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1972

**MALE CHILD CARE WORKERS' PERCEPTIONS OF THE
PERSONALITIES OF BOYS IN RESIDENTIAL TREATMENT**

by

RICHARD THOMAS MONAHAN

**A dissertation submitted to the Graduate Faculty
in Psychology in partial fulfillment of the
requirements for the degree of Doctor of
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1972

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

MALE CHILD CARE WORKERS' PERCEPTIONS OF THE
PERSONALITIES OF BOYS IN RESIDENTIAL TREATMENT

by

Richard T. Monahan

Advisor: Professor Mary Engel

This dissertation grew out of the author's experience as a child care worker in a residential treatment center. It was observed that child care workers had differing perceptions of the children they worked with. This was felt to be in part a function of their individual personalities.

Four male child care workers gave their perceptions of the personalities of nine boys that they all worked with for at least six weeks. This was accomplished through a specially devised instrument for this research, the Child Personality Paired Comparison Instrument. They then rated the children along a dimension of Liking. Two supervisors rated the child care workers for Effectiveness. These ratings were unreliable and not used in the data analysis. Each child care worker gave two self-descriptions, one of his childhood, the other of his adulthood (present) personality. Finally each child care worker participated in a personal interview which included inquiry into how he became involved in child care work, his attitudes toward several controversial issues in child care work, his reactions to several critical incidents, more self-description, and finally a self-rating for

Effectiveness with the children. These interviews were transcribed and rated for childhood and adulthood stress on the same sixteen personality variables contained in the Child Personality Paired Comparison Instrument. These ratings were done by an outside clinical judge.

It was hypothesized that the child care workers would have highly consistent descriptions of the children but weak agreement among each other. The data supported this.

It was predicted that some of this low agreement could be accounted for by the personalities of the child care workers. It was found that the amount of stress the group of child care workers had on a variable was inversely related to the inter child care worker reliability on that variable. This relationship was stronger with the adulthood than with the childhood stress ratings. It also was stronger when stress was correlated with the reliability of the rating of a variable in the individual child than when correlated with the overall reliability in all the children.

It was predicted that the child care workers' perceptions of a tenth child whom they had known for only two weeks would be more similar to their self-descriptions than those of the nine other children they had known for longer than six weeks. The data supported this hypothesis. The child care workers were asked six months later to describe this tenth child again. Their second descriptions of him were found to be significantly less similar to their own self-descriptions than their first descriptions. It was concluded that when a child is little known the child care workers over-attribute their own consciously recognized personality qualities to the child.

Finally it was predicted that there would be significantly positive intercorrelations between the dimensions of Liking, Self-Rated Effectiveness, and Similarity for each child care worker. Similarity was calculated by correlating the child care workers' descriptions of the children with their self-descriptions. The data revealed that this predicted pattern was not universal. Two different patterns of significant intercorrelations appeared. The results were reanalyzed according to a method used by Rosen (1963), which restricts the same hypothesis to children at the extremes of the dimensions. Descriptive statistical comparison of this research's and Rosen's results was made and there were no substantial contradictions.

The results were discussed in relation to some of the literature on psychotherapists and countertransference as well as the literature on child care work theory. Recommendations were made.

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INTRODUCTION

This research grew out of the author's own experience as a child care worker in a residential treatment center. The author observed that child care workers disagreed in their perceptions of the personalities of the children they worked with. Different child care workers liked different children. One child care worker felt effective with one child but ineffective with another. A second child care worker felt the opposite. A fictional example will illustrate this.

A child named Jim is perceived by child care worker I as aggressive and hostile, manipulative and devious. He does not like to work with Jim. He finds himself ineffective in dealing with him. Child care worker I perceives another boy Bill withdrawn, cooperative, and lacking in aggression. He likes Bill and feels he is quite effective with him. Child care worker II agrees with child care worker I that Jim tends to be manipulative and devious but feels he is more likely to be cooperative and fair-minded. He sees a great deal of self-hatred. He finds he does not particularly like or dislike him and does not feel particularly effective or ineffective with him. Child care worker II agrees with child care worker I that Bill is withdrawn but adds that he is rigid in his thinking and in his interpersonal relationships. He does not like working with the boy and feels quite ineffective.

We have here two child care workers with different perceptions of two boys and different feelings about working with them. This is typical of the differences that exist among the staff in a residential treatment center. The author hypothesized that such

differences must be in part a function of the personalities of the child care workers. Child care workers I and II must have had different childhood and/or adulthood personalities.

Review of the Literature

Few empirical studies of child care workers have been published. These will be presented in detail. Following these will be a short review of the literature discussing theoretical issues of child care work. Finally there will be a brief survey of related research in the broader field of person perception.

Empirical Research with Child Care Workers

Elton McNeil and Robert Cohler (1957, 1958) published results of a study of child care workers' personal difficulties with aggression and their ability to deal with the aggressive outbursts of the children they worked with in the University of Michigan Fresh Air Camp, a two month camp for emotionally disturbed children. Their general hypothesis was that "success in the management of aggressive children bears a predictable relationship to the degree of hostility present in the fantasy productions of the adult child care worker" (1958, p. 452). Aggression was measured by a scrambled sentences test constructed by Watson, Pritzker, and Madison and by the scoring of spontaneous stories to four TAT cards (3BM, 8BM, 18BM, and 18GF). On the basis of their scores on these two tests, thirty-three child workers were divided into three groups of High Aggression, Medium Aggression, and Low Aggression. Child care workers were rated for effectiveness by their peers. Fifteen of the child care workers

were observed handling aggressive incidents for their effectiveness in dealing with the situation and for the degree of acceptance by the child of the solution.

The TAT measure of aggressiveness bore a significant relationship to the peer's effectiveness ratings with the Low Aggression child care workers rated most successful while the High Aggression child care workers rated least successful. Child care workers "who were rated low in aggression on the TAT tended to be more effective in resolving hostility and in having the child feel that he was dealt with reasonably and fairly. In general, counsellors, (child care workers) rated High in aggression received no more than a Medium or Low rating of effectiveness and found a similar degree of acceptance by the children" (1958, p. 457).

In summary McNeil and Cohler have presented good evidence that child care workers with low aggressive fantasy are more effective with aggressive outbursts in the children. Unclear though, as the authors point out, is whether the absence of aggressive fantasy means "low intensity of aggressive needs or intense needs coupled with determined self-control" (1958, p. 458).

Dauids (1969) did a correlational study in which he tried to see if there were intellectual and personality factors related to effectiveness. He used psychological tests, the Rorschach, the TAT, and the Wechsler-Bellevue Intelligence Scale to predict supervisors' evaluations of personality and behavior of thirty-four child care workers. He found his (two) supervisors' ratings quite reliable. The average IQ of the child care workers was 120. There were no significant correlations between the IQ's and personality or job

effectiveness. Favorable personality and job effectiveness were significantly correlated.

Jacqueline Rosen (1963) did an empirical study that explored the interrelations of three dimensions: similarity of child to the child care worker's own personality as a child, his liking for the child, and his feelings of effectiveness with the child. All of her data on twenty child care workers were obtained directly from extensive interview material. No outside sources were employed. All of the workers knew all of the twenty-four children in the study. More presentation and discussion of the Rosen study will be given in the DATA ANALYSIS and DISCUSSION chapters. However at this point it will be helpful to present her general findings.

(S)trong positive feelings toward a child were associated with a worker's perception of that child as being similar to his childhood self. . . . (S)trong negative feelings toward a child were associated with a worker's perceiving the child as dissimilar to his childhood self. . . . (S)trong positive feelings toward a child were associated with a worker's expressed ability to understand and communicate with him. . . . (S)trong negative feelings toward a child were associated with a worker's inability to understand or communicate with him (p.260-261).

Theoretical Discussion

Aside from the above empirical research articles there have been a considerable number of papers in the literature discussing the importance of the personality of the child care worker. There is some dispute as to how important intrapsychic needs of the child care worker are. Bruno Bettelheim's (1955, 1966) position is at one extreme; Larry K. Brendtro's (1969) is at the other. Bettelheim (1966) feels that what is most important in the training of the child care workers is "not preparing them for the execution of particular tasks, but helping them to develop deeper insights into themselves, into

attitudes and behaviors and to trust that these will benefit both them and their work for and with the patients" (p. 694). Brendtro is at the other end of the dispute. He emphasizes that "it would be a mistake to consider them only in the light of individual personality dynamics" (1969, p. 220ff). He lists seven issues that are "encountered in most institutions by most child care workers": the need to conform to institutional policy, the need to satisfy supervisors and superiors, the need to be accepted by co-workers, the need to adhere to personal philosophy, the need to control, the need for success with a child, and the need to be accepted by the children. Although Brendtro holds that these "roadblocks to therapeutic management" are a function of the nature of child care work in an institution, he does agree that the personality of the child care worker is most important. He insists that personal functioning problems which he calls roadblocks should be examined in their proper context, that is in their interaction with the extra-personal pressures of the job. The rest of the authors of papers on child care work fall somewhere in between Bettelheim and Brendtro.

Close to Bettelheim's position is Hyman Grossbard (1963).

Grossbard stresses the importance of self-awareness of the child care staff and distinguishes it from the self-awareness requirement of caseworkers:

Although the self-awareness for cottage parents (child care workers) is of a more factual and accessible nature than that required, for instance, by caseworkers, it has special characteristics that, in certain respects, make it more complex and more difficult to sustain and practice. Unlike the social worker's role and function, which are expressed through certain well structured and identified activities, the cottage parent's role is diffuse and all pervasive. His responsibilities cross at every vital point of the child's life, and his own daily experiences are continually crisscrossed by the

activities of the children in his care. Consequently, self-awareness cannot be confined to the specific delineated areas where his child care activities take place. It has to be available and exercised at every point of contact with the child - planned or unplanned (p. 16).

Close to Brendtro's position is Fritz Redl. Although one of the founders of residential treatment in this country and psychoanalytically trained, Redl speaks surprisingly little on the personality of child care workers. He gives much practical advice on how to manage and treat disturbed children in his classic books Children Who Hate and Controls From Within, but there is no discussion on the individual treating person's personality. In a more recent book When We Deal With Children he strongly, but briefly, admits its significance but cautions that it is not all important. "(S)ometimes other milieu items may obliterate (its) impact" (1966, p. 86). Second he warns that strong feelings and attitudes toward the children are often responses to reality of the child's behavior. When Redl discusses what a group leader should observe in his group of children he does add that the group leader should examine his own feelings about the group. This creates insight into the group process as well learning "how to handle our feelings before their effects reach the patients" (1966, p. 345).

At a national conference of leading child care workers organized by Morris Mayer (1969) child care workers pointed out that personality requirements are very important in their work:

In addition to commonly acknowledged criteria such as maturity, stability, and flexibility, the participants emphasized a capacity to endure frustration, work independently, and tolerate anxiety. High value was placed on a worker's maintenance of self-control.... They cited the importance of awareness of their own emotional responses, particularly if the children's behavior aroused personal reactions.... They were unanimous in stating that honesty with oneself helped the workers respond realistically to the children.... Sound judgments were felt to be made most consistently when the child care worker remained aware of his own emotions.

Some of the other authors who have discussed the importance of the personality of child care workers are Ekstein (1966, p. 413-457), Hirschberg and Mandelbaum (1953), Lourie and Schulman (1952), McNeil and Morse (1964), and Maier, Hilgeman, Shugart, and Loomis (1955). Noteworthy is that all of the above authors including Brendtro and Redl agree that the personality of the child care worker is important in his functioning with the child.

Most of the above literature is primarily concerned with the effects of the personality of the child care worker on the management and treatment of children. This thesis will examine the influence of the child care worker's personality on his effectiveness with the child, but will place major emphasis on how it effects his perception of the child. This emphasis reflects the author's background as a clinical psychologist, a diagnostician, as well as a therapist. However it also reflects a deep conviction that one cannot separate diagnosis from treatment. As anyone is treating, he continues to perceive. An examination of a child care worker's perceptions reveals much of what is going on in treatment.

For obvious reasons the literature on person perception is applicable here. Review will be restricted to studies of perception of people whom the perceiver interacted with. Numerous so-called laboratory studies have been done where the perceiver does not interact with the perceived. It is the author's strong feeling that this design is artificial and, hence, without any potential for profitable application to real life situations, such as child care work. This

viewpoint is shared by two prominent leaders of person perception theory and research, Renato Tagiuri and Franz From. Tagiuri (1958) distinguishes simple interaction from double interaction. These are different research areas. Simple interaction is a judge's perception of another person whom he does not interact with. Double interaction is a judge's perception of another person whom he does interact with. The clinician and his patient or the child care worker and a resident child are examples of double interaction. From (1971) says that:

it does not seem of decisive importance whether we participate in the action or not, but rather whether we participate in such a manner that our personal status is affected - whether what takes place is of importance to our self-esteem, whether we perceive the action of the other person as positive or negative toward ourselves. . . an involvement of our ego and its status will usually mean (much more than the purely external participation in the action situation) that we perceive the mental life of the other person in a special way which is different from the way in which it appears to us when we take the role of the spectator and experience the actions from the point of view of interest in such 'play-acting' (p. 122).

Anyone who has been a child care worker, therapist, or teacher knows that working with disturbed children never takes the role of the spectator but that it constantly entails involvement of the ego.

