

CORRELATES OF COLLEGE STUDENTS'  
UNDERSTANDING OF CHILDREN'S BEHAVIOR

by

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# CORRELATES OF COLLEGE STUDENTS' UNDERSTANDING OF CHILDREN'S BEHAVIOR

## INTRODUCTION

In everyday living one frequently predicts an individual's performance in a given area on the basis of casual impressions of his academic ability and/or his personality characteristics. Although these predictions are sometimes general and subject to a large amount of error, their continued use attests to their value. There are many situations in which a more accurate prediction of performance is desirable. One of these involves the prediction of adults' understanding of children's behavior.

Some people are sensitive to the cues in a child's behavior that indicate important factors about the child. Other people are grossly unaware of these same cues. If we could determine specific correlates that relate to these individual differences in ability to recognize cues, we would have a basis for predicting an individual's ability to understand children's behavior.

Predicting a person's potential for accurate perception of behavior would have considerable practical value. For example, it would lead to a considerable saving in educational effort in training people to work with children, because it would then be possible to focus attention only on those persons who were able to benefit from that attention.

A number of research studies have attempted to identify correlates of behavioral understanding and the ability to recognize significant cues in a child's behavior. Gage and Cronbach (6) have suggested that a person's understanding of behavior is heavily dependent on his perceptual ability, and that perception is a process dominated far more by what the person brings to the situation than by what he receives as cues from the actual situation. Thus, in order to identify correlates of behavioral understanding, the influential composite of factors brought to the situation which affect perception must be identified. A number of studies suggest that personality is the area to investigate in attempting to locate these influential factors (4) (16) (17) (2) (12) (19).

#### Purpose of the Study

This study proposes to investigate the relationship between academic performance and personality characteristics of college students and their understanding of children's behavior. The basic design of the study is illustrated in Figure 1.

Previous studies of this nature have been concerned with correlating a subject's personality characteristics with his empathy (4), judgment or insight ability (16) (17) (2) (12), or teaching success (19). For the purpose of

this study, personality characteristics plus academic performance are correlated with three factors which the author has pooled together and labeled understanding. Understanding, as defined for this study, includes the subject's sensitivity, his knowledge of child behavior and development, and his understanding of guidance principles. These last two factors were included in the measure of understanding because they seemed relevant to understanding children's behavior.

#### BASIC DESIGN OF STUDY

---

Investigate Relationship Between -

##### PERSONALITY CHARACTERISTICS

Psychological inventory  
Anxiety level  
Parental attitudes

and UNDERSTANDING

##### ACADEMIC PERFORMANCE

Grade point average  
Class grade  
Nursery school lab. rating

Knowledge of child  
behavior  
Sensitivity  
Guidance principles

---

Figure 1.

### Background of the Study

Most of the research literature that is of importance to this study is reviewed in the particular sections of the study where it is relevant. The purpose of this section is to review in detail the study that was the stimulus and foundation for this present study, i.e., Helen Marshall's study of the relations between personality characteristics of college students and the accuracy of their judgments of children's social acceptance (12).

The purpose of Marshall's study was to investigate the relationship between personality characteristics of college students and accuracy in judging children's choices of friends. The subjects were 131 freshman and sophomore students who were taking a beginning child development course in which preschool children were observed. Two general measures were obtained in the study, (1) the personality characteristics of the subjects, and (2) the subjects' judgments of the children's best friends and the accuracy of these judgments. The personality characteristics Marshall investigated were (1) social acceptance by peers, as measured by a Sociometric test, (2) socio-empathy, i.e., ability to predict the social behavior of others, (3) manifest anxiety, measured by Taylor's Manifest Anxiety Scale, (4) attitudes toward family life, measured

by the Parental Attitudes Research Instrument, (5) intelligence, as indicated by the college entrance examination score, and (6) mastery of material in the child development course, indicated by the semester grade.

The subjects' judgements of the children's best friends were determined by the subjects listing the three children they thought each child would select as his or her best friends. In order to have an accurate measure of the children's choices of friends, the children were given a picture sociometric test, and systematic observations were made of the social interactions of each child.

The results of Marshall's study were: (1) manifest anxiety showed an inverse correlation of  $-.47$  with accuracy scores on the ability to judge children's social acceptance. This relation increased to  $-.57$  when the influence of relations of college entrance examination scores with both accuracy scores and anxiety scores was partialled out. (2) one composite of the Parental Attitudes Research Instrument, that measuring attitudes favoring harsh, punitive control of children, showed an inverse correlation of  $-.32$  with accuracy scores. This relation was not changed markedly when either anxiety or college entrance examination scores were partialled out. (3) college entrance examination scores showed a positive correlation of  $.24$  with accuracy scores; the correlation was  $.15$  after

the influence of anxiety was partialled out. (4) no relationships were found between accuracy scores and social acceptance in peer groups, socioempathy, semester grades in the child development course, or the attitudes toward family life that are not concerned with type of control of children.

### The Hypotheses

#### Hypotheses to be tested in this study.

On the basis of Marshall's study, five hypotheses have been formed. Figure 1 may help clarify the following statements.

1. There will be a significant negative correlation between anxiety level and understanding of children's behavior.
2. There will be a significant negative correlation between parental attitudes favoring harsh, punitive control of children and understanding of children's behavior.
3. The null hypothesis has been assumed for the correlation between understanding of children's behavior and:
  - a. other attitudes measured by the standardized parental attitudes test.
  - b. personality characteristics measured by a standardized psychological inventory.
  - c. the total college grade point average.
  - d. the class grade indicating the quality of work in an advanced child development class.
  - e. the laboratory rating indicating the quality of performance with children in the nursery school.



Other literature bearing on these hypotheses.

Marshall's study provided the basis for these hypotheses, but other research evidence bears upon them. This section reviews the additional literature relevant to hypotheses 1, 3b, 3c, and 3d.

Hypothesis 1. There will be a significant negative correlation between anxiety level and understanding of children's behavior.

Two related studies by Gaier (5) and Moffitt and Stagner (14) lend support to this hypothesis. Gaier conducted a study in which he investigated the relationship between personality characteristics, as evidenced on the Rorschach test, and students' performance on different types of questions in a comprehensive examination. The Rorschach test was the basis for assigning ranks for the subjects on anxiety, rigidity, and negativism. The subjects who were most prone to anxiety did as well as others on the questions that involved knowledge of specific information, but not as well on problems which involved analysis, application, or synthesis. Gaier's conclusion suggests that anxiety does not disturb simple memory function, but it does disturb more complex problem-solving behavior. Since the questions on the FUB call more for application and problem solving than for knowledge of specific information, Gaier's conclusion can be related to this study. His conclusions would suggest

that high anxiety would disturb the subject's functioning on the FUB.

Moffitt and Stagner investigated the relationship between perceptual ability, as measured by five perceptual tests, and degree of anxiety as measured by Taylor's Manifest Anxiety Scale. Their measures correlate closely with the measures in this recent study, i.e., both studies call for perceptual ability and both use the same anxiety measure. They concluded that anxiety results in a diminished sampling of the cues necessary for making object discriminations. Anxious subjects are thus handicapped in their ability to make the finer discriminations between overlapping cue sets.

