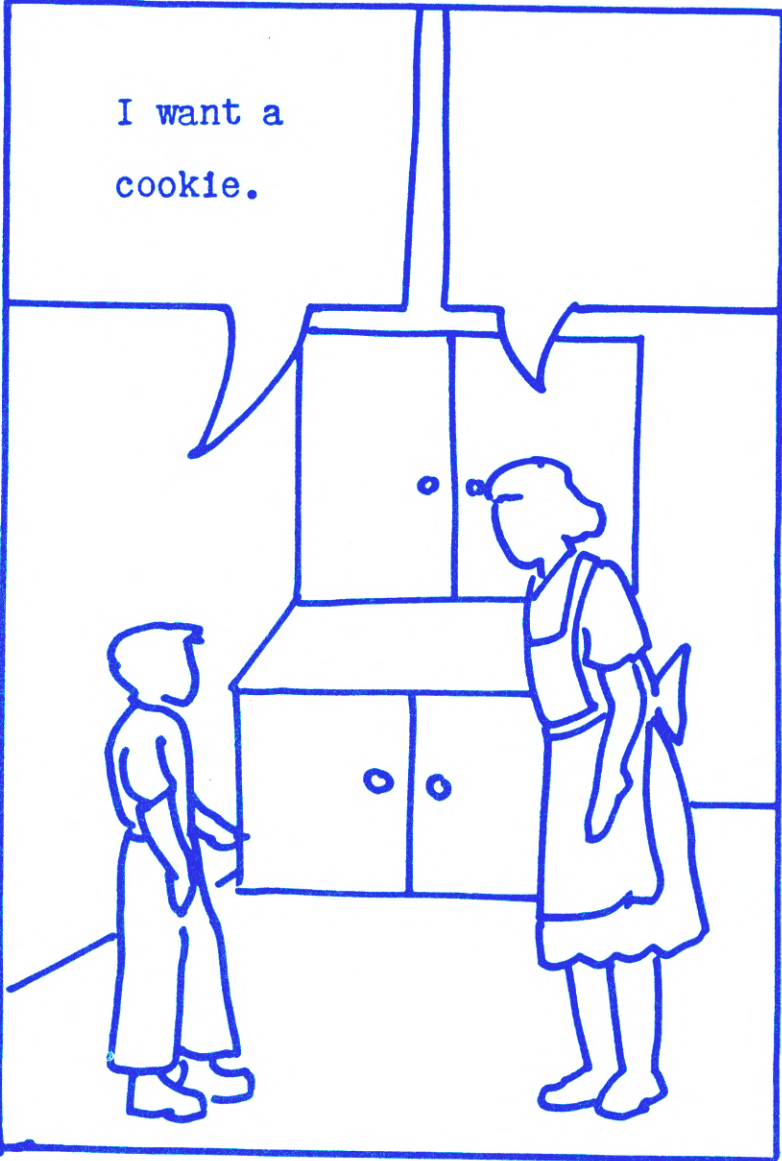
26

Go away.
I hate you.