There has been some research done on therapists' and diagnosticians' impressions of patients they worked with (Fiedler, 1951; Filer, 1952; Harway, 1959; Robinson, 1954). Fiedler made a Q sort from statements from Murray's Explorations in Personality. This was sorted by the patient to describe himself, by the therapist to predict how the patient described himself, by the therapist to describe himself, and how he, the therapist, would ideally like to be.

Several scores were found. (a) Real Similarity (RS): between therapist's and patient's self-sorts. (b) Assumed Similarity (AS): between the therapist's self-sort and his prediction of the patient's

self-sort. (c) Real Similarity to the Therapist's Ideal (RSI): between the therapist's ideal self-sort and the patient's self-sort.

(d) Assumed Similarity to the Therapist's Ideal (ASI): between the therapist's ideal self-sort and his prediction of the patient.

Unwarrented Assumed Similarity was calculated ($UAS = r_{AS}^2 - r_{RS}^2$) and Unwarrented Assumed Similarity to the Ideal ($UASI = r_{ASI}^2 - r_{RSI}^2$).

Fiedler predicted that good therapists would have positive UAS, since good therapists will not manifest negative feelings toward their patients; and negative UASI, since good therapists will like their patients more than they will demand from their patients in return.

In a study of twenty-two therapists this was found to be generally true. Although an interesting approach to the problem of measuring countertransference, there are shortcomings. UAS and UASI are really not countertransference measures as Fiedler maintained, but rather "Unwarrented Assumed Similarity." This is because they compared global Q sorts to each other, rather than specific feelings or impressions. Fiedler did not attempt to see what areas in the individual therapist's personality caused a high UAS.

Filer's study was concerned with two problems: (a) whether different examiners emphasized different personality variables in their case reports, and (b) whether such differences related to measures of the examiner's personality. Variables measured in the case reports were: hostility, hostility turned outward, passive-dependency, and feelings of inferiority. The variables for which the examiners' behavior was rated were: ascendance, depression, intropunitiveness, extrapunitiveness, and inpunitiveness. Significant findings were obtained but the sizes of the significant relationship were not reported.

Harway did a study on psychotherapists' personality perceptions of their patients. He sought answers to several questions, only one of which was: "Do the therapist's own characteristics influence his perception of the patient and the goals that he set for the patient?" He used the Edwards Personal Preference Schedule for several different ratings. He had the therapists rate themselves, and the therapists predict how the patients were simultaneously rating themselves (the patients). He used nine therapist-patient pairs. He found "no consistent relationship between the relative strength of the patient's needs and those of the therapist," nor did he find a "consistent relationship between the relative strength of the needs for the therapist himself and the relative strength that he ascribes to them for the patient."

Robinson's study involved the analysis of thirty case reports of each of three graduate students in clinical psychology on their internship. The patients had been assigned to therapists on a rotated basis, so that there were no systematic differences in patient samples. The reports were rated along four variables: dependence, independence, aggression, and abasement. Significant differences were found. However the personalities of the clinicians were not studied. Therefore the individual differences in the reports could not be explained in terms of specific differences in the clinicians' personalities.

A common criticism can be made about all of the above studies. In no case did all of the perceivers know all of the perceived. In Filer's and Robinson's studies, patients were assigned randomly to one intern each; in Fiedler's and Harway's studies, therapists rated

only their own patients who were assigned to them on an individual basis. This limitation in design makes it very difficult to determine whether the differences in the perceptions of the clinicians are clearly a function of their personality or a result of the random assignment of the patients to clinicians. It also limits examination to overall perception of a personality variable rather than perception of a variable in a given patient. Here the unreliability of clinical judgements has practical implications. How reliable is this clinician's judgement of this patient? Would another clinician say the same of this patient?

A study by L. C. Miller (1964) studies the reliability of Q-sort ratings of disturbed children where several adults rated a common group of children. He found very low reliability. His study was limited in that he did not explore the adults' personalities as a potential explanation for the unreliability.

There have been numerous studies done on teacher perceptions of children, but none known to the author have studied both the teachers' personalities and used a common group of children (Beilin, 1959; Ellis, 1936; Hildreth, 1928; Hunter, 1957).

This thesis is a study of the effects of the child care worker's personality on his perception of the children he works with. Unlike the above studies with the exception of Jacqueline Rosen's, this thesis uses a group of child care workers rating a common group of children they all work with. The child care worker's personality is studied through self-report and a personal interview.

HYPOTHESES

Although design and method are discussed in detail in the next chapter it is necessary to give an outline before the hypotheses are presented.

Four male child care workers described a group of nine boys whom they all worked with. There was no special assignment of staff to children so that exposure to the children was equal. They used the specially designed Child Personality Paired Comparison Instrument containing sixteen variables (characteristics of children) for their descriptions. The child care workers also compared the children according to how much they liked the children. They then gave self-descriptions of themselves as a child and as they were at the time of the research through the same Instrument they used to describe the children. They were given a personal interview in which they were asked (a) how they became involved in child care work, (b) their opinions about several controversial issues in residential treatment, (c) what they would do in several critical incidents, (d) how much stress they felt in each of sixteen personality variables as a child and as an adult, (e) with which children they felt most and least effective. These interviews were rated by a clinical psychologist for stress on each of the sixteen variables used by the child care workers to describe the children. Stress was rated for both the childhood and adulthood of the child care workers.

Hypotheses were organized into three categories. The first (I) predicted what the reliability of the ratings (personality descriptions of the children) would be, the second (II) what factors would influence the ratings, and the third (III) that liking, effectiveness, and

similarity to the children would be interrelated.

At this point all of the hypotheses will be presented. Following this will be an explanation of how each of the hypotheses was developed.

I. Reliability of the Ratings

I(a). It is hypothesized that the individual child care worker will have consistent perceptions of each child. Therefore it is predicted that the individual child care worker's descriptions of each child will have high reliability.

I(b). It is hypothesized that the child care workers will have substantially low agreement among themselves about the children. Furthermore it is predicted that this between child care worker agreement will be substantially lower than individual consistence (Ia). In other words they will have rather clear descriptions of how they individually perceive the children but will have rather low agreement among themselves.

I(c). It is hypothesized that the child care workers will have substantially low agreement among themselves in their perception of each of the sixteen variables, and, furthermore, this agreement will vary greatly across variables.

II. Factors Influencing the Reliability of the Ratings

II(a). It is expected that the child care workers will differ among themselves in the importance they rate a variable in their own self-descriptions. It is also expected that the child care workers will disagree about some variables in the children more than about

other variables (Ic). It is hypothesized that the less the child care workers differ on a variable in their self-descriptions, the more they will agree about the importance of the same variable in the children.

II(b). The personality variables which are stressful in the child care worker's own personality will be over or under emphasized in his perceptions of the children.

II(c). On those variables on which there has been a lessening of stress in the child care worker's own personality from childhood to adulthood there will be an over or under emphasis in his perceptions of the children.

II(d). It is hypothesized that the less a variable produces stress in the personalities of the child care workers as a group, the more agreement they will have among themselves in the importance of this variable in the children.

II(e). In general it is believed that over-identification is strongest when there is a minimum of real cues. Does this apply to the child care workers' perceptions of children? That is, are the perceptions of children less known to the child care worker more like his own personality than those of children well known?

III. Intercorrelations of Liking, Effectiveness, and Similarity

III(a). It is hypothesized that there will be statistically significant positive intercorrelations between the following dimensions: (1) how much the child care worker likes the child, (2) how effective he feels with the child, and (3) the similarity of the child care worker's perception of the child and his perception of his own personality.

III(b). It is hypothesized that the child care workers' ratings of the two children most liked and the two children least liked together contribute more to an estimate of the child care workers' self-rating (as a child, as an adult) than four other children contribute. In statistical language the multiple correlation of the four extreme children (most liked and least liked) with the self-rating will be higher than the multiple correlation of four other children with the self-rating.

I. Reliability of the Ratings

As a child care worker the author was particularly impressed by the amount of disagreement among the staff in the importance each would place on various personality characteristics in individual children. For example one worker might place self-hatred much higher than aggression when discussing a child, another worker would feel the opposite. What was striking about a discussion between two child care workers was each's insistence that his opinion was the only correct one and that he held to this opinion over time. Disagreement among child care workers did not appear a function of a lack of thinking about the child or an inability to do so, but rather a function of consistent but idiosyncratic perceptions by the individual child care worker. From this observation as a child care worker the author made two hypotheses, I(a) and I(b). It was further observed that there were some characteristics (variables) that were easier to agree upon than others but that in general there was low agreement in describing how important a variable was for a child. Hence hypothesis I(c).

II. Factors Influencing the Reliability of the Ratings

The first hypothesis in this category, hypothesis II(a), is global and a logical derivation of the following: the more similar to each other the child care workers are on a variable the more likely that they are going to agree on its presence in the children. For example if it is true that high aggression in a perceiver influences him to see a lot of aggression in the perceived, then one would expect that if all the child care workers were high on aggression, they would all agree that there was a lot of aggression in the children. If on the other hand they differed markedly in their own aggression, then one would expect that they would greatly differ in the amount of aggression they saw in the children. This hypothesis, II(a), uses the self-ratings as the data for child care worker personality. Any conclusions must be limited by this type of data which is strictly conscious self-report.

The next hypothesis, II(b), follows from the clinical hypothesis that emotional stress causes one of two biases in perception to take place. First a particular stress in a person can cause a denial of the presence or importance of a particular characteristic in another person, or it can cause an excessive emphasis of this characteristic. Stress is measured here by a clinical psychologist's ratings of the interviews. Hence the stress ratings are more than conscious self-report but are still limited by what the child care workers present in the interviews.

Hypothesis II(c) is similar in its origin to II(b). If a child care worker has overcome stress in a variable from childhood to adulthood it may be overemphasized because of overidentification with

the child. Overcoming a variable from childhood to adulthood may result in an underemphasis because reexperiencing the variable through another person is too painful. This hypothesis implies that the "lessening of stress" has not resulted in a complete "working through" and rests on the author's assumption that complete working through is not possible.

Hypothesis II(d) is similar to II(b) except that the hypothesis is referring to group reliability rather than individual emphasis; similar to II(a) except that the stress rating is based on clinical rating of an interview rather than self-report. Basically it follows from the author's general hypothesis that the more stress the members of a group have on a certain variable, the more likely they are going to be unable to agree on its presence and importance in other people.

Hypothesis II(e) is based on what Henry Murray (1938, p. 531) states is "the well-recognized fact that when a person interprets an ambiguous social situation he is apt to expose his own personality as much as the phenomenon to which he is attending." Franz From (1971, p. 128-129) applies this to person perception. When little is known about a person our inner personality exercises a dominating influence on our impressions of the vague person. This hypothesis will be tested by comparing the child care workers' self-ratings to their descriptions of a child they knew relatively little. The self-ratings are conscious descriptions of the self. Hence this is not a projection hypothesis. Projection in its classical definition refers only to material which is unconscious to the perceiver about himself that he ascribes to the perceived.

III. Interrelations of Liking, Effectiveness and Similarity

Hypothesis III(a) follows from a pilot study done on another child care worker not part of the study and on the author himself. It was predicted that there would be significant positive correlations for each of the intercorrelations. Unknown to the author at the time of the data collection is a study by Jacqueline Rosen (1963) which has been referred to in the Review of the Literature. Rosen predicted the same positive correlations and her data are in support of her hypotheses. It is fascinating that the hypothesis III(a) which is based on personal experience is so close to Rosen's.

Hypothesis III(b) is based on the theory that strong emotional feelings for a child, either positive or negative, were more related to children who were more similar or dissimilar to the child care worker than children less similar or dissimilar.

DESIGN AND METHOD

Setting

The data was collected at the New England Home for Little Wanderers, 161 S. Huntington Avenue, Boston, Massachusetts. Among its several services is a residential treatment center for emotionally disturbed children (ages seven through twelve). On the average there are ten boys and ten girls living in the residence, called the Child Care Center. The boys and girls live on separate dormitories in the same building. Each child is assigned a caseworker and/or a psychotherapist. In addition to caseworkers, therapists, and teachers, there is a core staff of usually ten child care workers (five men and five women). At the time of the data collection there was a staff of only four male child care workers. The men spent the greater part of their time with the boys; the women with the girls. A psychiatric social worker directed the Child Care Center. A resident supervisor, a child care worker profession, served as the mother figure. There were two male assistant supervisors, also child care workers by profession, who were responsible for scheduling and on-the-spot supervision of the child care staff. The staff worked an equal variety of hours and were obliged to work with all of the children. All of the staff had college education and some had bachelor degrees. The environment of the residence was considered the primary therapy, therefore child care workers were considered important staff members. Compared to other residential treatment centers in New England, salaries were high. There was a theoretical frame of reference, or tradition, that individual child care workers not be assigned to individual children. This was largely a result of

a tradition dating back to a former Director of the Child Care Center who felt that individual assignment would cause negative transference relationships which were considered regressive rather than potentially therapeutic; it was also a function of high staff and child turnover, both of which had become much more stable over the years up to the time of data collection.

The author himself had been a child care worker at this agency as recently as a year and a half previous to the research. This was greatly advantageous in obtaining cooperation from the staff.