Hypothesis 3b. There will be no correlation between personality characteristics on the personality inventory and understanding of children's behavior.

Bloom (1, p. 44) has suggested a relationship between personality characteristics and the ability to (1) do critical thinking and (2) relate ideas learned in a course to new situations. However, so far there isn't any strong empirical evidence for such a correlation.

Research is being attempted in a closely related area, that of correlating personality characteristics with (1) the ability to judge others (16) (2), and (2) empathic ability (4). The degree of reliability of these studies is too low for the results to be considered more than

interesting hypotheses that need further research. However, it is still important to note the trends they find and to study their methods and approaches to this problem.

Shaffer's study (16) was designed to investigate correlates of the ability to judge children's behavior. Groups of judges observed children and had to make predictions about their future behavior in a controlled situation. The predictions were checked with the children's actual behavior, and the judges were given accuracy scores. The Guilford-Zimmerman Temperament Survey and a vocabulary test were administered to the judges. There was no correlation between the accuracy scores and the temperament survey or vocabulary test.

A study by Cline (2) that investigates the personality correlates of judging ability gives evidence that is stronger than the other studies in this section. His subjects were shown films of employment interviews and required to make predictions about the real-life behavior of the subjects in the film. Eight tests were administered to a sample of the subjects to get measures of possible correlates with judging ability. The results for the female sample suggested that social skills and interests were significantly related to good judging ability. One section of the California Personality Inventory, Class II, is devoted to socialization, maturity and responsibility

factors; Cline's data suggests a positive relationship between high scores in Class II and understanding behavior.

Dymond (4) conducted an exploratory study based on the suggestion that empathic ability, i.e., the imaginative transposing of oneself into the thinking, feeling, and acting of another, seems to assure more effective understanding. She identified people having high and low empathic ability and compared their personality characteristics obtained from five instruments. She found that people high in empathy are outgoing, optimistic, warm, flexible, and have a strong interest in others. These characteristics are similar to the poise, ascendancy, and self-assurance factors covered in high scores on a section, Class I, of the personality inventory. Dymond found that people low in empathy are rather rigid, introverted, and subject to outbursts of uncontrolled emotionality. They seem to mistrust others, be inwardly orientated, and not well integrated with the world of reality. A number of these characteristics are similar to factors covered in low scores of both Class I and Class II of the personality inventory.

Hypothesis 3c. There will be no correlation between the total grade point average and understanding of children's behavior.

Taft (17) and Horrocks (8) report information relevant to this hypothesis. Taft reviewed studies and articles concerning correlates of the ability to judge others. He

used a classification system to distinguish between two types of judgments: (1) analytic judgments requiring conceptualizing and quantifying specific characteristics of the one being judged, e.g., rating traits, writing personality descriptions, and (2) nonanalytic judgments which require responding in a global fashion when judging others, e.g., matching persons with personality descriptions, making predictions of behavior. The judgments the subjects had to make on the test measuring behavioral understanding would be classified as nonanalytic judgments. Taft reports that studies requiring nonanalytic judgments tend to manifest low correlations between intelligence and accuracy of judgments.

Horrocks conducted a study in which an analysis was made to find how the ability to apply facts and principles of adolescent development, as measured by a case study test, relates with intelligence. The results indicate that, given intelligence enough to pursue college work, added increments of intelligence show a very slight positive relationship with ability to apply facts and principles. The results from the two studies reported above are not strong enough to support hypothesizing a positive correlation.

Hypothesis 3d. There will be no correlation between the class grade and understanding of children's behavior.

Horrock's study (8) also investigated the relationship existing between the ability to apply facts and principles of adolescent development and the final grade in the adolescent development class. The final grade showed a small positive relationship with ability to apply facts and principles.

## PROCEDURE

The purpose of this study was to investigate the relationship between academic performance and personality characteristics of college students and their understanding of children's behavior. The subjects for this study were 65 Home Economics seniors taking their third course in Child Development. The design structured to meet the purpose of this study included three measures of academic performance, three measures of personality characteristics, and one measure of behavioral understanding. The student's college grade point average (GPA), class grade in Family Life 425, and rating of the student's performance in the nursery school laboratory were the academic performance measures. The instruments for measuring personality characteristics were The California Psychological Inventory (CPI), Taylor's Manifest Anxiety Scale, and The Parental Attitudes Research Instrument (PARI). Statistical tests were used to investigate the relationships between these six measures and the student's understanding of children's behavior, which was measured by The Film Test For The Understanding of Behavior (FUB). The statistical analysis that investigated this relationship involved a regression equation.

### Subjects

The subjects for this study were 65 senior Home Economics students taking an advanced Child Development course, Family Life 425. The course is organized around participation in the college nursery school laboratories and focuses on developing insight into the social-emotional behavior of children. All students in the course had taken at least two other courses in Child Development and two terms of General Psychology. The final sample of 65 did not include a 100 percent sample of the class. Cooperation was on a voluntary basis, so some chose not to take part in the study. Two subjects were eliminated from the sample because of inadequate data.

### Instruments

#### Measures of academic ability.

1. College Grade Point Average. This measure is based on the grades received through the fall term of the subject's senior year. The grade point average is based on a four point system.
2. Class Grade in Family Life 425. This measure is based on (a) papers and projects, (b) quality of participation in the nursery school laboratory, and (c) contributions to class discussions. Evaluation of each subject in the above three areas is done by the instructor in the



course and the head nursery school teacher.

3. Rating of the Subject's Performance in Nursery School. This rating is made by three nursery school teachers and provides a measure of the subject's understanding of behavior as evidenced in interaction with children in the nursery school laboratory. Specifically, the subjects were evaluated on the quality of their (a) guidance practices with children, (b) relations with children, and (c) general understanding of behavior. The ratings were made on a five point scale. A copy of this rating scale appears in Appendix A.

#### Measures of personality characteristics.

1. California Psychological Inventory (7). The aim of the CPI is to provide measures of the "essential personalogical dimensions of the social personality" (7, p. 30). The CPI scales were included in the study because of their orientation to personality characteristics important for social living and social interaction, which in turn would seem to be important characteristics for understanding behavior. The test includes 480 true-false items which are grouped into eighteen scales. These scales are then grouped into four classes as demonstrated in Figure 2.