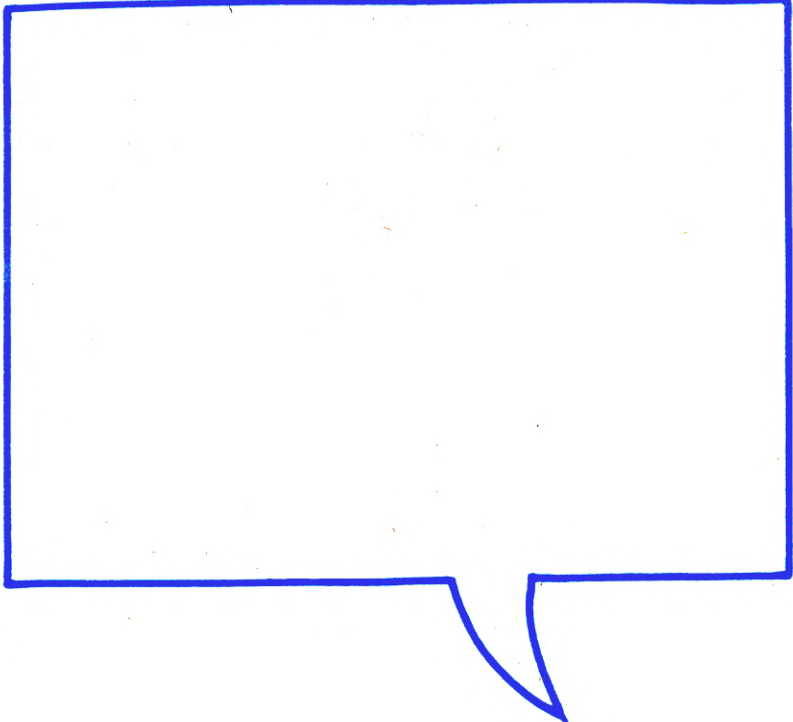
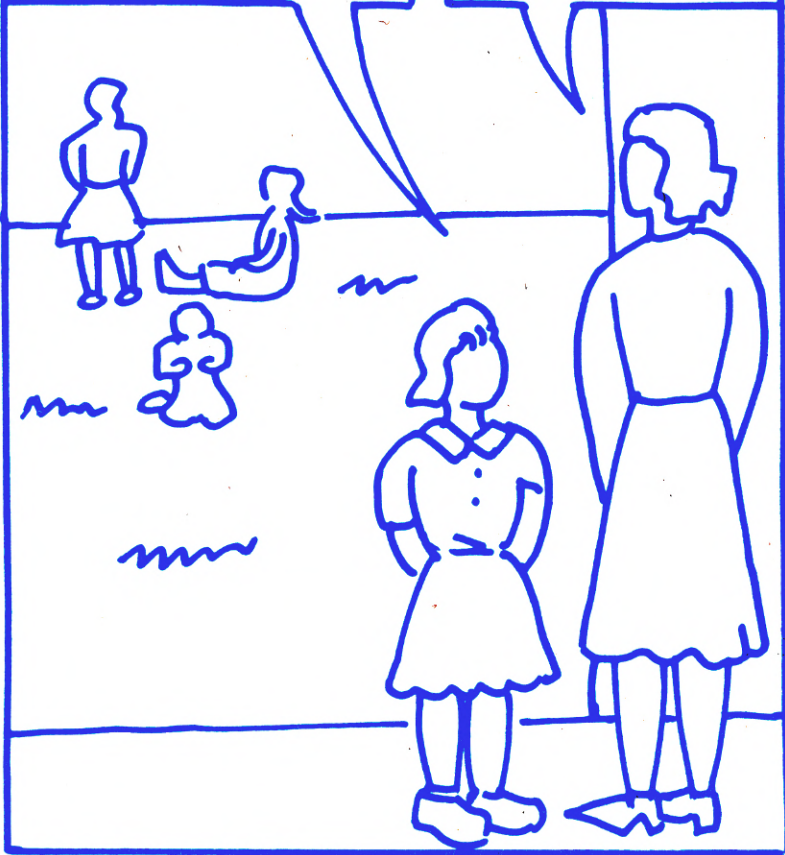


26





The other
girls won't
play with me.



THE EFFECT OF AN INTRODUCTORY COURSE IN CHILD DEVELOPMENT
ON THE EMPATHY OF SOPHOMORE COLLEGE WOMEN
TOWARD CHILDREN

by

MARGARET JOYCE HERR CANTRELL

B. S., Kansas State University, 1959

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Family and Child Development

KANSAS STATE UNIVERSITY
OF AGRICULTURE AND APPLIED SCIENCE

1960

The objectives of this study were as follows: (1) to find the degree of empathy expressed by a selected group of sophomore college women on a specific test before and after taking an introductory course in child development, (2) to compare the test scores with those made by a control group not taking such a course, (3) to find the relationship between the degree of empathy expressed and: freshman grade point average, A.C.E. scores, experience with children, and ordinal position, (4) to find the relationship between the gain in empathy and: freshman grade point average, A.C.E. scores, experience with children, and ordinal position.

Two groups of university women were selected for subjects. One group consisted of 27 sophomore home economics students enrolled in an introductory child development course. A control group consisted of 27 sophomore home economics students who were not at the time enrolled in the course and who had never taken such a course.

The students in the class and the students in the control group were given the Dawe-Jones test of adult empathy for young children in January and again in May 1960.

After the initial scores were totaled, observations were made at the Child Development Laboratory of the class member who scored highest on the empathy test and the class member who scored lowest on the empathy test. Each subject was observed for two and one-half continuous hours. These running observational records were evaluated by the author and a faculty member as to the empathy the students showed.

The Kansas State University Statistical Laboratory tested the change of the class and the control with t-tests to see if the average difference in empathy score was more than that which could have occurred by chance. The initial empathy score was correlated with the A.C.E. score and freshman grade

point average. An F test was used to see if experience and ordinal position were related to empathy and gain in empathy. A.C.E. scores and freshman grade point averages were also correlated with gain in empathy.

The results of this study indicated that empathy as measured by the Dawe-Jones Test can be acquired and that the empathy measured by this test will improve as knowledge about children and what they are like increases.

Initial empathy was found by this study not to be related to A.C.E. scores, freshman grade point averages, ordinal position or previous experience with children. The better students as shown by A.C.E. scores and freshman grade point averages increased more in empathy than did the poorer students and older and middle children increased more in empathy than did younger and only children.

Test situations most likely to show an increase in score were those similar to situations which the students had frequently observed in the Child Development Laboratory. Students were found to be somewhat confused by pictures depicting more than one child in situations where the needs were in conflict.

The observed behavior of the two class members revealed that the subject scoring highest on the projective empathy test also scored higher on observed empathic behavior than did the subject scoring lowest on the projective test.