Subjects

Four male child care workers rated each of nine boys. The thesis was limited to male child care workers' perceptions of boys. The study was limited to boys because it was thought that the personalities of boys were probably considerably different from girls. To have used both sexes would have made the design of a common instrument to describe the personalities of the children very difficult (See below). The author's experience was with boys, hence boys were chosen. The study was limited to male child care workers since the child care responsibility for the boys was with the male staff. Female child care workers helped frequently with the boys but the amount varied greatly among the staff, making empirical research impossible.

The four male child care workers represented the entire male child care staff at the time of the data collection. Each child care worker had at least nine months experience. All were in their early twenties. All were White. Two were single, two were married, one was separated from his wife. None had children of their own. One had

completed college and one was finishing college. Two had left college, but both planned to return to finish. All intended to continue their education. Three had made career choices based on their experience as child care workers. Of these, two wanted to become psychiatric social workers, the other a supervisor of a residential unit.

Participation in the research was voluntary but well compensated (\$50 for seven to ten hours work done in addition to the child care workers' work week). It was understood by all that compensation was from the University and not from the author's personal finances. It was the author's impression that the compensation was a necessary and sufficient motivation for participation.

The nine boys whom the child care workers rated did not represent all of the boys the staff worked with. It was a requirement for the selection of a boy that all four child care workers know him for at least six weeks. Three boys were disqualified because of failure to meet this requirement. A tenth boy whom the staff knew for only two weeks was added as an extra child to test hypothesis II(e). The boys were all severely disturbed children who had great difficulty in remaining in their own families or foster families. Although half of the children were diagnosed character disordered, there were also two borderline and two schizophrenic children. Half were Black, half White.

It had been planned that the two assistant supervisors would do ratings of effectiveness of the child care workers. One refused to participate because he disliked all research. The Director of the Child Care Center took his place. The timing of the data collection was based on the requirement of having a minimum of four staff and eight boys. The entire study took two weeks.

According to Robert Gass, Director of Education at the Child Care Center and employed by the agency for two years previous to the research and two years thereafter, both the groups of the child care workers and the children used in the research were representative of the staff and the children there during his employment.

Personality Description of the Children and the Self-Descriptions

The personality descriptions of the children and the self-descriptions were done through a paired comparison instrument, specially designed for this research. The search for a way for the child care workers to describe the personalities of the children was three problems in one: (a) a measurement methodological issue, (b) an attempt to get an instrument that would be simple, non boring, and yielding of meaningful data by child care workers of limited psychological sophistication, and (c) a question of what variables to use to describe children in residential treatment.

The author found no previously existing instrument which satisfactorily met all of the above requirements. Therefore a specially designed instrument was constructed for this research, the Child Personality Paired Comparison Instrument. Although the construction faced simultaneously measurement, child care worker facility problems, and the question of what to describe in the children, these are discussed separately.

Measurement. The problem was essentially a scaling and retest reliability problem. Block (1961), Gough (1965), Guilford (1954), Stevens (1951), and Stevenson (1953) were consulted and one after another all but one method, paired comparison, were discarded. Rating scales were eliminated because retest reliability was not achieved.

Adjective check lists were eliminated for the same reason. Also if the adjectives are not organized and scored on a dimension, data are at best nominal; if organized and scored on a dimension, the "organizing" and naming of the dimension becomes controversial. Q-sort technique was eliminated because pilot work showed that child care workers were influenced by the following problem: early sortings were on the basis of true discriminations of the sorted object, but that later sortings became contaminated by the pressure to get the right number of cards in each pile. Rank order was entertained but discarded because of unsatisfactory retest reliability and because of the purely ordinal level of measurement. All of the above methods were tried by the author on the variables being developed for this research. At this point paired comparison was tried. It was found to give high retest reliability, data on a potentially very wide scale with better than purely ordinal properties (Luborsky, 1962, p. 118).

Child care worker facility. All of the above mentioned methods were tried and paired comparison was found to be the easiest to use. Luborsky (1962) reports it is his experience that clinicians find this an easy method to rate highly inferential personality variables.

Variables. Recall it was decided at the start to limit this study to male child care workers' perceptions of boys. A list was made up of sixty-four variables that were found through experience to both describe boys and arouse feelings of attraction and distaste in adults toward them. These variables were accumulated through the author's three years experience as a child care worker and through informal discussion with fellow child care workers. After completion

several undergraduate and graduate students experienced with exceptional children were interviewed. The list was revised. Finally the variables were analyzed and grouped. Most were behavioral in nature. They were grouped under new variables of a higher level of inference. The new variables were comprehensible to child care workers. These sixteen variables were re-defined in as simple language as possible.

The following is a list of the variables and their definitions:

Affection - a characteristic of a person who feels motivated toward giving to the material and emotional benefit of others.

Aggression - a characteristic of a person who engages in behavior for the purpose of attacking or hurting others. This behavior may be verbal, physical, or passive. (passive aggression: a child who wets his pants to spite a counsellor.)

Auto-eroticism - a characteristic of a person who receives pleasure from sexual activity with his own body as sexual object. This may be expressed in masturbatory activities or excessive grooming.

Competition - a characteristic of a person who strives to do better and be better than others.

Compulsivity - a characteristic of a person who is especially concerned with order. He is rigid in his thinking, in his interpersonal relations, in his values.

Dependency - a characteristic of a person who relies very much on other people for support. He has great difficulty in acting independently.

Depression - a characteristic of a person who has feelings of sadness, hopelessness, and despair.

Dominance - a characteristic of a person who tries to influence the behavior, sentiments, or ideas of others. He seeks leadership roles in groups or to be influential and controlling in individual relationships.

Homosexuality - a characteristic of a person who has feelings of sexual attraction for members of his own sex.

Hostility - a characteristic of a person with feelings of grievance, contempt, or hate for other people.

Inferiority - a characteristic of a person who fails in generally everything he does.

Intelligence - a characteristic of a person with a high capacity to act purposively, to think rationally and to deal effectively with his environment.

Narcissism - a characteristic of a person who tries to use others for his own benefit without regard to the needs of others. He is selfish, manipulative, untrustworthy.

Self-hatred - a characteristic of a person with a low self-image and feelings of self-criticism and guilt. He is self-punishing.

Social Maturity - a characteristic of a person who tries to be responsible, cooperative, fair-minded, loyal, and trusting.

Withdrawal - a characteristic of a person who avoids stressful situations, and when in such situations is retiring rather than active.

Child Personality Paired Comparison Instrument. The Instrument was made up of the above sixteen variables. Each variable was paired with each other variable, making 120 pairs altogether. The 120 pairs

were broken down into fifteen sections of eight pairs each. In each section each variable appeared in a pair. Each section was two pages long with four pairs on each page. For each copy of the Instrument used by a child care worker the fifteen sections were randomly sorted as was page one and page two of each section. Hence as a child care worker filled out the Instrument it was impossible to develop a response set. Because of the use of sections, variables did not appear in batches.

Because the names of the variables are commonly used constructs, meaning different things to different people, the names of the variables were not used in the Instrument. Instead the definitions (called "statements" to child care workers) were given. In other words the definitions of the variables were paired rather than the names of the variables. (See Appendix B for a copy of the Instrument.)

The Instrument was filled out once for each child (all 120 pairs). Child care workers were instructed to check the statement (variable) that was more characteristic of the child (See Appendix A for the exact instructions.)

The Instrument is easily scored. The number of times a variable is picked over its pair is the score for that variable. Scores run potentially from zero, the variable never being picked, to fifteen, the variable always being picked.

Data Collection

Before data collection the author discussed the research with the staff as a group. It was explained that the author was interested in residential treatment, the important role of the child care worker and his descriptions of the children he worked with. They were not told

at this time that there would be personal information collected because it was felt that knowledge of this would hinder their giving honest descriptions of the children. Participation was on a voluntary basis and they were told they would receive five dollars an hour for their assistance. All cooperated.

Stages of data collection:

(A). Each child care worker was met individually at which time he was given a set of instructions (See Appendix A) and one copy of the Child Personality Paired Comparison Instrument. The author then asked him to fill out the Instrument for one child (the same child for each child care worker), and to ask any questions he had about the Instrument as he went along. Very few questions were asked; the task averaged about twenty-five minutes. Then the child care worker was given nine more copies of the Instrument and instructed to fill them out for each of the eight remaining children. He was given an extra copy for the tenth child who was added to see how the child care workers would fill out the Instrument for a child they knew very little. The author conceded this last description would be difficult but asked the child care worker to try his best. The child care worker was then instructed to do the descriptions of the children at home in a certain prescribed order (same for each worker) at any time he felt relaxed and alert and unlikely to be interrupted. He was urged not to do more than three at one sitting. He was given three or four days to do this. He was asked not to discuss any of the research until the entire project was completed.

(B). Another individual appointment was made. At that time the Instruments were collected and the child care worker was given a

rating scale of how much he liked each of the nine children. This was followed by a paired comparison of the children for the dimension of Liking. Each child was paired with each other child. The child care worker was instructed to circle the child he liked more. Lastly he was asked to pick out of the nine children the two he liked most and the two he liked least.

At this point, during this appointment, since all the descriptions of the children were made, it was explained that personal data were to be collected. The child care worker was told that he was free to discontinue if he had any reservations about the giving of personal information. (See Appendix C for a copy of the instructions given at this point.) All agreed to continue. Had they not agreed, the research would probably have been discontinued. They did not know this.

(C). During the same appointment the child care worker was given two more copies of the Instrument. This time he was instructed to fill it out first as he was as a child (of nine years old if he experienced a lot of change from seven to twelve) and second as he was presently. These were to be done over the next two days and then mailed to the author. Another appointment was scheduled for the personal interview.

(D). In the interview he was asked (a) how he got involved in child care work; (b) his opinions about several controversial issues in residential treatment; (c) what he would do in several critical incidents; (d) how much stress he felt in each of the sixteen personality variables as a child, as an adult, and any change between these two times, the variables being discussed one by one; (e) which

children he felt most and least effective with. An outline of the interview is contained in Appendix D.

(E). During the same period as the interviews were taking place the two raters of child care worker effectiveness were met individually. The raters were asked to rank order the staff for effectiveness, rank the child care workers on effectiveness with each child, and pick the three children each child care worker was most and least effective with.

(F). Six months later the child care worker staff were contacted individually by mail and asked to repeat using the Instrument to describe the tenth child as they saw him now. It was said that their descriptions of this child had been found interesting.

(G). A clinical psychology doctoral candidate with several years of clinical experience (outside judge) rated tape transcriptions of the interviews. He rated each child care worker for both childhood and adulthood stress on each of the sixteen variables. He used a four point scale:

1 - Stress is within expectable limits. It does not hinder personal functioning.

2 - Stress is somewhat beyond expectable limits, and maybe hindering personal functioning.

3 - Stress is great, quite beyond expectable limits, and is probably hindering personal functioning.

4 - Stress is in serious proportion, obviously great, almost certainly hindering personal functioning. Instructions for this rating are contained in the Appendix E. The author rated the interviews to afford a reliability measure for the outside judge's ratings. The reliability is reported in Appendix F.

DATA ANALYSIS

This chapter is divided into two parts. The first presents the data analysis and results to the individual hypotheses. The organization is parallel to the subdivision and order of the HYPOTHESES chapter (see above). Discussion is limited mostly to the results of the individual hypotheses. The second part presents an overview of the results. More general thoughts and speculations and their relation to the literature are postponed until the DISCUSSION chapter.

I(a). It is hypothesized that the individual child care worker will have consistent perceptions of each child. Therefore it is predicted that the individual child care worker's descriptions of each child will have high reliability.

Recall the descriptions of the personalities of the children were given in the Child Personality Paired Comparison Instrument specifically designed for this research. A reliability measure of the use of this Instrument would indicate the internal consistency of the individual child care worker's perceptions of each child. Therefore an intra child care worker reliability measure for each child care worker's descriptions of each child was calculated. This was done by a split half method. As made out by the child care workers the Instrument was divided into fifteen sections. In each section each variable was paired with one other variable. For the reliability measure the fifteen sections were identified as odd or even (eight odd, seven even). The total scores on each of the sixteen variables for the odd sections were correlated with the total scores for the even

sections. Those correlations were then corrected by the Spearman-Brown formula.

Recall each of four child care workers rated each of nine children. Altogether there were thirty-six ratings of children. The average of these thirty-six correlations was .88 which indicates very high consistency. Table 1 shows each of the intra child care reliability correlations as well as the average of the four reliability correlations for each child and the average of the nine ratings for each child care worker.

Although the range was from .62 to .97, there were no statistically significant differences among child care workers or among children. In other words the child care workers did not differ among themselves in how consistent they were in their descriptions of the children nor were the child care workers more consistent in their descriptions of some children than other children. The range of reliability correlations from .62 to .97 is explained as either error variance or possibly a child care worker - child interaction. However this is not statistically testable from these data. (See Table 2.)

I(b). It is hypothesized that the child care workers will have substantially low agreement among themselves about the children. Furthermore it is predicted that this between child care worker agreement will be substantially lower than individual consistency (Ia). In other words they will have rather clear descriptions of how they individually perceive the children but will have rather low agreement among themselves.

Agreement among child care workers about the children can be expressed statistically as inter child care worker reliability.