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CLASSES AND CORRESPONDING SCALES OF THE CPI

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<p style="text-align: center;">Class I</p> <p style="text-align: center;">MEASURES OF POISE, ASCENDANCY, AND SELF-ASSURANCE</p> <ol style="list-style-type: none"> <li>1. Dominance</li> <li>2. Capacity for Status</li> <li>3. Sociability</li> <li>4. Social Presence</li> <li>5. Self-acceptance</li> <li>6. Sense of Well-being</li> </ol>	<p style="text-align: center;">Class III</p> <p style="text-align: center;">MEASURES OF ACHIEVEMENT POTENTIAL AND INTELLECTUAL EFFICIENCY</p> <ol style="list-style-type: none"> <li>13. Achievement via conformance</li> <li>14. Achievement via independence</li> <li>15. Intellectual efficiency</li> </ol>
<p style="text-align: center;">Class II</p> <p style="text-align: center;">MEASURES OF SOCIALIZA- TION, MATURITY, AND RESPONSIBILITY</p> <ol style="list-style-type: none"> <li>7. Responsibility</li> <li>8. Socialization</li> <li>9. Self-control</li> <li>10. Tolerance</li> <li>11. Good impression</li> <li>12. Communality</li> </ol>	<p style="text-align: center;">Class IV</p> <p style="text-align: center;">MEASURES OF INTELLECTUAL AND INTEREST MODES</p> <ol style="list-style-type: none"> <li>16. Psychological-mindedness</li> <li>17. Flexibility</li> <li>18. Femininity</li> </ol>

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Figure 2.

Adequate reliability and validity have been demonstrated for this test. Two reliability studies using the test-retest method have been done. The results indicate that, "in general, the consistency of measurement is high enough to permit use of the scales in both group and individual testing" (7, p. 22). The authors of the CPI have attempted to demonstrate the validity of the scales by correlating each scale with similar ratings and measures. These correlations are reported in the test manual and in general support the validity of the scales (7, p. 23-27).

2. Taylor's Manifest Anxiety Scale (18). A short form of the anxiety scale was used in this study as it was in Marshall's study. In this form of the test, the 1954 revision, there are 90 statements. Fifty of these statements have to do with anxiety (the A scale). These 50 statements are unevenly separated by 30 statements which constitute a K scale and 15 statements which constitute an L scale. A low score on the K scale indicates that the subject may have been unusually severe in describing himself. A high score on the L scale is an indication of untrustworthiness of responses. The K and L scales were used to eliminate subjects who gave responses one could not place much confidence in. No subjects were eliminated by the K scale. Two subjects with L scores of 8 or more were eliminated from the sample.

A score for this test is determined by obtaining the total number of "anxious" responses to the 50 anxiety items. Tests given to varying populations give scores that normally range from 1 to 36, with the median being approximately 14. Manifest anxiety scores of the 65 subjects in this study ranged from 3 to 28, with a mean of 13.23.

Adequate reliability has been demonstrated for the test with reliability coefficients varying between .81 and .96. Results of studies concerned with the validity of

the instrument support the validity of the scale only as a coarse measure of manifest anxiety. Therefore, it is generally recommended that it be used only for identifying individuals at opposite ends of the scale (11).

3. The Parental Attitudes Research Instrument. The PARI is designed to measure parental attitudes toward child rearing and family life. In its recommended form, Form IV (15), the test includes 23 subscales, each having five items. These scales yield a median scale reliability of .67. For this study three of the scales were excluded, one rapport scale and two others. The rapport scale was omitted in order to keep the ratio of rapport items to content items near the suggested ratio of one to five. Three other rapport scales were left in the test even though they were never scored for purposes of attitude measurement. The scales of Marital Conflict and Inconsiderateness of the Husband were omitted because they did not seem to be relevant to the purpose of the study. The remaining 20 scales were grouped into four composites. These are listed in Figure 3. The raw scores obtained for each of the 17 scales in the first three composites were converted to stanine scores before being handled statistically.

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COMPOSITES AND CORRESPONDING SCALES OF THE PARI

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<p style="text-align: center;">Composite I CONTROL AND DISCIPLINE</p> <ol style="list-style-type: none"> <li>1. Fostering Dependency</li> <li>2. Breaking the Will</li> <li>3. Strictness</li> <li>4. Excluding Outside Influences</li> <li>5. Deification</li> <li>6. Ascendance of the Mother</li> <li>7. Intrusiveness</li> </ol>	<p style="text-align: center;">Composite III AREAS SENSITIVE TO SOCIAL PRESSURE</p> <ol style="list-style-type: none"> <li>1. Suppression of Aggression</li> <li>2. Suppression of Sex</li> <li>3. Acceleration of Development</li> </ol>
<p style="text-align: center;">Composite II REJECTION OF MOTHERHOOD</p> <ol style="list-style-type: none"> <li>1. Seclusion of the Mother</li> <li>2. Martyrdom</li> <li>3. Fear of Harming Baby</li> <li>4. Irritability</li> <li>5. Rejection of Homemaking Role</li> <li>6. Avoidance of Communication</li> <li>7. Dependency of the Mother</li> </ol>	<p style="text-align: center;">Composite IV RAPPORT SCALES</p> <ol style="list-style-type: none"> <li>1. Equalitarianism</li> <li>2. Comradeship and Sharing</li> <li>3. Encouraging Verbalization</li> </ol>

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Figure 3.

Measurement of understanding behavior.

This measure was obtained through The Film Test For The Understanding of Behavior (14). Since this is a test which has just been developed, it lacks published norms, reliability and validity data, etc. For this reason the details of the development of this instrument are included in this writing.

The authors of the FUB are Dr. Henry D. Schalock, Oregon State College, and Dr. Jack Edling, Oregon College of Education.

A. Purpose of the test. The test has been designed to provide an objective measure of:

(1) knowledge of expected behavior and development in three- and four-year-old children. This includes awareness of the meaning of behavior in terms of its implications for the future development of the child, and in terms of its reflecting existing personality characteristics of the child.

(2) sensitivity to the feelings of children.

(3) understanding of guidance principles as they relate to specific behaviors.

B. Theoretical basis for the test. In any test situation the tester has the task of communicating to the testee the concepts or events in which he is interested in such a way that the stimulus situation will be equivalent for all that take the test. When the phenomena being described in the test are relatively simple or have readily agreed upon meanings, they can be communicated to the testee through words. However, as these phenomena increase in their complexity or as they move away from readily agreed upon meanings, they become increasingly difficult to describe with words alone, and accordingly the stimulus situation loses its objectivity. These problems increase in tests dealing with human behavior, for here the defenses, biases, etc. of both the tester and the testee are active in distorting perception.

The FUB attempts to meet these problems by combining motion picture films and words. The film provides a means of presenting a complex stimulus pattern objectively, while the words focus the testee's attention to the aspects of the film which are of interest to the tester.

One other factor relating to the measurement of behavioral understanding has to do with the fact that knowledge of facts and principles about behavior does not assure the ability to apply those facts and principles in a life situation. By using films of ongoing behavior, it is felt that the FUB is better able to measure ability to apply facts and principles than paper and pencil tests designed to get at such understanding.

C. A description of the test. The test is built around ten filmed episodes of behavior of three- and four-year-old children. Each film episode runs approximately one minute in length. Six items have been developed around each episode. Each item involves a statement about the behavior observed in the film. The response to an item is made in terms of a five-point agreement-disagreement scale: Agree, Agree with hesitation, Uncertain, Disagree with hesitation, and Disagree. Scores for each item range from +2 for the most correct response to -2 for the least correct response. Thus, a test score can range from +120 to -120. A copy of the test, including the

directions and the answer sheet, appears as Appendix B.