TABLE 1

Intra Child Care Worker Reliability of Their Ratings of the Children
as Given on the Child Personality Paired Comparison Instrument

N = 16

Child	Child care worker				Avg. Reliability ^a
	A	B	C	D	
Doug	.83	.91	.93	.90	.90
Eric	.69	.86	.89	.94	.87
James	.85	.83	.62	.86	.81
Jeff	.90	.88	.84	.89	.88
Marty	.97	.95	.72	.88	.91
Paul	.88	.93	.90	.86	.90
Ralph	.88	.90	.83	.92	.89
Stan	.96	.89	.88	.74	.89
Tim	.80	.95	.84	.87	.88
Avg. Reliab. ^a	.89	.91	.85	.88	.88

Note. - Intra child care worker reliability is measured by split-half Pearson r correlations corrected by the Spearman Brown formula.

^a Individual correlations were transformed first to Fisher Z before

Continued

TABLE 1

Continued

averaging. Average Z was then re-transformed back to average correlation. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc. 1969, p. 158.

TABLE 2

Analysis of Variance:

Differences Among Child Care Workers and Among Children on the Intra
Child Care Worker Reliability of Their Ratings of the Children as
Given on the Child Personality Paired Comparison Instrument

Source	df	MS	F
Child care worker (A)	3	.112	1.26
Child (B)	8	.056	.63
A X B	24	.089	

Note. - Random Model of analysis of variance, reference to Hays, Statistics. New York: Holt, Rinehart and Winston, 1963, p. 413 ff. Prior to the analysis of variance the reliability correlations were first transformed to Fisher Z in order to meet the assumption of normality.

Winer's r_1' was calculated separately for each child. (See Table 3.) (In a personal communication, Professor Winer said that his reliability methods were appropriate for the data analyses in this research.) The reliability ranged from a low for Ralph of .13 to a high of .63 for Jeff with an average of .41. This indicates that there was at best moderate agreement among child care workers in their descriptions of the children. There were statistically significant and substantial differences among children. That is, the child care workers found it much easier to agree about some children than about other children.

I(c). It is hypothesized that the child care workers will have substantially low agreement among themselves in their perception of each of the sixteen variables, and, furthermore, this agreement will vary greatly across variables.

Agreement among the child care workers in their perception of each of the variables in the children can also be expressed as inter child care worker reliability. Again Winer's use of analysis of variance to estimate reliability was employed, but this time r_1' and r_1 were calculated. In this case r_1 gives a measure of the reliability of a child care worker rating a specific variable on one of the nine children. Winer's r_1' does not consider variance in mean ratings - frame of reference - as part of the error measurement. In other words child care workers could have disagreed in two ways. For example they might have disagreed about how much Aggression existed in Eric. r_1' includes this. But they might also have disagreed in the overall amount of Aggression that they saw in all the children combined (variance in mean ratings). This latter disagreement is because of different "frames of reference" and is not included in r_1' but is

TABLE 3

Inter Child Care Worker Reliability of Their Ratings of the Children
as Given on the Child Personality Paired Comparison Instrument

Child care workers = 4, Variables = 16

Child	r_1'
Doug	.15
Eric	.28
James	.48
Jeff	.63
Marty	.31
Paul	.53
Ralph	.13
Stan	.57
Tim	.46
Avg. $r_1'^a$.41

Note. - Reliability is measured by Winer's reliability coefficient, r_1' which includes the reliability of an individual child on a variable.

a Individual coefficients were transformed first to Fisher Z before averaging. Average Fisher Z was then

Continued

TABLE 3

Continued

transformed back to average coefficient. Reference to Q.
McNemar, Psychological Statistics. New York: John Wiley &
Sons, Inc., 1969, p. 158.

included in r_1 . Briefly, r_1' gives a measure of only the reliability of a child care worker rating a specific variable in one of the nine children; r_1 gives a measure of the same reliability but simultaneously includes reliability of frame of reference. r_1 gives a more strict measure of reliability than r_1' , and the population value of r_1 is always smaller than r_1' (sample values of r_1 are sometimes larger because of sampling error).

Both r_1' and r_1 were calculated for each of the sixteen variables. (See Table 4.) The r_1' reliability ranged from a low for Dependency and Self-Hatred of .12 to a high for Inferiority of .79 with an average of .45. The r_1 reliability ranged from a low for Dependency of .09 to a high for Inferiority of .77 with an average of .33. This indicates that there was at best moderate agreement among child care workers in their perception of the sixteen variables in the children. The differences among variables were substantial and statistically significant. That is, the child care workers found it easier to agree about some variables than about other variables.

II(a). It is hypothesized that child care workers will differ among themselves in the importance they rate a variable in their own self-description. It is also expected that the child care workers will disagree about some variables in the children more than about other variables (Ic). It is hypothesized that the less the child care workers differ on a variable in their self-descriptions, the more they will agree about the importance of the same variable in the children.

As was shown in section I(c), child care workers disagreed about

TABLE 4

Inter Child Care Worker Reliability of Their Ratings
of the Variables in the Children as Given on the
Child Personality Paired Comparison Instrument
Child care workers = 4, Children = 9

Winer Reliability Coefficient		
Variable	r_1'	r_1
Affection	.49	.26
Aggression	.26	.11
Auto-eroticism	.59	.47
Competition	.54	.55
Compulsivity	.57	.26
Dependency	.12	.09
Depression	.18	.10
Dominance	.55	.37
Homosexuality	.36	.13
Hostility	.31	.14
Inferiority	.79	.77
Intelligence	.38	.14
Narcissism	.68	.61
Self-hatred	.12	.12
Social Maturity	.54	.42
Withdrawal	.41	.36
Average ^a	.45	.33

Continued

TABLE 4

Continued

Note. - Reliability is measured by two of Winer's reliability coefficients. r_1 is the total reliability of a rating of a variable, including both the rating of a particular variable in an individual child and the reliability of the overall rating of this variable in all of the children. r_1' includes only the rating of a particular rating of a variable in an individual child. See the text for further explanation. Reference to B. J. Winer, Statistical Principles in Experimental Design. New York: McGraw-Hill Book Company, 1962, p. 124-132.

a Individual coefficients were transformed first to Fisher Z before averaging. Average Fisher Z was then transformed back to average coefficients. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc., 1969, p. 158.

some variables in the children more than about other variables. It is noted (here) that the data also indicate the child care workers differ among themselves in their self-descriptions on some variables more than on other variables.

To test hypothesis II(a), the variance was used as a measure of the variability of how much the child care workers differed among themselves in the importance they rated a variable in their self-descriptions. This was done separately for the child and the adult self-ratings. For each of the sixteen variables there were four scores, one for each child care worker. The variance of these four scores was calculated. Altogether there were sixteen variances for the child self-rating and sixteen variances for the adult self-ratings. Then the Winer reliability measures for each variable, r_1 and r_1' , (from Ic) were taken and correlated separately with the variances in the self-ratings (each for child and adult). Table 5 shows the results. A negative correlation supports the hypothesis: the less they differ in a variable in their self-descriptions, the more they will agree about the importance of the same variable in the children. None of the correlations were statistically significant at the .05 level. However the correlations of the variance from the adult self-descriptions and the Winer r_1' was significant at .10 (one tail). Although this is not a highly statistically significant confirmation of hypothesis II(a) it does invite speculation that the hypothesis may be working here. Noteworthy is the observation that the adulthood stress ratings correlate higher than the childhood ratings. (This will be pursued in the presentation of the results of hypothesis II(d) in this chapter and in the DISCUSSION chapter.) Also interesting is

TABLE 5
 Correlations of How Much the Child Care Workers Differed
 Among Themselves in Their Ratings of the Variables in Their
 Self-Descriptions with the Inter Child Care Worker Reliabilities
 of Their Ratings of the Variables in the Children
 N = 16

Self Rating	Inter Child Care Worker Reliability ^a	
	r_1'	r_1
Childhood	-.026	.120
Adulthood	-.386*	-.292

Note. - The variance was used as the measure of how much the child care workers differed among themselves in their ratings of the variables in their self-descriptions. Correlations are Pearson r coefficients.

^a Reliability is measured by Winer's method. Reference to B. J. Winer, Statistical Principles in Experimental Design. New York: McGraw-Hill Book Company, 1962, p. 124-132.

* $p < .10$ (one tail).

that the correlation of the variance from the adult self-description and the Winer r_1' (-.386) is larger than the correlation of the variance from the adult self-description and the Winer r_1 (-.292) and that this difference is significant at the .10 level (one tail). (McNemar test of differences in correlation in nonindependent samples, McNemar, 1969, p. 158.) Again this is not a highly statistically significant result but it invites speculation. Recall from I(c) that r_1 is a measure of reliability that measures simultaneously agreement in frame of reference (the mean amount of a variable perceived) and the agreement in how much of a variable is perceived in an individual child. The Winer r_1' includes only a measure of agreement in how much a variable is perceived in an individual child. The finding that the correlation of the variances in the self-descriptions is higher with r_1' than r_1 invites speculation that differences among the child care workers' personalities are related more to the child care workers' perception of the variables in the individual child than to his overall perception of the variables in the children as a group. (This speculation will be clarified and further developed in the presentation of the results of hypothesis II(d) in this chapter and in the DISCUSSION chapter.)

II(b). The personality variables which are stressful in the child care workers' own personality will be over or under emphasized in his perceptions of the children.

Stress variables were distinguished from non-stress variables by the ratings of the interviews. (See Appendix E and F for a description of how stress was rated.) This was done separately for the ratings of childhood and adulthood. The scores for each variable summed across the nine children were used as measures of the amount of each

variable perceived. This hypothesis was tested separately for each worker by the Moses Test of Extreme Reaction (Siegel, 1956, p. 145-152). No significant results were found for three of the four child care workers. For one worker, B, the results were significant at .06 but only for stress in his personality as a child and not as an adult. Hence out of eight tests (two for each worker, one for childhood stress, one for adulthood stress) only one was significant and that at .06. One is inclined to conclude that this is a chance finding. The hypothesis is rejected.

II(c). On those variables on which there has been a lessening of stress in the child care worker's own personality from childhood to adulthood there will be an over or under emphasis in his perceptions of the children.

Stress was rated for the child care worker for both his childhood and his adulthood. (See Appendix E for a description of how stress was rated; Appendix F for reliability of these ratings.) For each child care worker there were variables for which the adulthood stress rating was less than the childhood stress rating. These variables were classified as "lessening of stress" variables. The Moses Test of Extreme Reaction (Siegel, 1956, p. 145-152) was used to see if there was a significant over or under emphasis (relative to the other variables) in the "lessening of stress" variables. For two of the four child care workers, C and D, there were significant results at .025 and .077. The hypothesis failed for the other two child care workers. For one of these, B, there was little lessening of stress from childhood to adulthood, which made the hypothesis not very applicable. It did not appear for either of these child care workers that increased reliability of the

stress ratings would have led to a confirmation of the hypothesis. Thus some child care workers' perceptions of a variable in the children were influenced by their overcoming a stress in this variable.

II(d). It is hypothesized that the less a variable produces stress in the personalities of the child care workers as a group, the more agreement they will have among themselves in the importance of this variable in the children.

As was shown in section I(c) the child care workers disagreed about some variables in the children more than about other variables. The actual data cannot be reported here because of confidentiality, but some variables were much more stressful than other variables for the child care workers.

Stress was measured by an outside observer's ratings of the interviews. He rated each interview separately. (Reliability of these ratings is given in Appendix F.) The stress scores were added up across child care workers. This was done separately for the childhood and adulthood ratings. This total was used as a measure of how much child care workers as a group experienced stress with a variable. Since the interviews were rated on a four point scale and there were four child care workers the total stress scores could range from a minimum of 4 (all receiving a minimum stress score of one) to 16 (all receiving a maximum stress score of four). Thus it was potentially a 13-point scale. In actuality for these child care workers it ranged from 4 to 10, a 7-point scale. These sixteen stress scores, one for each variable, were correlated with their corresponding Winer r_1 and r_1' reliability coefficients. This was done separately for the childhood and the adulthood stress scores. Because the reliability of the stress

ratings by the judges was poor for five of the sixteen variables (see Appendix F), the correlations of the stress scores for only the remaining eleven highly reliably judged variables with the Winer reliability coefficients are also reported. (See Table 6.) Negative correlations are confirmative of the hypothesis. When all sixteen variables are used, the adulthood stress totals correlate at the .10 level (one tail) with the Winer r_1 reliability coefficients, and at the .025 level (one tail) with the Winer r_1' reliability coefficients. The childhood stress totals do not correlate significantly with either the Winer r_1 or r_1' coefficients.

When only the eleven variables that had high stress judged reliability were used, the adulthood stress totals correlate at the .10 level (one tail) with the Winer r_1 reliability coefficients and at the .005 level (one tail) with the Winer r_1' reliability coefficients. The childhood stress totals do not correlate significantly with the Winer r_1 coefficients but do at the .05 level (one tail) with the Winer r_1' coefficients.

Hence there is statistical confirmation that the less stress there exists in the child care workers as a group on a variable the more they will agree on this variable in the children. Particularly interesting is that the highest correlation is that of the adulthood stress ratings with the Winer r_1' coefficients. Recall in II(a) that the highest correlation was that of the variances in the adult self-ratings with the Winer r_1' coefficients. The same pattern is here. The adult (present) stress ratings did better than the child ratings. Also similar to II(a), the correlations of the stress ratings with the Winer r_1' are statistically significantly larger than with the Winer r_1

TABLE 6

Correlations of the Amount of Stress in the Variables in the
Child Care Workers' Personalities with the Inter Child Care Worker
Reliabilities of Their Ratings of the Variables in the Children

N = 16

Stress Rating	Inter Child Care Worker Reliability ^a	
	r_1'	r_1
for all sixteen variables		
Childhood	-.232	.010
Adulthood	-.539 ^{***b}	-.392 ^{*b}
for the eleven variables high on judge reliability		
Childhood	-.544 ^{**}	-.146
Adulthood	-.786 ^{***c}	-.506 ^{*c}

Note. - Correlations are Pearson r coefficients.
All significance tests are one tail. Stress
ratings are on the basis of a clinical psychologist's
ratings separately of the childhoods and adulthoods
of each of the child care workers.

a Reliability is measured by Winer's method.

Reference to B. J. Winer, Statistical Principles in

Continued

TABLE 6

Continued

Experimental Design. New York: McGraw-Hill Book Company, 1962, p. 124-132.

b These two correlations are significantly different; $p .10$ (one tail) that the correlations of Adulthood and r_1' is greater than the correlation of Adulthood and r_1 .

c These two correlations are significantly different; $p .01$ (one tail) that the correlation of Adulthood and r_1' is greater than the correlation of Adulthood and r_1 .

* $p < .10$.

** $p < .05$.

*** $p < .025$.

**** $p < .005$.

coefficients. This is at the .10 level (one tail) for all sixteen variables, at the .01 level (one tail) for just the eleven variables (McNemar, 1969, p. 158).

That the adulthood stress ratings did better than the childhood ratings was somewhat of a surprise. Stress must have a more debilitating effect when it is present at the moment rather than in childhood. This leads one to conclude that what the child care worker's childhood was like is not as important as how he is currently functioning. Possibly a person's past childhood experience acts as a reservoir of potentially stressful conflicts which effect current perceptual functioning only when they are aroused by his current life experience. (More on this in the DISCUSSION chapter.)

The finding that the stress ratings correlate better with the Winer r_1' coefficients than with the Winer r_1 coefficients can be explained in the same way the similar finding with the variance in the self-ratings was explained in section II(a). That is, stress in the child care workers' personality effects most his perception of the individual child. This is what Winer's r_1' measures. Stress is not as likely to cause general perceptual distortion (frame of reference), how much of a variable is seen in all the children. It makes its impact more on how much a variable is seen in an individual child. It does not account as much for why child care workers say something like: "We disagree how aggressive the nine children are at our treatment center." More likely it accounts for the common statement: "We disagree how aggressive Eric is." (More on this below.)

II(e). In general it is believed that overidentification is strongest when there is a minimum of real cues. Does this apply to the child

care worker's perceptions of children? That is, are the perceptions of children less known to the child care worker more like his own personality than those of children well known?

Recall that each of the nine children whom the child care worker described had been in his care for at least six weeks. A tenth child, Mike, who had been at the treatment center less than two weeks was included as an extra child to see how he would be described. The instructions for filling out the Child Personality Paired Comparison Instrument were the same for Mike as for the other nine children except that it was acknowledged by the author to the child care workers that it would probably be difficult to describe Mike but to try one's best. Six months later the child care workers described Mike again. They were told that although their descriptions of Mike had not been a major part of the research the results were interesting, would they please fill it out as they perceived him now. The child care workers were not aware of the overidentification hypothesis. They knew only that the author was interested in their descriptions of a new child.

First description (after two weeks) (I)

Although the child care workers all reported difficulty in describing Mike when they described him the first time (I), the data indicate that their difficulties were not serious. The intra child care worker reliability measures ranged from .68 for child care worker A to .91 for child care worker B. (See Table 7.) The average for all four workers was .84 which ranked nine out of ten when Mike is joined to the other nine children. However .84 is not substantially lower than .88, the average of the intra child care worker reliability

TABLE 7

Intra Child Care Worker Reliability of Their Ratings of Mike
as Given on the Child Personality Paired Comparison Instrument

N = 16

Description ^a	Child care worker				
	A	B	C	D	Average ^{b,c}
I	.85 (8) ^d	.82 (10)	.38 (9)	.91 (3)	.84 (9)
II	.94 (2)	.85 (9)	.80 (8)	.77 (9)	.85 (9)

Note. - Intra child care worker reliability is measured by split-half Pearson r correlations corrected by the Spearman Brown formula.

a Description I was after knowing Mike for two years. Description II was after knowing him for six months.

b Individual correlations were transformed first to Fisher Z before averaging. Average Fisher Z was then re-transformed back to average correlation. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc., 1969, p. 158.

c The average intra child care worker reliability of the four child care workers rating the nine children (excluding Mike) is .88.

d The number in parenthesis is the rank of the intra child care worker reliability for Mike if placed among the intra child care worker reliabilities for the other nine children.

measures for the four workers rating the nine children (from Table 1), and is still considered high.

The inter child care worker reliability for Mike is expressed by Winer's r_1' . For the first description (I) this reliability was .30 which was seventh among the ten children (Mike joining the other nine). This was lower than .41, the average of the inter child care worker reliability measures of the nine children. This indicates that the child care workers found it somewhat more difficult to agree among themselves about a child they did not know well than they found for the children that they did know well.

Similarity correlations were found for all the children for each worker. The scores on each of the sixteen variables for the child care workers' self-descriptions were correlated separately, child and adult, with the child care workers' descriptions of each child. This Pearson r correlation was the measure of similarity. A correlation of positive one means that the Instrument was filled out identically for self-description and description of the child. A correlation of negative one means that the Instrument was filled out completely opposite for self-description and description of the child. A correlation of zero means there was no consistent linear pattern of the scores on the self-description and the description of the child. (Similarity will be discussed more fully in section III.) Similarity correlations for Mike (I) and the child care workers' self-description were very high compared to average similarity. (See Table 8.) For all four child care workers Mike was perceived as more similar to themselves than the average of the other nine children. For two of the child care workers he was perceived as the most similar.

TABLE 8
Similarity Correlations of Child Care Workers'
Self-Descriptions with Their Descriptions of Mike
N = 16

Description ^a	Child care worker			
	A	B	C	D
Child care workers' self-descriptions of childhood				
I	.28 (2) ^b	.76 (3)	.70 (1)	.37 (1)
II	-.22 (5)	.49 (5)	.19 (4)	.09 (6)
Avg. Similarity^c without Mike	-.22	.48	.09	.03
Child care workers' self-descriptions of adulthood				
I	.11 (5)	.65 (4)	.89 (1)	.43 (1)
II	-.10 (8)	.23 (6)	-.09 (6)	.39 (1)
Avg. Similarity^c without Mike	.04	.39	.15	-.09

Note. - Similarity correlations are Pearson r coefficients.

a Description I was after knowing Mike for two weeks.

Description II was after knowing him for six months.

Continued

TABLE 8

Continued

b The number in parenthesis is the rank of the Mike similarity correlation if placed among the nine other children's similarity correlations.

c Individual correlations were transformed first to Fisher Z before averaging. Average Fisher Z was then retransformed back to average correlation. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc., 1969, p. 158.

Second description (after six months) (II)

Intra child care worker reliability (split half) was about the same for the second description. (See Table 7.) The inter child care worker reliability rose to .40 which is very close to the average of the inter child care worker reliabilities of the other nine children. This indicates that agreement improved over the six months but not to where agreement was high. It may also reflect a decrease in the variability of Mike's behavior over time, making it easier for child care workers to agree.

Interestingly the correlations between the child care workers' first and second descriptions of Mike are quite low and substantially lower than any of their intra child care worker reliability measures of Mike. (See Table 9.) This indicates that although the child care workers had rather clear and consistent perceptions for both descriptions, the perceptions themselves were quite different from one time to the other. This difference is striking when one examines the similarity correlations for the descriptions of Mike (II). (See Table 8 again.) For each worker the similarity correlations have dropped. This was tested statistically by analysis of variance where Fisher Z transformations of the similarity correlations were used as scores. The analysis of variance was a 2 X 2 factorial design with randomized blocks (Edwards, p. 248 ff). (See Table 10.) The analysis of variance demonstrates a highly significant difference in the similarity correlations between the first description (I) and the second description (II). Thus the drop in similarity is statistically significant.

To sum up the data we have rather highly consistent descriptions

TABLE 9

Correlations Between First and Second Descriptions of Mike

N = 16

Descriptions	Child care worker			
	A	B	C	D
I & II	.31	.56	-.02	.40

Note. - Correlations are Pearson r coefficients.

Description I was after knowing Mike for two weeks.

Description II was after knowing him for six months.

TABLE 10

Analysis of Variance:

Difference Between Similarity Correlations of Child Care Workers'
Self-Descriptions with Their Descriptions of Mike After
Two Weeks (I) and After Six Months (II)

Source	df	MS	F
Treatment	3		
Description I - II (A)	1	1.063	11.17*
Childhood - Adulthood (B) ^a	1	.000	.00
A X B	1	.012	.13
Blocks	3	.361	
Treatment X Blocks	9	.095	

Note. - Reference to A. I. Edwards, Experimental Design in Psychological Research. (New York: Holt, Rinehart and Winston, Inc., 1968, p. 248-250.) The Pearson r correlations were first transformed to Fisher Z to meet the assumption of normality.

^a Child care worker self-description in childhood and adulthood.

* $p < .005$.

of Mike after two weeks and after six months. However in comparison we have only weak inter child care worker agreement; correlations between workers' own descriptions after two weeks and after six months are low. After two weeks when Mike was little known we have strikingly high similarity correlations of child care workers' descriptions of Mike and their own self-descriptions. After six months these similarity correlations have dropped for each child care worker.

All of these data are consistent with the overidentification hypothesis II(d). When little was known about the child, the child care workers described the child much more like themselves than after they had prolonged exposure to the child. When there is a minimum of real cues as to what the child is like the child care worker is inclined to ascribe to that child characteristics which he sees in himself. Over time when real cues present themselves forcefully to the child care worker he sees the child less like himself. At the same time agreement among his fellow child care workers increases.

III. Before the data analysis for hypotheses III(a) and III(b) are presented it will be necessary to give and discuss the results of the data collecting for the dimensions of Similarity, Liking, and Effectiveness. (Similarity, Liking, and Effectiveness will be called "dimensions" instead of variables lest there be confusion with the sixteen personality variables.)

Similarity

The child care workers were not directly asked to give a measure of how much similarity there was between themselves and the children.

Instead Similarity measures were obtained from the descriptions they made of the children and of themselves in the Child Personality Paired Comparison Instrument. Recall in the Instrument each of the sixteen variables were paired with each other variable. The number of times a variable was picked over another variable was considered the score for that variable. Scores could range anywhere from zero to fifteen. Altogether for each use of the Instrument, for each description, there were sixteen scores, one for each variable. Similarity measures were obtained by calculating Pearson r correlations between the different descriptions or uses of the Instrument. For each child care worker the scores on each of the sixteen variables for the child care worker's self-descriptions were correlated separately, childhood and adulthood, with the child care worker's descriptions of each child. This Pearson r correlation was then interpreted as a measure of Similarity. (This procedure was first developed by Fiedler, 1951.) A correlation of positive one means that the Instrument was filled out identically for self-description and description of the child. A correlation of negative one means that the Instrument was filled out completely opposite for self-description and description of the child. A correlation of zero means there was no consistent linear pattern of the scores on the self-description and the description of the child. Table 11 gives the correlations of the self-description as a child and the descriptions of the nine children - "Child Similarity"; Table 12 gives the correlations of the self-description as an adult (the present) and the descriptions of the nine children - "Adult Similarity". Inspection of Tables 11 and 12 shows the great range in Similarity correlations from $-.70$ to

TABLE 11

Similarity Correlations of Child Care Workers' Self-Descriptions
of Their Own Childhood with Their Descriptions of the Children

N = 16

Child	Child care worker				Avg. Similarity ^a
	A	B	C	D	
Doug	-.45	.78	-.25	.13	.11
Eric	-.15	.12	.13	.24	.09
James	-.44	.28	-.19	-.20	-.15
Jeff	.11	.68	.34	.25	.37
Marty	-.13	.22	.14	.00	.06
Paul	-.70	.05	-.45	-.34	-.39
Ralph	-.28	.76	.44	.19	.33
Stan	-.35	.05	.17	-.08	-.05
Tim	.59	.79	.42	.12	.52
Avg. Similarity ^a	.04	.39	.15	-.09	.14

Note. - Correlations are Pearson r coefficients.

^a Individual correlations were transformed first to Fisher Z

Continued

TABLE 11

Continued

before averaging. Average Fisher Z was then re-transformed back to average correlation. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc., 1969, p. 158.

TABLE 12

Similarity Correlations of Child Care Workers' Self-Descriptions
of Their Own Adulthood with Their Descriptions of the Children

N = 16

Child	Child care worker				Avg. Similarity ^a
	A	B	C	D	
Doug	.21	.51	-.59	-.01	.02
Eric	.00	.41	.43	.32	.30
James	.05	-.01	-.29	-.09	-.09
Jeff	.41	.76	.70	.15	.55
Marty	-.01	.09	.02	-.38	-.07
Paul	-.61	-.08	-.64	-.35	-.45
Ralph	.13	.83	.75	-.01	.52
Stan	-.44	-.24	-.23	-.31	-.31
Tim	.59	.65	.76	-.11	.53
Avg. Similarity ^a	-.22	.48	.09	.03	.11

Note. - Correlations are Pearson r coefficients.

a Individual correlations were transformed first to Fisher Z

Continued

TABLE 12

Continued

before averaging. Average Fisher Z was then re-transformed back to average correlation. Reference to Q. McNemar, Psychological Statistics. New York: John Wiley & Sons, Inc., 1969, p. 158.