D. The development of the test. The behavioral episodes appearing in the test were filmed in the Oregon State College Nursery Schools. Episodes were selected for the test on the basis of their interest and training value, and on the basis of their representing a complete behavioral act, i. e., an act which had a beginning and an end.

Items for the test were developed by a number of persons coming together and observing repeatedly the episodes included in the test. As they observed they noted the aspects of behavior in each episode that seemed particularly noteworthy. On the basis of these notations, ten to 15 statements relating to each episode were developed and pretested.

Selection of items for the final test proceeded in two phases. (1) The items were submitted to a number of professional persons and students for an evaluation of their clarity and readability. On the basis of this evaluation, the items were revised. (2) The revised items were submitted to a group of experienced nursery school teachers who were serving as experts. Their task was to respond to each item, making a most correct and next most correct response, and to identify the items felt to be particularly strong and particularly weak. On the basis



of this evaluation, six of the initial ten to 15 items were selected for each episode. Only items which were rated as being particularly strong by four of the five judges and which had an 80 percent interjudge agreement as to the "correct" and "next most correct" response for the item were included.

E. Adequacy of the test. Data coming from Karuven's study (10) and this present study give three checks of the competence of the FUB instrument. (1) Validity data comes from Karuven's study, which revealed a positive correlation between the number and nature of the courses taken in Child Development and Psychology and scores on the FUB. This demonstrates that the FUB is differentiating between levels of learning pertaining to preschool behavior. (2) The use of the FUB in these two studies has revealed a near-perfect normality of the distribution of scores on the test for all the groups that have been tested. This fact adds to the confidence that can be placed in the instrument. (3) An item analysis of the FUB items revealed that 28 of the 60 items discriminated high and low scoring groups. A rank order correlation was then computed to determine the correlation between the test as scored for the original 60 items and as scored for the 28 discriminating items. Positive correlations of .77 and .89 indicate that the original score gives essentially the same results as the

shortened version with discriminating items would reveal.

### Method of Procedure

#### Obtaining cooperation of subjects.

The 65 subjects came from three class sections of Family Life 425. In each of these sections, class time was allotted for the writer to explain the plan of this study to the students and to request their cooperation to participate in the study. The explanation given to these students appears in Appendix C. This procedure of explanation served another important purpose. In order to obtain reliable responses on the FUB test, it was important to insure the proper motivation of the subjects. Since the structure of the FUB calls for making judgments about behavior, the subjects needed to feel free to be objective in their judgments so that their responses would not be colored by false motivations, e. g., concern about their grade in the Family Life 425 class, or resentment for having to take the test and feeling that it was not important.

#### Administration of instruments.

The measures of personality characteristics, the CPI, Taylor's Manifest Anxiety Scale, and the PARI, were administered in special 1½ to 2 hour sessions set up for the

convenience of the subjects. This was done during the last four weeks of a term. The measure of understanding behavior, the FUB, was administered in the last Family Life 425 class session of a term.

## RESULTS

The purpose of this study was to investigate the correlations between academic performance, as measured by three variables, and personality characteristics, as measured by eight variables, with understanding of children's behavior. The academic and personality characteristics are referred to as prediction variables; the criterion to be predicted is understanding of children's behavior. Statistical tests have been used to evaluate the results of these correlations. The five percent level of significance was used as the basis for determining if results represented a significant or non-significant relationship.

For purposes of subjecting the hypotheses cited in Chapter I to statistical tests, the null hypothesis was assumed. This hypothesis states that the correlation between each of the eleven predictive variables and the FUB is equal to zero. A rejection of the null hypothesis implies a significant relationship between the variable and the criterion. The acceptance or rejection of the null hypothesis on the basis of the data coming from this study is reported in Table I.

The statistical test of the null hypothesis was a multiple regression equation. This equation was calculated

TABLE I

THE ACCEPTANCE OR REJECTION OF THE NULL HYPOTHESIS FOR THE RELATIONSHIP, REPORTED IN TERMS OF REGRESSION COEFFICIENTS, BETWEEN ELEVEN PREDICTIVE VARIABLES AND THE FUB

Prediction Variables	Recorded Relationship	Conclusion
1. Anxiety Level . . . . .	-0.18	accept
2. PARI-I. Control and Discipline. . .	-0.75	reject
3. PARI-II. Rejection of Motherhood. .	0.35	accept
4. PARI-III. Areas Sensitive to Social Pressure . . . . .	-0.48	accept
5. Grade Point Average . . . . .	-1.65	accept
6. Class Grade . . . . .	4.51	accept
7. Laboratory Rating . . . . .	-0.71	accept
8. CPI-I. Measures of Poise, Ascendancy, and Self-assurance. . . . .	-0.05	accept
9. CPI-II. Measures of Socialization, Maturity, and Responsibility. . . . .	-0.12	reject
10. CPI-III. Measures of Achievement Potential and Intellectual Efficiency. . . . .	0.25	reject
11. CPI-IV. Measures of Intellectual and Interest Modes. . . . .	0.05	accept

to ascertain which linear combination of the eleven variables gave the best prediction of the FUB score.

The regression coefficients for this equation were calculated using standard statistical techniques. The standard errors of these coefficients were also calculated and divided into the regression coefficient to obtain a t value. These quantities were used to test the hypothesis which is concerned with the significance of each variable as a predictor of the FUB score.

The regression coefficients for each prediction variable, with their standard error and level of significance, are presented in Table II. The means, standard deviations, and standardized test means of the predictive variables appear in Appendix D.

The data appearing in Table II are discussed in relation to the hypotheses to be tested in the study as they appeared in Chapter I. The first hypothesis, which predicts a negative correlation between anxiety and behavioral understanding is rejected. There is a negative relationship between these two variables, but the computed t value of -0.76 is not a statistically significant one. The hypothesis predicting a negative correlation between the PARI-I variable, Control and Discipline, and the FUB score is accepted on the basis of the t value of -2.18, which is significant at the .05 level of confidence.

TABLE II

THE REGRESSION COEFFICIENTS, STANDARD ERRORS, AND t VALUES OF THE PREDICTION VARIABLES

Prediction Variables	Regression Coefficient	Standard Error of Regression Coefficient	Computed <u>t</u> Value
1. Anxiety Level . . . . .	-0.18	0.24	-0.76
2. PARI-I. Control and Discipline. . . . .	-0.75	0.34	*-2.18
3. PARI-II. Rejection of Motherhood. . . . .	0.35	0.25	1.37
4. PARI-III. Areas Sensitive to Social Pressure . . . . .	-0.48	0.58	-0.81
5. Grade Point Average . . . . .	-1.65	4.09	-0.40
6. Class Grade . . . . .	4.51	2.74	1.64
7. Laboratory Rating . . . . .	-0.71	0.39	-1.78
8. CPI-I. Measures of Poise, Ascendancy, and Self-Assurance. . . . .	-0.05	0.03	-1.49
9. CPI-II. Measures of Socialization, Maturity, and Responsibility. . . . .	-0.12	0.05	*-2.29
10. CPI-III. Measures of Achievement Potential and Intellectual Efficiency . . . . .	0.25	0.10	* 2.44
11. CPI-IV. Measures of Intellectual and Interest Modes. . . . .	0.05	0.04	1.26

\* significant at the .05 level

The third hypothesis, that assuming the null form with respect to the correlation between the remainder of the prediction variables and behavioral understanding, for the most part was accepted. PARI-II and III variables, with t values of 1.37 and -0.81 respectively, were not significantly related to understanding behavior. Other variables for which the null hypothesis was accepted were CPI-I with a t value of -1.49, CPI-IV with 1.26, GPA with -0.40, and the class grade and laboratory rating variables. The t values of 1.64 and -1.78 for these last two variables were approaching significance. Significant predictive ability was demonstrated for the CPI-II and III variables which had t values of -2.29 and 2.44 respectively. Thus, for these two variables the null hypothesis is rejected.

One of the products of a regression analysis is a multiple correlation coefficient, which provides a measure of the extent to which FUB scores can be predicted from the eleven predictive variables in combination. A multiple correlation coefficient of 0.60 was obtained for these measures. By squaring the multiple correlation coefficient a measure of the amount of variance in the FUB that can be "explained" from the eleven predictive variables in combination can be obtained. This means that only 36 percent of the variance in FUB scores can be "explained" by the eleven independent variables used in this study.



In the process of computing the regression coefficients, the correlations of each of the prediction variables with the criteria and their intercorrelations were computed. Although these data have no direct bearing on the hypotheses tested in this study, they are of general interest and therefore noteworthy. These intercorrelations are presented in Table III.

In inspecting these data it is important to realize that the possible influence of the other prediction variables have not been partialled from the correlation coefficients, and they will therefore vary somewhat from that which would be expected from the regression analysis data.

A number of these correlations are particularly noteworthy. Anxiety correlates most significantly with PARI-II which measured Rejection of Motherhood, and PARI-I which measured Control and Discipline. PARI-II had a positive correlation of 0.37, and PARI-I had a positive correlation of 0.29 with anxiety.

PARI-I, II, and III correlated quite closely with each other, which suggests that the composites did not differentiate very well. PARI-I, which measured control and discipline, showed a negative correlation of -0.32 with the FUB. PARI-III, which measured areas sensitive to social pressure, showed a negative correlation of -0.26

TABLE III

INTERCORRELATION COEFFICIENTS OF THE PREDICTIVE VARIABLES WITH THE CRITERION

	Anxiety	PARI-I	PARI-II	PARI-III	G.P.A.	Grade	Lab R.	CPI-I	CPI-II	CPI-III	CPI-IV	FUB
Anxiety	1.00	0.29	0.37	0.25	-0.17	0.07	-0.02	-0.19	0.05	-0.24	0.16	-0.18
PARI-I		1.00	0.42	0.64	-0.15	0.08	-0.07	-0.04	-0.02	-0.08	0.10	-0.32
PARI-II			1.00	0.51	0.05	0.15	0.11	-0.11	0.01	-0.04	0.08	-0.04
PARI-III				1.00	-0.08	0.07	0.09	0.07	-0.00	0.05	0.08	-0.26
G.P.A.					1.00	0.50	0.38	0.26	-0.07	0.21	0.04	0.14
Grade						1.00	0.70	0.29	-0.02	0.13	0.06	0.05
Lab R.							1.00	0.10	-0.04	-0.05	0.06	-0.10
CPI-I								1.00	0.02	0.53	0.25	0.10
CPI-II									1.00	0.50	0.19	-0.05
CPI-III										1.00	0.35	0.31
CPI-IV											1.00	0.14
FUB												1.00

with the FUB.

The overall grade point average showed a positive correlation of 0.50 with the class grade, 0.38 with the laboratory rating, and 0.26 with CPI-I which measured poise, ascendancy, and self-assurance.

The class grade showed a positive correlation of 0.70 with the laboratory rating, and 0.29 with CPI-I which measured poise, ascendancy, and self-assurance. The intercorrelation of the four CPI classes were more varied than was the case with the PARI composites. CPI-I and CPI-II showed high positive correlations of 0.53 and 0.50 with CPI-III. However, the intercorrelation between CPI-I and CPI-II was very low, i. e., 0.02. CPI-IV showed positive correlations of 0.35 with CPI-III and 0.25 with CPI-I.

CPI-III, which measured achievement potential and intellectual efficiency, showed a positive correlation of 0.31 with the FUB.

## DISCUSSION

This study proposed to identify correlates of behavioral understanding. The investigation was based on the theory that an individual's perception of behavior is heavily dependent on the composite of factors the individual brings to the situation. Thus, eleven predictive variables, i. e., psychological and academic variables a person could bring to a situation, were correlated with the criterion measure, which was an instrument measuring an individual's understanding of children's behavior. The relationships were large enough to achieve statistical significance in only three of the eleven correlations. These results limit the possibility for predicting a person's understanding of children's behavior from his ratings on certain predictive variables. However, it is possible to make some general speculations about the variables that tend to correlate with behavioral understanding.

There are three main issues to be considered in this discussion chapter. The first pertains to the relationships found between the variables and the criterion, the second to the general limitations that may be influencing these results, and the third pertains to the implications for research suggested by the results.

### Evaluation of the Findings

The findings of this study fell in two general categories of expected and unexpected results. In evaluating these results, the reader should bear in mind the general limitations of the study as he considers the findings, e. g., the variables in this study determine only 36 percent of the variance in the FUB, the sample is homogeneous, and the FUB has not yet been demonstrated a reliable measure.

#### Expected relationships.

Class I and III of the CPI, Composite I of the PARI, and the class grade each revealed a relationship with the FUB score that was in the expected direction. Most of the basis for these expectations evolved from related literature. However, in the case of CPI-III, Measures of Achievement Potential and Intellectual Efficiency, the general content of this variable clearly suggested a positive relationship with the FUB. High scorers on Class III of the CPI are described as being individuals capable of achieving in a setting where autonomy and independence are positive behaviors. These people also have attained personal and intellectual efficiency. The above description depicts a student who has developed his potentials and can perceive what behavior is best for varying situations.

The relationship found for this variable allows speculation that this same student could develop and use this perceptive ability to understand children's behavior.

A negative relationship between the FUB and Composite I of the PARI, which measures Control and Discipline, was anticipated from the results of Marshall's study (12). Her investigation concluded that attitudes favoring harsh, punitive control of children reduced the accuracy of students' judgments of social acceptance of children. The negative t value of -2.18 between the FUB and PARI-I indicates that understanding of children's behavior tends to decrease as agreement with statements favoring harsh, punitive control of children increases. High scores on this composite depict individuals whose attitudes reflect a desire to dominate a child by excluding outside influences, trying to know all his thoughts, using strict training and discipline, expecting high loyalty and respect from the child, and fostering dependency by overprotecting.