+ .83. Also evident are the differences among child care workers in how similarly they perceive the children and the differences among the children in how similarly they are perceived by the staff as a whole. (Examine Average Similarity on Tables 11 and 12.) All four child care workers discriminate along this dimension of Similarity. That is, for each child care worker there are some children with higher similarity than others.

Liking

Liking was approached by three different scaling methods. First the child care worker rated how much he liked each child on a 7-point scale (very strongly dislike - strongly dislike - dislike - neutral - like - strongly like - very strongly like). Second he did a paired comparison for Liking in which each of the nine children was paired with each other child. Each pair of children was on a separate index card. His instructions were to circle the child he liked more. Third he was asked to pick the two children he liked the most and the two he liked the least.

The ratings for Liking ranged from a lowest of three ("dislike") to a highest of seven ("very strongly like") with an average across child care workers of five ("like"). The child care workers did not differ substantially among themselves in the amount they rated they liked the children, but the children did differ from an average across child care workers of 3.2 ("dislike") to 6.5 ("very strongly like"). The results of the second scaling method used, the paired comparison for Liking, were fascinating. For three out of the four child care workers there was total differentiation among the children on the dimension of Liking. In paired comparison language this says that for

three of the workers there was a complete absence of "circular triads". When a child care worker picks X over Y, Y over Z, but then picks Z over X he has made a circular triad. For three of the child care workers there were no circular triads and for the fourth child care worker there were only two out of a possible thirty (Kendall, 1948, p. 123). When there are a great number of circular triads the stimuli, in this case the children, are considered of about equal stimulus value on the measured dimension, in this case the dimension Liking (Guilford, 1954). When there is an absence or small presence of circular triads, the stimuli are considered highly differentiated along the dimension. Thus these data demonstrate that Liking for the children is a highly differentiated dimension for these child care workers. Further evidence of this conclusion is the swift speed with which the task was done. However it should be noted that the paired comparison was done after the rating scale and two of the child care workers said that they thought the paired comparison was made easier by doing the rating scale first. For the paired comparison, scores for Liking were calculated by counting the number of times a child was paired as the more liked child. (See Table 13.)

The third scaling method, picking the two children most liked and least liked, was done solely in case of ties in order to set up the data analysis for III(b). For three of the child care workers it was consistent with the paired comparison data. For the fourth child care worker it was consistent with the most liked of the paired comparison data and helped break the ties of the least liked which was where the two circular triads appeared.

It is interesting to note that the paired comparison scales gave

TABLE 13
Child Care Worker Liking for the Children
as Measured by Paired Comparison

Child	Child care worker			
	A	B	C	D
Doug	6	7	5	4
Eric	7	4	7	8
James	3	1	2	3
Jeff	5	5	4	1
Marty	4	2	8	7
Paul	0	2	0	2
Ralph	2	8	1	0
Stan	1	1	3	6
Tim	8	6	6	5

Note. - Scores are the number of times this child was picked over another child as the more liked. For each child care worker each child was paired with each other one.

much wider differentiation than the rating scale. The author feels there are two major reasons for this. First and foremost is the genuinely greater comfort of people when doing a paired comparison, especially on a difficult task. This has been noted in the literature by several people, most concisely by Luborsky (1962, p. 118). The second reason is that a 7-point bipolar scale is probably too narrow for a child care worker. Especially unusable is the negative liking direction. It is unlikely a child care worker would have strong negative feelings for these children and continue to work with them.

Effectiveness

It was hoped that the Effectiveness of the child care workers would be rated by the two Assistant Supervisors, two raters of a common type of supervisory relationship with the child care workers. Unfortunately one was unwilling to participate, because of a dislike of all research. The Director of the Child Care Center took his place to allow for reliability of the participating Assistant Supervisor. This was disadvantageous from the inception because the amount and nature of their contact with the actual day-to-day functioning of the child care workers differed. Therefore it was not too surprising when it was found that their ratings of Effectiveness for the child care workers had poor reliability.

Fortunately this was anticipated and a self-rating of Effectiveness was included in the interview. The child care workers were asked to pick the three children they worked the most effective, and the three they worked the least effective, defining Effectiveness "as ability to recognize and meet the needs of the child." The self-ratings seemed honest to the interviewer. Several discrepancies with the supervisors'

ratings were explainable because of a time gap between child care worker and supervisors. For example one child care worker remarked he once worked very well with one child, noted a change in that child in the last several months, and reported an inability to meet effectively with this change. The supervisors continued to rate him as most effective with this child. Since the self-ratings were actually rankings, differences among workers cannot be calculated. However differences among children were present. Some were rated often as "most effective with," some the opposite. (See Table 14.)

Comparison of facility in scaling Liking and Effectiveness.

Although not directly asked, it was apparent from their confidence and speed at the scaling tasks that the child care workers found the scaling of Effectiveness much more difficult than the scaling of Liking. Unfortunately there was not an exactly similar scaling device on which direct empirical comparison could be made.

III(a). It is hypothesized that there will be statistically significant positive interrelations between the following dimensions: (1) how much the child care worker likes the child, (2) how effective he feels with the child, and (3) the similarity of the child care workers' perception of the child and his perception of his own personality.

In this section the data analysis of the Interrelations is presented. This is done using two different techniques of analysis. The first uses the data on all nine children. The second studies only the interrelationships of these dimensions at their two extremes. Here the techniques of data analysis will be that of Jacqueline Rosen (1963)

TABLE 14

Self-Rated Effectiveness of the Child Care Workers with the Children

Child	Child care worker			
	A	B	C	D
Doug	0	-1	+1	-1
Eric	0	+1	+1	+1
James	-1	-1	0	+1
Jeff	+1	+1	-1	-1
Marty	-1	0	+1	+1
Paul	+1	-1	-1	0
Ralph	0	0	-1	-1
Stan	-1	0	0	0
Tim	+1	+1	0	0

Note. - The three children the child care workers picked as those they worked most effectively with are symbolized by +1; the three least effective by -1; the remaining three by 0.

so that the results of this research can be compared to the results of her research. (Her research was mentioned in the first chapter.)

Author's Technique

The first technique of data analysis uses the data on all nine children for the following four dimensions: Liking, Self-Rated Effectiveness, Child Similarity, and Adult Similarity. The paired comparison data for Liking were used for the Liking dimension since it gave the widest discrimination of the three scaling methods used to measure Liking. The child care worker's self-ratings were used for Effectiveness since the supervisors' ratings were considered unreliable. Hence the dimension is called Self-Rated Effectiveness. The correlations between the child care worker's descriptions of the children and his self-description of how he described himself as a child were used for the Child Similarity dimension. The correlations between the child care worker's descriptions of the children and his self-description of how he described himself as an adult (at present) were used for the Adult Similarity dimension. The Liking dimension is on an ordinal to interval scale, the Effectiveness dimension is on an ordinal scale, the Child and Adult Similarity dimensions are on interval scales. To make sense out of the intercorrelations as a group, the dimensions were all reduced to ordinal scales and the Kendall Tau was used to find the intercorrelations. These intercorrelations were done separately for each child care worker rather than across the four child care workers. This is because interest is more in seeing how individuals function than how the mean of a group functions. A mean of four people is not a person. As shall be seen, the pattern of the interrelations of these dimensions differ from worker to worker. The mean would be misleading.

Table 15 shows the interrelations of the dimensions. Each column represents a child care worker.

Most striking about the data is the lack of a single pattern of intercorrelations. It is different for each child care worker. However two patterns do appear. For child care workers A and B the correlations of Liking and Adult Similarity are statistically significant in a positive direction and the correlations of Liking and Self-Rated Effectiveness are insignificant. For child care workers C and D the pattern is reversed. The correlations of Liking and Adult Similarity are insignificant and the correlations of Liking and Self-Rated Effectiveness are significant in the positive direction. This suggests that there may be patterns common to groups of child care workers. Interestingly child care workers C and D were also together in the data for hypothesis II(c). That is, on variables on which there was a "lessening of stress from childhood to adulthood" there was a statistically significant tendency for both C and D to rate these variables more or less than the other variables. The self-descriptions were intercorrelated among the four child care workers both for childhood and adulthood. (See Table 16.) For the childhood self-description, C is more similar to D than to A or B. D is about equally similar to all of the other three workers. For the adult self-descriptions C is more like D than A or B, and D is more like C than A or B. Therefore C and D have both similar self-descriptions and a similar pattern of intercorrelations of dimensions, notably a tendency to like more the children one is most effective with and dislike the children one is least effective with. (Since this is a correlational model the "tendency" does not necessarily imply causation.)

TABLE 15
 Intercorrelations of the Dimensions of Liking, Self-Rated
 Effectiveness, Child Similarity and Adult Similarity

N = 9

Dimensions	Child care worker			
	A	B	C	D
Liking & Effectiveness	.32	.23	.67*	.61*
Liking & Child Similarity	.25	.57*	.11	.00
Liking & Adult Similarity	.56*	.74**	.22	-.20
Effectiveness & Child Similarity	.20	.10	-.29	-.35
Effectiveness & Adult Similarity	.42	.35	-.10	-.29

Note. - Intercorrelations are Kendall's Tau. All significance tests are one tail.

* $p < .025$.

** $p < .005$.

TABLE 16

Intercorrelations of the Child Care Workers' Self-Descriptions
as Given on the Child Personality Paired Comparison Instrument

N = 16

Child care workers	Self-descriptions	
	Childhood	Adulthood
A & B	.76	.55
A & C	.48	.45
A & D	.68	.73
B & C	.59	.67
B & D	.63	.64
C & D	.64	.74

Note. - Intercorrelations are Pearson r coefficients.
They give a measure of similarity between pairs of
child care workers.

Surprising was the lack of any statistically significant correlations between Child and Adult Similarity and Effectiveness for any of the four child care workers. Also surprising was that not one child care worker had a pattern of all the intercorrelations being statistically significant in the positive direction.

Rosen's Technique

The second technique of data analysis is that of Jacqueline Rosen (1963). What distinguishes Rosen's technique from the author's is the restriction of her interest to the children at the extremes of the dimensions. She does not use data on all of the children as was done above. She obtained results confirmative of hypothesis III(a). Before proceeding, the differences in the design of the two studies should be pointed out. First of all her data were taken from interview material. (She safeguarded in keeping the staff from figuring out what she was hypothesizing by asking many other questions unrelated to hypothesis III(a). For example she asked about attitudes and motivations toward the job.) That all the material came from the interview is a difference. In the present research only the Self-Rated Effectiveness data came from interview material. She did not ask for Self-Rated Effectiveness per se, but rather which child the child care worker found most easy to work with, and which child most difficult to work with. In the present research Self-Rated Effectiveness gave three children equally most effective and three children equally least effective. Another difference was that Similarity was directly asked for rather than indirectly calculated from descriptions as was done in the present research. Lastly, only Child Similarity was asked. Rosen did this because she considered

the child care worker's personality as a child more important than his present personality.

Common to both Rosen and the present research is the denoting of the child most liked and least liked. (In the present research this was apparent from the paired comparison Liking scale except for a tie for child care worker B for least liked. This tie was broken by inspection of the other two liking scales.) Also common are the background (ages, education) of the child care workers and the degree of disturbance of the children. Therefore although there are some rather profound differences in the methods of data collecting, the approach is similar enough to make worthwhile comparison of the results. The data will be given under headings giving the author's interrelation label and then Rosen's and the author's results.

Liking and Similarity. In Rosen's study 15 out of 20 child care workers picked the same child as "liked most" as "most similar to them as a child." In the author's study for 2 out of 4 child care workers, the child rated highest on Liking was the highest on Child Similarity and for 3 out of 4 was the highest on Adult Similarity.

In Rosen's study none of the 20 child care workers rated the child "liked most" as "least similar to them as a child." In the author's study for none of the 4 child care workers, the child rated highest on Liking was the lowest on either Child Similarity or Adult Similarity.

In Rosen's study 9 out of 20 child care workers picked the same child as "likes least" as the "least similar to them as a child." In the author's study for 3 out of 4 child care workers, the child rated lowest on Liking was the lowest on Child Similarity and Adult

Similarity.

In Rosen's study none of the 20 child care workers rated the child "least liked" as the child "most similar to them as a child." In the author's study for none of the four child care workers, the child rated the lowest on Liking was the child highest on Child Similarity or Adult Similarity.

Self-Rated Effectiveness and Similarity. In Rosen's study 18 out of 20 child care workers rated the child "most easy to work with" as the child "most similar to them as a child." In the author's study for 3 out of 4 child care workers, the child rated in the "most effective" category (comprising three of the nine children) was the highest on Child Similarity and for 2 out of 4 on Adult Similarity.

In Rosen's study one out of 20 child care workers rated the child "most difficult to work with" as the child "least similar to them as a child." In the author's study for 1 out of 4 of the child care workers the child rated in the "least effective" category (comprising three of the nine children) was the lowest on Child Similarity and Adult Similarity.

Liking and Self-Rated Effectiveness. Rosen does not report any data on the covariation of these two dimensions.

Comparison of the Author's and Rosen's results.