Students who received a high class grade showed a tendency to score well on the FUB. The t value of 1.64 was approaching significance. This relationship agrees with the results of Horrock's study (8) in which he found a small positive relationship between class grade and ability to apply facts and principles. The criterion on which the grade is based, i. e., the subject's papers and

oral contributions in class, would logically be expected to correlate with a test of a person's understanding of children's behavior, for the papers and discussions call for a certain amount of behavioral understanding. This result also is related to the results of Karuven's study (10), i. e., the FUB score is positively correlated with the amount of class work a student has had in Child Development and Psychology.

A positive t value of 1.49 between the FUB and CPI-I suggests a tendency for students who score well on their understanding of children's behavior also to have a high score on measures of poise, ascendancy, and self-assurance factors. The person scoring high on the CPI-I scale is a person who portrays those personal qualities that underlie status, self-confidence and freedom from self-doubt. It is reasonable to assume that persons possessing such traits as these are comfortable and secure enough with their "selves" to be able to devote more energy to empathizing with and thus developing more understanding of others. Dymond's study (4), discussed in Chapter I, reports a similar relationship between the characteristics described above and empathy.

#### Unexpected relationships.

Class II of the CPI, the laboratory rating, and the anxiety scale revealed relationships with the FUB that were

not expected. A high score on Class II of the CPI, which measures Socialization, Maturity, and Responsibility, depicts a responsible individual who has gained social maturity and self-control and displays permissive accepting attitudes. This individual is concerned about how others react to her, and her actions correspond to the modal pattern. Cline (2) has done a study that is somewhat related. His results suggested that social skills and interests were significantly related to good judging ability. Cline's results and the positive relationship obtained in this study between CPI-III, Measures of Achievement Potential and Intellectual Efficiency, and the FUB, leads to the expectation of a similar positive relationship between CPI-II and the FUB. However, this expectation is not supported. The data reveal a significant negative relationship.

One possible explanation of this finding has to do with the intricate factors really being measured in Class II of the CPI. It is possible that the CPI is obtaining a measure of a person who is strongly motivated by a need to be accepted socially, and the instrument is measuring the surface behaviors this person is using to obtain her goal. This goal is "self" oriented and does not allow for being able to use one's energy to empathize with or understand the behavior of others.



There is a source of error in this study which may have had some bearing on the results of the above relationship, namely the combination of the PARI and CPI scales into composites. These composite scales were used for practical reasons in running the analysis, but such a practice may have masked differences which otherwise would have appeared in the data. Cronbach (3) feels an investigator runs a risk when he gives interpretations to data that were measured by combining components.

Another unexpected result was the negative relationship between the nursery school laboratory rating and the FUB score. This was approaching significance with a negative  $t$  value of  $-1.76$ . The validity of this finding may be questioned however, because of the low degree of confidence that can be placed in the nursery school teachers' ratings of the subjects' performance in nursery school. The criterion used in making this rating, the subjects' interaction with children, is only a one-sided view of the subjects' understanding of behavior. Bloom (1, p. 45) points out that an indication of the subjects' relevant thinking, that is, their private or conscious thoughts relevant to the activity and interaction with the children, should be included in the criterion. This above statement summarizes one of the present research problems, namely, to find methods for taking both interaction and

relevant thinking into consideration when constructing the criterion. Another possible explanation of this unexpected relationship lies in the possibility that the subjects who were rated high on their laboratory performance were students who were observant enough to pick up and use certain actions and expressions used by the teachers without being aware of the reason or purpose underlying these actions. If this were the case, it would lead to spuriously high ratings for laboratory performance.

#### General Limitations of the Study

In this section some of the general limitations of the study that may have influenced the relationships found between the variables and criterion are discussed. One group of limitations pertains to weakness in procedure; another group pertains to certain results coming from the study that cause some difficulty in interpretation.

##### Limitations in procedure.

Three limitations in the procedure of the study that may have influenced the results are (1) the matter of using an instrument, the FUB, that did not have reliability and validity data, (2) the method used for assigning weight scores to the FUB scales, and (3) the controls exercised in the selection of subjects that resulted in a homogeneous

sample. When the data were collected, the FUB was not in its final form. Investigations are currently underway to standardize the FUB.

The method used to determine the scales to be included in the final form of the FUB, and the weight scores assigned to these scales, leaves room for some uncertainty about the validity of the scales. The judgments were made by a group of experts that was limited in number and in scope of background, in the sense that they were nursery school teachers operating under similar philosophies. The judgments might be quite different if persons from a number of related disciplines, e. g., child psychology, clinical psychology, or sociology were included in the listing of experts.

Controls used in selecting the subjects resulted in a homogeneous sample. In one sense this has its advantages, because these controls increase the possibility of making accurate predictions from the results, although it limits sharply the population to which generalizations can be made. Such a small range of ability may be the reason more pertinent relationships between personality and academic variables and behavioral understanding were not evidenced. The low scores on the FUB were not really "poor", but simply lower than the other subjects in the sample. Karuven's study (10) administered the FUB to 412 subjects,

and the scores range from -85 to + 80, while the range of scores for this study was +32 to +80. This small range of scores is not surprising when one recalls that the subjects' exposure to philosophies of Child Development and knowledge of child development in general has been very similar. Also, students still in college for their fourth year are generally well adjusted and above average in scholarship. Perhaps students of this caliber can achieve a certain degree of understanding despite small differences in personal adjustment and attitudes. A wider range in ability and background might find personality characteristics and academic ability very relevant to the degree of understanding obtained.

#### Limitations from results.

Two factors in the results add to the difficulty of interpretation: (1) being able to explain only a small percent of the FUB's variance from knowledge of the prediction variables and (2) finding no significant difference between the three subscale scores of the FUB. The amount of variance in the FUB that can be explained from the eleven prediction variables in combination is 36 percent. This means that the accurate prediction of FUB scores cannot be made from knowledge of these eleven variables. This raises the question of what variables are influencing

the variance in the FUB scores. A precaution must be taken also in not placing too much confidence in a variable that does relate to the FUB, because if more of the variance were measured the observed relationship might be more or less significant.

No reliance could be placed in the subscale scores for the FUB. A pilot study revealed no significant difference between the average scores for the three subscales, so only the total score was used in the study. More recent evidence has indicated that a breakdown of total FUB scores by subscales is a meaningful procedure.

#### Research Implications

The findings of this study, though limited, are not so limited as to suggest that the general hypothesis is irrelevant, that is, that the hypothesis that a reliable and valid score of a person's understanding of children's behavior can be obtained from a film test and that academic or personality variables correlate with this understanding. The findings do emphasize the need for more precise measurement, both of understanding of children's behavior, and its correlates.

The procedure and limitations sections of this study suggest numerous implications for improving the design of this study as it presently stands. The same general

hypothesis could also be tested by using variations of the present design and procedure. For example, (1) the predictive variables might include individual psychological tests; (2) a measure of the subjects' intelligence quotient instead of her GPA could be used; (3) an experimental teaching situation instead of the present laboratory rating could be incorporated into such a study. This would involve an intensive evaluation of students as they interact with children, of their level of sensitivity and something of their general understanding of children's behavior. (4) the type of sample could be modified to include subjects with or without college training, parents as well as non-parents, etc.