Although somewhat different in method, the author's results are similar to Rosen's. Since Rosen does not report inferential statistics and the N is small in the present study, the use of inferential statistical analysis to compare the results is not possible. However there is no indication from the descriptive statistics of marked disagreement in the data. Rosen's and the author's results

seen to be both in confirmation of the following two hypotheses:

(1) the child most liked is often perceived as most similar to the child care worker; the child least liked is often perceived as least similar to the child care worker; (2) the child who is most similar to the worker is often perceived as easy to work with.

Rosen's technique of data analysis gave data more confirmative of hypothesis III(a) than did the author's technique. Recall the author's technique used data on all of the children. Rosen's technique collected and used only the children at the extremes of the dimensions. The finding that Rosen's technique is more confirmative of the hypothesis III(a) might indicate that this hypothesis functions more with the children at the extremes of the dimensions than with the whole group of the children. To put it another way, it seems from the data of this research that hypothesis III(a) is descriptive of a set of phenomena that are functioning for a child care worker's perception of only a subgroup rather than the whole group of children he works with.

III(b). It is hypothesized that the child care worker's ratings of the two children most liked and the two children least liked together contribute more to an estimate of the child care worker's self-rating (as a child, as an adult) than four other children contribute. In statistical language the multiple correlation of the four extreme children (most liked and least liked) with the self-rating will be higher than the multiple correlation of four other children with the self-rating.

Recall in the data collection the child care workers were asked to pick the two children they most liked and the two children they

least liked. For three out of four child care workers these were exactly consistent with the paired comparison Liking data. For the fourth child care worker there was consistency with the two children most liked, but not with the two least liked. Comparing across all three methods of Liking scales it was felt that the paired comparison data were the most valid. Therefore the two children receiving the lowest scores on the paired comparison were the two children noted as liked least for this worker for the data analysis.

For each child care worker the four children at the extremes for Liking (the two liked most plus the two liked least) were labelled as the "extreme" group. Of the four remaining children one was dropped, the child receiving the middle score on the paired comparison Liking scale. The child varied from child care worker to child care worker. This group of four children was labelled the "middle" group. The fifth child was dropped because it was desired to keep the "extreme" and "middle" groups equal in size so that the multiple correlations derived from each of them would be comparable.

Recall each child care worker described the personalities of the individual children through the Child Personality Paired Comparison Instrument which gave a profile of sixteen scores for each child, one for each of the sixteen variables.

For each child care worker the profiles of the four "extreme" children were multi-correlated separately with the self-description of childhood and adulthood. Altogether there were four multiple correlations for each child care worker. Hypothesis III(b) predicted that the multiple correlations for the "extreme" group would be larger than the multiple correlations for the "middle" group. Table 17

TABLE 17

Multiple Correlations of the Children Most and Least Liked
and the Multiple Correlations of the Other Children
with the Child Care Workers' Self-Descriptions

N = 16; Predictions = 4

Group ^a	Child care worker			
	A	B	C	D
Childhood self-descriptions				
Middle	.70	.85	.67	.41
Extreme	.77	.89	.63	.30
Adulthood self-descriptions				
Middle	.44	.82	.82	.43
Extreme	.74	.89	.85	.55

Note. - Multiple correlations are Pearson Multiple r coefficients.

^a Extreme is the label for the group of four children most and least liked; middle for four other children.

TABLE 18

Analysis of Variance:

Difference Between Multiple Correlations of Children Most and Least Liked and the Multiple Correlations of the Other Children with the Child Care Workers' Self-Descriptions

Source	df	MS	F
Treatment	3		
Middle-extreme (A) ^a	1	.0826	2.24
Childhood-adulthood (B) ^b	1	.0188	.51
A X B	1	.0486	1.32
Blocks	3	.5136	
Treatment X Blocks	9	.0369	

Note. - Reference to A. L. Edwards, Experimental Design in Psychological Research. (New York: Holt, Rinehart and Winston, Inc., 1968, p. 248-250.) Multiple correlations were first transformed to Fisher Z to meet the assumption of normality.

a Extreme is the label for the group of four children most and least liked; middle for four other children.

b Child care worker self-descriptions of childhood and adulthood.

shows the results. There are eight pairs of "middle" and "extreme" multiple correlations, two for each worker (one for childhood, one for adulthood). Of these eight pairs six of the "extreme" multiple correlations are larger than their corresponding "middle" multiple correlations. All of the four adult "extreme" multiple correlations are larger than the adult "middle" multiple correlations. An analysis of variance of these multiple correlations demonstrates no statistically significant differences between "middle" and "extreme" groups. (See Table 18.) It should also be pointed out that the N is small here and hence the probability of falsely rejecting hypothesis III(b) is quite high (Type II, Beta error). However even if the differences in the multiple correlations were statistically significant, they do not appear to be substantial.

In conclusion the data do not support hypothesis III(b).

Overview of the Results

The results of the three hypotheses under the Reliability of the Ratings were consistent with what was predicted. Individual child care workers had highly consistent perceptions of the personalities of the children. (Recall from Table 1 that split half intra child care worker reliabilities averaged .88.) The four child care workers as a group had weak agreement in rating the children. (Recall from Table 3 that inter child care worker reliability of the children averaged .41.) There were significant and substantial differences among the children. Similarly the four child care workers as a group had weak agreement in rating the variables. (Recall from Table 4 that inter child care

worker reliability of the variables averaged .45.) There were significant and substantial differences among the variables. In short child care workers had consistent, idiosyncratic perceptions of the personalities of the children but weak agreement among each other.

The results of the hypotheses under Factors Influencing the Reliability of the Ratings lend some explanation to this. Hypotheses II(a), II(b), II(c), and II(d) ask the same question a number of ways: How much of the agreement (or disagreement) can be accounted for by the personalities of the child care workers? Hypotheses II(a) and II(b) failed to produce significant results; II(c) and II(d) did produce significant results.

Hypotheses II(a) and II(d) are similar in that they predict a correlational relationship between the inter child care worker reliabilities of the variables and the personalities of the child care workers taken as a group. Inter child care worker reliability is a measure of group agreement. The variance in how much the child care workers differed among themselves in their ratings of the variables in their self-descriptions (hypothesis II(a)) and total stress across the four child care workers as a group (hypothesis II(d)) are both measures of the personalities of the child care workers as a group. The differences in the two hypotheses (II(a) and II(d)) are first, in the source of the information of the personalities of the child care workers. Hypothesis II(a) uses only self-descriptions, hypothesis II(d) uses an outside judge's ratings of personal interviews. Second, in their self-descriptions the child care workers circled the variable that described them more as a child or adult, not which they found more stressful. Significant results were found for hypothesis

II(d), but not for hypothesis II(a). The results of II(d) lend support to the conclusion that the agreement (or disagreement) among child care workers can be at least partially accounted for by the personalities of the child care workers themselves. The author does not feel that the lack of significant results for hypothesis II(a) detracts from the results of hypothesis II(d). Hypothesis II(d) uses a clinician's (the outside judge's) ratings of a personal interview. He was instructed to go beyond self-report. Thus hypothesis II(d) examines the influence of the personalities of the child care workers at more than a conscious level. This addition may have made the difference. However two other explanations are also possible: in one hypothesis, importance of a personality variable was asked, in the other, stress was rated; second, the use of the Child Personality Paired Comparison Instrument for self-description preceded the interview and may have prepared the child care worker for more critical self-reflection.

Two most interesting findings came out of the results of these two hypotheses. First in both cases, the Adulthood ratings, in one case instrument self-description ratings, in the other the outside judge's stress ratings, were better predictors than the Childhood ratings. This was unexpected. The author had felt it necessary to include both Childhood and Adulthood ratings because it was felt that both the child care workers' personalities as children and as adults influenced their perceptions of the children. However it had been thought that the childhoods of the child care workers were more important than their adulthoods in determining their perceptions of the children. Rosen (1963) was even stronger in this position.

She did not even gather information on the child care workers' adulthoods. The finding that the Adulthood ratings predicted better implies that it is not a person's childhood, or his current memory of it, that is crucial. Rather it is the person's current functioning that is critical. Childhood issues are important as they are reawakened and restruggled in adulthood.

The second finding was the difference in the results for Winer's two reliability coefficients, r_1' and r_1 . This was discussed in detail above. Briefly, Winer's r_1 measures reliability of the ratings of the group of children simultaneously with the reliability of the ratings of individuals; Winer's r_1' measures only the reliability of the ratings of individuals. The statistically higher correlation with r_1' than r_1 with the Adulthood ratings indicates that the child care worker's personality makes its impact on perception of the individual children rather than on perception of the group of children.

Hypothesis II(b) did not produce significant results; hypothesis II(c) weak results. Both predicted that stress in a personality variable of a child care worker influenced how much or little he perceived that variable in the group of children.

Hypothesis II(e) approached the problem of how the personalities of the child care workers influence the perception of a child from a slightly different angle. Hypotheses II(a), II(b), II(c), and II(d) examined the relationship of the personalities of the workers and their varied reliabilities of different variables. Hypothesis II(e) examines the relationship of the personalities of the child care workers on a child whom they had little chance to get to know prior to the research. Although based on only an N of one the results were

extraordinary. After knowing the child for only two weeks, they overidentified with him, that is, they saw him more like themselves than they saw the other children. After knowing him for six months identification with him was no greater than with the other children.

These five hypotheses, II(a), II(b), II(c), II(d), and II(e), predicted that the weak inter child care worker reliability was at least partly explained by the personalities of the child care workers. Other possible explanations exist. A major one is the varied ways disturbed children interact with different child care workers.

A second explanation is the amount of permissiveness (conscious and unconscious) a child care worker has for a certain behavior. For example if the child care worker does not allow the expression of hostility, he is less likely to get an accurate assessment of its potential in the child, simply because the child does not show it to the individual adult.

A third explanation is the possible variation in interpretation that the child care workers made to the statements contained in the Child Personality Paired Comparison Instrument.

A fourth explanation is the varied psychological sophistication of child care workers. For example before long on the job every child care worker has had a child for whom he buys an ice cream that is either not eaten or dropped on the ground by "accident". A sophisticated child care worker perceives this as passive aggression and would describe this child as aggressive. A less sophisticated child care worker might perceive the obstinancy but not the aggressive implications and thus not describe the child as aggressive.

A fifth explanation is that supervisors of the child care workers

often have rather rigid perceptions of their own of the children and communicate to the child care worker that he is to perceive the children in a particular, "correct" way. Child care workers react to this in different ways. Some comply with their supervisors, others rebel. In either case their perceptions are influenced by their supervisors' expectations (Henry, 1957; Brendtro, 1969).

The results of the two hypotheses under the Interrelations of Liking, Effectiveness, and Similarity were mixed. The hypothesis III(a) that all interrelations would be significant in the positive direction was not upheld. This hypothesis involved all of the children in the study. However the findings did not disagree with Rosen's (1963) results that the same child was often on the same extremes of each of these dimensions. As discussed in the last chapter it seems that the interrelations of these three dimensions are most profound for children at the extremes.

The hypothesis III(b) was not upheld. This was a surprise. A flaw in the testing of this hypothesis was the use of the self-descriptions given on the Child Personality Paired Comparison Instrument. This facilitated statistical analysis. However self-descriptions give only ego-syntonic data. Strong negative feelings for a child might be best predicted by ego-alien data which were missing here. Had this been obtainable the multiple correlation of the extreme children (most and least liked) with the personalities of the child care workers might have been significantly and substantially larger than the multiple correlation of the middle children.

Several hypotheses were asked of the data of only four child care workers rating nine boys. Since there are practical restraints on the number of children a group of child care workers can know in common, it is impossible to do research of this kind with a large N. Hence replication of this study is needed. This applies particularly to Hypothesis II(e) where only one new boy was rated. Successful replication would give stronger support for the conclusions.

DISCUSSION

It is apparent that the child care workers have weak agreement among themselves in how they perceive the children and the variables. The results for hypotheses II(c) and II(d) indicate that at least part of this is related to stress in the child care workers' personalities. What are the implications of this for the treatment of the children? Obviously if there is weak agreement in what a child is like, there will be inconsistent treatment of the child. This is a serious liability. However Bettelheim (1961, p. 395-396) points out that there is a fundamental dilemma. He explains that it is impossible for a treating person to be an objective observer because of his emotional involvement with the child. Deep emotional involvement is necessary for work with severely disturbed children. Hence one cannot have a completely objective observer and a treating person at one and the same time. If one accepts the relationship of emotional involvement and the lack of objectivity, and if one accepts that emotional involvement is necessary for treatment, then one is left with this perplexing suggestion: Low inter child care worker reliability might be an indication of high emotional investment of the staff, which is necessary for treatment. High inter child care worker reliability might be an indication of a lack of emotional involvement by the staff and hence a lack of treatment.

One of the limitations of the design of this research is the absence of a "true" assessment of the personalities of the children. If this were present, the individual biases of each child care worker could be measured and examined. This was felt by the author to be an insurmountable problem since he himself or anyone else getting the

"true" picture would be subject to bias. A completely "true" assessment is unobtainable. Hence it is impossible to ascertain from the data which child care worker is biased in his perception of a child and which worker is correctly identifying the child as he really is. This is a serious limitation, but a limitation which the author feels is epistemological as well as particular to this research design. However if we assume that both processes are going on, that is, bias and correct identification, it is possible to conceptualize the problem and develop a solution based on the conceptualization.