## SUMMARY AND CONCLUSIONS

### Summary

The purpose of this study was to investigate the relationship between college students' academic performance and personality characteristics and their understanding of children's behavior. A multiple regression equation was used to determine the correlations of these six predictive variables with a criterion measure of behavioral understanding. The criterion measure was obtained from The Film Test For The Understanding of Behavior (FUB).

Sixty-five Home Economics seniors taking their third course in Child Development were the subjects for the study. The academic performance variables were the student's college grade point average, her class grade in Family Life 425, and a rating of her performance in the nursery school laboratory. Measures of personality variables were obtained from three standardized tests, the California Psychological Inventory (CPI), Taylor's Manifest Anxiety Scale, and The Parental Attitudes Research Instrument (PARI).

### Conclusions

In two respects the predicted relationship between personality variables and behavioral understanding was not

supported. The expected relationship between anxiety level and behavioral understanding was not found; nor was the expected relationship between CPI-II, Socialization, Maturity, and Responsibility, and behavioral understanding. This second relationship took an inverse form, when a positive correlation was expected. All other predictions of relationships between personality variables and behavioral understanding were supported. The predicted correlations between academic variables and behavioral understanding followed expectations in that no significant correlations were found.

Further research along the lines taken in this study probably should concentrate on the relationships between personality variables and behavioral understanding. A first step, however, should be the refinement of a measure of behavioral understanding. In this connection, Bloom's suggestion for using stimulated recall for investigating the thought processes of students should be relevant (1, p. 23-46). If his suggestions were followed, an individual's thought processes concerning children's behavior could be investigated rather than his overt behavior and statements.



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## APPENDICES

## APPENDIX A

### RATING SCALE OF STUDENTS' PERFORMANCE IN THE NURSERY SCHOOL LABORATORY

Key-1 low  
5 high

#### 1. Guidance

Student is aware of where and when she is needed or not needed and can-

a. anticipate, foresee, and forestall situations.

1    2    3    4    5

b. skillfully use positive suggestions, timing of help, giving choices only when choice intended, and interpret feelings and set limits.

1    2    3    4    5

c. keep the physical situation comfortable (boots, coats, caps, etc., light, glare, ventilation) and safe (remove protruding nail or stick).

1    2    3    4    5

#### 2. Relations with children

a. S. is able to make initial contact with children - she can communicate with children and sense their feelings while still maintaining the adult role. She has a natural, easy way of talking children's language.

1    2    3    4    5

b. S. is flexible in her relations with children. She can relate to different kinds of children; she can maintain relations in spite of moods and changing situations, and she can respond to children working in several different areas at once without being confused by this varied activity.

1    2    3    4    5

#### 3. Understanding behavior

S's basic response is to accept the child as he is and try to understand rather than to judge or to assign blame either to child, to parents or to other influences.

1    2    3    4    5

## APPENDIX B

## THE FILM TEST FOR UNDERSTANDING BEHAVIOR

The statements in this booklet are statements about the episodes of behavior you will observe in the film. Some of these statements are simply interpretations of what is happening; some focus on ways of dealing with what is happening; and still others involve predictions of what the child will be like in the future.

You are to read each of these statements and indicate whether you agree with it, disagree with it, or are uncertain about it. You are to indicate your agreement or disagreement by choosing one of the following categories.

A	Ah	U	Dh	D
Agree	Agree, but with some hesitation	Uncertain	Disagree, but with some hesitation	Disagree

This means that if you clearly agree with a statement, choose A for your response. If you are not able to agree completely with a statement, but you agree with it more than you disagree with it, choose the category Ah. The reverse is true for indicating disagreement. If you are so uncertain in your knowledge that you cannot agree or disagree with a statement, or if there is no basis in what you have observed for making a decision about a statement, you choose category U.

You are to indicate your category choice by blackening the appropriate space on a separate answer sheet. This is illustrated below:

## EPISODE 1

	A	Ah	U	Dh	D
1.	■	::	::	::	::
2.	::	::	::	::	::

It is important that you respond to every statement. If you should change your mind after you have marked an answer, erase the first mark completely and mark again. Remember, DO NOT MARK IN THIS BOOKLET.

## EPISODE 1

1. It is common for children to behave like this in situations which are unfamiliar to them.
2. If an adult would help the child take part in activities rather than just let him sit and watch, he would adjust to the situation more rapidly.
3. Although the child isn't really using the pail and brush, they probably serve as props which help him feel more secure.
4. An adult should suggest that the child move to a place where he can play with his bucket and brush without distraction.
5. Within a week or so the child will play freely with other children.
6. This child is not as well adjusted as a child who meets new people or enters new situations without hesitation.

## EPISODE 2

1. Whenever a child uses paint this way, it is a good indication that he is emotionally disturbed.
2. An adult should show the child what the paint is for.
3. The child probably is finding out how paint feels more than she is expressing pent-up feelings.
4. Using paint in this way will nearly always make a child feel guilty.
5. It is likely that the child isn't allowed to be messy at home.
6. If a child is allowed to do things at nursery school which he is not allowed to do at home, he will soon become confused about authority.

## EPISODE 3

1. The child seems to be well-adjusted.
2. An adult should suggest that the child do something else.
3. The parents of the child should teach him that it is important to do as the others in a group are doing.
4. An adult should help the child stand on the plank and take part in the rhythms.
5. It is likely that the child is insecure.
6. The child seems to be enjoying himself even though he is not doing as the others are doing.

## EPISODE 4

1. The child really didn't need the help that was given.
2. The child was becoming upset over not being able to get her trousers on by herself.

3. The child's persistence in trying to put on her trousers is unusual for this age.
4. The adult should use this situation to teach the child to be more efficient in dressing.
5. Using the bathroom in front of other people will not hinder the development of a child's modesty.
6. The next time the child has a problem in dressing she is apt to want help from an adult.

#### EPISODE 5

1. The way the child smears the paint on the leaf is typical of this age.
2. The experience would have been more valuable to the child had he made a good print of the leaf.
3. If the child really had been interested in what he was doing, he would have shown more feeling about not making a good picture.
4. Apparently, the child doesn't care that his picture is a poor one.
5. An adult should have helped the child make a better picture.
6. When the child realized that there were two pieces of paper, he really knew that a print of the leaf wouldn't be on the top one.

#### EPISODE 6

1. If a child of this age is allowed to eat with his fingers, he is apt to be slow in learning proper table manners.
2. The child seemed to enjoy his food as much when he was eating with his fork as he did when he was eating with his fingers.



3. A child of this age should not be allowed to wipe his messy hands on his trousers when eating.
4. It seems to be easier for the child to eat with his fingers than with his fork.
5. The adult should be sure that the child finishes the food on his plate before he leaves the table.
6. It is necessary for children of this age to understand that mealtime is a time for eating rather than a time for playing or just looking around.

#### EPISODE 7

1. It is common for children of this age to feel strongly about losing possession of something as unimportant as leaves.
2. The girl should be made to realize that she should not cry over something as unimportant as this.
3. The boys who took the leaves from the wagon should be punished.
4. The boys took the leaves from the girl's wagon probably because they didn't like her.
5. The girl is apt to be upset for the rest of the morning.
6. Children should be encouraged to express their feelings when they first occur.

#### EPISODE 8

1. It is likely that the child is well adjusted, since he is so free and confident in his body movements.
2. The child has good control of his small muscles as well as his large ones.
3. As an adolescent, the child is apt to excel in athletics.

4. The child is ready to use older children's play equipment.
5. An adult should have been near the child when he was playing on the bars.
6. The child seems to derive a great deal of satisfaction from physical activity.

#### EPISODE 9

1. Leaving the girls to settle their differences by themselves was a good idea.
2. It is likely that the kind of activity that was going on around the girls influenced the way they behaved toward each other.
3. It is likely that the girl who took the toy fights a lot with other children.
4. Some children behave in hostile, aggressive ways when they feel unsure of themselves.
5. The girl who took the toy should be punished.
6. An adult should help the timid girl stand up for her rights.

#### EPISODE 10

1. Assuming that the children are the same age, it is likely that the boy is more intelligent than the girl.
2. The girl seems bothered by not being able to work the puzzle.
3. Probably the boy and girl have similar intelligence but differ in the amount of practice they have had in working puzzles.
4. The boy gets so tense when he is working a puzzle that he should not be allowed to do this often.

5. An adult should help the girl work the puzzle.
6. It is not a good idea to let a child experience failure as this girl did.

ANSWER SHEET FOR THE FILM TEST  
FOR UNDERSTANDING BEHAVIOR

A	Ah	U	Dh	D		A	Ah	U	Dh	D
Agree	Agree, but with some hesitation	Uncertain	Disagree, but with some hesitation	Disagree						

---

EPISODE 1						EPISODE 4					
A	Ah	U	Dh	D		A	Ah	U	Dh	D	
1.	+2	+1	0	-1	-2	1.	0	+2	+1	-1	-2
2.	-2	-1	0	+1	+2	2.	-2	-1	0	+1	+2
3.	+2	+1	0	-1	-2	3.	-2	-1	0	+1	+2
4.	-2	-1	0	+1	+2	4.	-2	-1	0	+1	+2
5.	-1	+1	+2	0	-2	5.	+2	+1	0	-1	-2
6.	-2	-1	0	+1	+2	6.	-2	0	+2	+1	-1

EPISODE 2						EPISODE 5					
1.	-2	-1	0	+1	+2	1.	+2	+1	0	-1	-2
2.	-2	-1	0	+1	+2	2.	-2	-1	0	+1	+2
3.	+2	+1	0	-1	-2	3.	-2	-1	0	+1	+2
4.	-2	-1	0	+1	+2	4.	+2	+1	0	-1	-2
5.	-2	0	+2	+1	-1	5.	-2	-1	0	+1	+2
6.	-2	-1	0	+1	+2	6.	-2	-1	0	+1	+2

EPISODE 3						EPISODE 6					
	A	Ah	U	Dh	D		A	Ah	U	Dh	D
1.	-1	+1	+2	0	-2	1.	-2	-1	0	+1	+2
2.	-2	-1	0	+1	+2	2.	-2	-1	0	+1	+2
3.	-2	-1	0	+1	+2	3.	+2	+1	0	-1	-2
4.	-2	-1	0	+1	+2	4.	-2	-1	0	+1	+2
5.	-2	0	+2	+1	-1	5.	-2	-1	0	+2	+1
6.	0	+2	+1	-1	-2	6.	-2	-1	0	+1	+2
EPISODE 7						EPISODE 9					
1.	+2	+1	0	-1	-2	1.	-2	-1	0	+1	+2
2.	-2	-1	0	+1	+2	2.	+2	+1	0	-1	-2
3.	-2	-1	0	+1	+2	3.	-1	+1	+2	0	-2
4.	-2	-1	0	+1	+2	4.	+2	+1	0	-1	-2
5.	-2	-1	+1	+2	0	5.	-2	-1	0	+1	+2
6.	+2	+1	0	-1	-2	6.	+2	+1	0	-1	-2
EPISODE 8						EPISODE 10					
1.	-1	+1	+2	0	-2	1.	+2	+1	0	-1	-2
2.	-1	+1	+2	0	-2	2.	-2	-1	0	+1	+2
3.	-1	+1	+2	0	-2	3.	-1	+1	+2	0	-2
4.	0	+2	+1	-1	-2	4.	-2	-1	0	+1	+2
5.	-2	-1	0	+2	+1	5.	-2	-1	0	+1	+2
6.	+2	+1	0	-1	-2	6.	-2	-1	0	+1	+2

## APPENDIX C

EXPLANATION OF STUDY AS PRESENTED TO  
FAMILY LIFE 425 STUDENTS

My purpose in coming before you is to tell you about a research project I am conducting for my thesis and to request your help in this project. There are differences in people's understanding of children's behavior, and my purpose is to see if I can find any relationship between the personality characteristics of persons like yourselves and your understanding of children's behavior. During a regular class period a test will be given to measure your understanding of children's behavior. This test takes the form of film episodes of children's behavior in the nursery school, and you are to agree or disagree with statements relating to the episodes. Three other tests will give measures of your individual personality characteristics. This phase of the project will require  $1\frac{1}{2}$  to 2 hours of your time. For those of you who are willing to cooperate on this, I will set up a number of sessions to administer the tests at your convenience. The results of all your tests will be used strictly for research purposes. No one else will see the results of your test scores, and the data will not have any relation to your 425 grade. Personal benefits you may receive by cooperating in this

study are (a) satisfaction in helping with a research project, (b) the film test offers you a good chance to summarize and evaluate what you feel about children's behavior, and (c) if you are interested in the results of this study, I will send you a summary.

# APPENDIX D

## MEANS, STANDARD DEVIATIONS, AND NORMS FOR THE VARIABLES CORRELATED WITH THE FUB

Prediction Variable	Mean	Standard Deviation	Standardized Test Mean
1. Anxiety Level . . . . .	13.21	5.91	14
2. PARI-I. Control and Discipline. . . . .	22.66	4.94	
3. PARI-II. Rejection of Motherhood. . . . .	26.30	5.78	
4. PARI-III. Areas Sensitive to Social Pressure. . .	9.93	2.99	
5. Grade Point Average . . . . .	2.72	0.35	
6. Class Grade . . . . .	2.98	0.73	
7. Laboratory Rating . . . . .	23.10	4.71	
8. CPI-I. Measures of Poise, Ascendancy, and Self-assurance . . . . .	328.53	39.57	318
9. CPI-II. Measures of Socialization, Maturity, and Responsibility . . . . .	309.80	28.76	305
10. CPI-III. Measures of Achievement Potential and Intellectual Efficiency . . . . .	167.69	18.80	164
11. CPI-IV. Measures of Intellectual and Interest Modes . . . . .	165.21	28.75	159