In order to do this, reference shall be made to some of the literature on psychotherapists and countertransference. Beforehand it is important to examine the relationship of this research to countertransference. The research studies emphasis and overidentification, not bias. Two kinds of data of the child care worker's personality are used. The first is self-description. This is conscious material and hence lends itself to no direct understanding of countertransference which is an unconscious process. The second kind of data is an outside judge's (a clinician's) ratings of a highly structured interview. The outside judge did his ratings on his clinical judgment of the child care worker and went beyond the conscious self-description of the interview and rated what he, the clinician, inferred was the actual personality stress for the child care worker. Hence the outside judge did reach some preconscious and unconscious material but was limited by the structure of the interview. Last countertransference includes not only projecting one's own personality on the patient but also that of other persons in the perceiver's past. For example the child may arouse unconscious feelings toward a lost

sibling. This research limits study to the perceiver himself and does not examine the full range of countertransference possibilities. However the author feels that although this is not strictly a research study of countertransference, it is closely related and makes a review of some of the countertransference literature relevant to this discussion.

Like the child care worker the therapist is constantly faced with the problems of his own emotional overreactions and overidentification based on the limitations of his own emotional self-understanding.

Slavson (1952) holds that "all preferences, antagonisms, and fixations decrease one's usefulness as a therapist, and unawareness of such attitudes may do considerable harm" (p. 202). Hammer and Kaplan (1967) explain that

in identification, the absence of some objective detachment will make it very difficult for the child to see himself as separate and distinct from the therapist and will militate against the process that helps the child mature and become less dependent and more autonomous. When the therapist becomes, himself, involved in the patient's emotions, he supports the infantile fixations instead of helping promote growth and maturity by fostering individuation and autonomy (p. 36 f).

Slavson agrees (p. 204).

The above authors represent one strong traditional position, that countertransference resulting in emotional overreaction and overidentification is counterproductive to the therapy. Although most people in the field of psychotherapy would agree with this statement, there is great variability in how much risk will be taken in using the individual personality of the therapist as a basic tool of the therapy. This does not mean that the traditionalists hold that the personality of the therapist is unimportant. The traditionalists maintain that the therapist's self-awareness is paramount to keeping

countertransference from interfering with the therapy. The disagreement is over the use of the individual therapist's unique personality to aid in the therapy. For example Proctor (1958) explored the countertransference phenomena in the treatment of severe character disorders in children and adolescents. These are the children who make up the bulk of the populations of residential treatment settings. They are also the children that most psychotherapists find most difficult to work with. Proctor concluded that it takes a special type of person to work as a therapist with these children. Most therapists are frightened away by the character of the pregenital superego elements of these children, their narcissistic omnipotence, and their heightened castration anxiety. "(T)he successful therapist of the severe character disorders must have managed these factors within himself without undue repression and thus be able to empathize and work therapeutically with closely related elements in the character disorders" (p. 308). Proctor holds the position that the therapist's personality is crucial to therapy with these children.

Several authors have emphasized that the use and understanding of the countertransference is a tremendous tool in the treatment of the patient. Heiman (1950) and Money-Kyrle (1956) have described their use of it. The patient's unconscious is in communication with the therapist's. He arouses feelings in the therapist's unconscious. By the therapist's understanding of these feelings in himself he becomes consciously aware of the patient's unconscious and is thus capable of communicating to the patient's conscious through interpretation. By this interpretation the patient is able to develop understanding of

his own unconscious.

Thus both the therapist's conscious and unconscious are important. As Heiman and Money-Kyrle point out, his use of his unconscious is a basic tool in his understanding and treating the patient. Fundamental to this is the therapist's self-awareness. Without an ability to explore and understand his unconscious the therapist will be unable to use this most important tool, and in fact his unconscious feelings will become a major obstacle in his work with the patient.

Ekstein (1966) agrees that countertransference "if it is truly understood and utilized as a clue to the understanding of the patient, it may also be the track upon which treatment may proceed" (p. 419). Overidentification sometimes serves in the "service of the therapeutic ego."

We overidentify with them, and it is as if we can do so only if the hate they experience for the parent and the threat from the parent are experienced by us as a wish to rescue them from those who have traumatized them; to be the good mother for them, as it were. This ideology protects us from our own difficulties in accepting such children as patients, endorses them to us as worthwhile, and permits us to maintain long and seemingly hopeless treatment relationships (p. 419).

Ekstein points out that this can backfire. He gives an example of how the residential treatment of a severely disturbed child failed. The child succeeded in evoking from the staff the same rejection he had received from his parents. The inability of the staff to understand this unconscious process initiated by the child's pathology resulted in treatment failure.

Bettelheim (1955) stresses that much of the treatment of the children, in this case severely disturbed children, goes along with

the current and similar self-development of the child care worker. The child care workers identify with the children. The children sense this and feel understood for the first time in their lives. The child care worker has an "enthusiasm and belief in human potentialities" that is contagious to the children. "The worker's need (for a personal relationship) forms the basis on which he sparks into action the child's previously frozen potentialities for relations and restitutive experiences." In his later article (1966) Bettelheim stresses that "insight into themselves, into attitudes and behaviors" is most important. The effective child care worker is one who is able to translate each one of the children's experiences into a parallel one of his own. He gives an example. One child knocks over another's tower of blocks. The child who had made the tower is upset. Bettelheim says the effective child care worker is not the one who builds a "better" tower or a replication, but rather empathizes the loss of the tower and communicates his understanding of the child's feelings. This requires self-awareness of what it means to lose something of one's own and how to feel grief.

Hence we have seen that there is a parallel in what Ekstein and Bettelheim say about child care workers and what the previous authors say about psychotherapists. However it is important that one see that there is a difference. Grossbard (1963) points this out:

although the self-awareness necessary for cottage parents (child care workers) is of more factual and accessible nature than that required, for instance, by caseworkers, (therapists) it has special characteristics that, in certain respects, make it more complex and more difficult to sustain and practice. . . . While the self-awareness necessary for social workers extends more deeply and encompasses more subtle aspects of interactions, it is relatively narrower and more localized in time and place, usually being confined to a number of well-prescribed hours and to a well-protected setting - the office.

Cottage parents, however, have no exit and no retreat. They are continuously exposed, and it is often during these unguarded moments of spontaneous contact with children that the greatest need for self-awareness emerges. Youngsters readily perceive any gaps or clay feet and insist on many arduous hours of compensation from the cottage parents to modify these perceptions (p. 16).

Recommendations:

The first issue is how to increase the inter child care worker reliability of the perceptions of the personalities of the children.

The data indicate clearly that child care workers have consistent idiosyncratic perceptions of the children. At the institution where the data were collected it was also apparent that the structure of the residential program did not allow for as much communication as needed among workers in how they saw the children. Increased discussion might increase agreement. The data also demonstrate that some children are more difficult to describe than others. Recognizing this is important. If the staff is having trouble describing these children they are most probably also having trouble treating them. Study among the staff by the staff themselves together with a consultant could shed light on why they are having difficulty in describing a particular child. Is the child communicating something? Is he acting differently with different child care workers? Or as Ekstein warns, is he attempting to recreate his original nonunderstanding and disjointed family? The data also indicates that there are great differences among variables in how much the child care workers agree. This should be recognized by the staff as a constant factor. The author proposes that this be approached first through increased group training aimed at clarifying what to look for in the children's behavior. For example most beginning child care workers would not

see the hostility and passive aggression of a child's dropping of an ice cream cone the child care worker just bought him. Second and equally, if not more important, is the need for regular individual supervision where the child care worker can feel free to talk about personal problems in dealing effectively with the children. A major goal of each of these techniques must be increased self-awareness. Recall Bettelheim (1961) said that emotional involvement decreases one's ability to be objective. Grossbard (1963) writes that increased self-awareness increases one's "ability to split one's ego to function simultaneously both as a participant and as an observer" (p. 15).

Another recommendation is that child care workers be mindful that there is a natural inclination to overidentify with a new child. All clinicians should recognize this. Recall from the INTRODUCTION a study by Miller (1964) in which he found poor reliability among diagnosticians' descriptions of children based on a clinical interview. This poor reliability might be explained as a function of overidentification.

Much of the literature points out the importance of individual relationships of child care workers with the children, most notably Bettelheim (1955, 1966), Lourie and Shalman (1952) and Rosen (1963). The author strongly believes in this, provided staff turnover is at a minimum. Before assigning staff to work intensely with individual children, the administration of a residential treatment center should take heed of the results of this research. The three dimensions of Liking, Effectiveness, and Similarity were interrelated but the nature of this interrelation varied among child care workers. Two felt more effective with children they liked; two felt they liked children more

similar to themselves. These individual differences should be respected. Careful assignment should be based primarily on the child care worker's inclinations. Individual supervision to explore the child care worker's interest in the child would develop greater self-awareness in the child care worker simultaneously with effective treatment for the child.

The author feels that the major finding of this thesis is the importance that an individual child care worker's personality has on his perception of an individual child. Who and what he is will influence how he sees an individual child. Most residential treatment centers have placed emphasis on the personality requirements of an applicant for a child care worker position. How will he work with the children? Not enough emphasis is placed on helping the already hired and competent child care worker to be more effective with an individual child.

APPENDIX A

Instructions for Use of Child Personality Paired Comparison Instrument

You are being asked to give your descriptions of the personalities of the boys you work with. Each child care worker will be doing this for each child. For this purpose an instrument has been devised. You will use the entire instrument once for each child. Sixteen different statements describing a child are included in this instrument. The statements are individually paired with each other. Each statement is paired with all other statements, making 120 pairs in all in the instrument. With each pair you are asked to check off which of the two statements is more characteristic of the child. Which statement better describes the child? If you have known a child for a long time and he has changed, make sure you check off the statement that better describes the child now. The 120 pairs of the instrument are ordered randomly. You are being asked to go through the 120 pairs once for each child. Remember that it is most important that you give your own individual opinion. I do not want what you think his caseworker would say, or even what the other child care workers would say. I want your opinion. This study is for research purposes only, and hence your opinions expressed in this instrument are entirely confidential. It is of paramount importance for the research that you do not discuss any aspect of this research with any of the rest of the staff until all the data have been collected.

You will find some pairs much more difficult than others. Some will be very hard, some easy. In the event that you experience great difficulty in choosing (either both statements describe him

very well or neither does) merely check off the statement that is slightly more characteristic of him. But make sure you choose one or the other. Because each statement is paired with each other statement, making a choice between the two almost equally descriptive statements will not in the end distort the fact that you feel the two are almost equally descriptive. The final data will reflect this near equality. (If you do not follow this, take my word for it.) Again, make sure you make a choice for each pair.

On the left and right sides of the statements on the form you will find blanks. Use the left side if you are left-handed, the right side if you are right-handed. Since you shall be doing this for several hours I included blanks on the left side so that left-handed people would not be inconvenienced.

Work at a moderate speed. Do not spend too much time on any one pair, and try not to go back over pairs previously done. There will be some inconsistency in your answers. For example, you may indicate in one pair that A is more characteristic than B, and in another that B is more characteristic than C, and in another that C is more characteristic than A. Do not be concerned with this. Although it might seem undesirable, it is not, because it indicates that you consider these three statements about equally descriptive of the child. This is important information about the child.

APPENDIX B

The Child Personality Paired Comparison Instrument

_____ He has feelings of sexual attraction for members of his own sex. _____

_____ He has feelings of grievance, contempt, or hate for other people. _____

_____ He has feelings of sadness, hopelessness, and despair. _____

_____ He tries to influence the behavior, sentiments, or ideas of others. He seeks leadership roles in groups or to be influential and controlling in individual relationships. _____

_____ He tries to use others for his own benefit without regard to the needs of others. He is selfish, manipulative, untrustworthy. _____

_____ He has a low self-image and feelings of self-criticism and guilt. He is self-punishing. _____

_____ He feels motivated toward giving to the material and emotional benefit of others. _____

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APPENDIX C

Description of Data Collection of Personal Information

Up to now I have not told you all the parts of the data collecting. As I said before, the reason is that this would contaminate the data. The first part, which has now been completed, consisted of your descriptions of the children. The second and final part will consist of descriptions of yourself. You may have strong feelings against participating in this part of the research. You are free to discontinue. The self-descriptive part of the research will consist of three subparts. First you are asked to use the same instrument you used to describe the children to describe yourself as a child. Second to use it to describe yourself as you are now. Third you will be interviewed. The interview will be partly an inquiry into your thoughts and opinions of child care work and partly more self-description. The interview will be taped in order that a written transcript can be made. This will be rated by an outside judge who will not know you or the Home. For the judge all identification will be struck out of the transcript. The transcript will never be published in part or in whole. During this part of the research the assistant supervisors will be rating the effectiveness of the child care workers with the individual children. Of course this information is confidential, as is all information in this research.

APPENDIX D

Outline of the Interview

- I. What brought you to the field of child care work?
- What brought you to the Home?
- How long have you been working here?
- What are your future goals? Do you intend to stay in this field?
- What interests you about this kind of work?
- What do you dislike about it?
- II. I would like to ask you your opinion about several issues in residential treatment.
- How should a child be punished for bad behavior?
- What do you feel about the use of physical punishment?
- What do you feel about the use of Isolation?
- How should a child be rewarded for his good behavior?
- There is disagreement in the field of residential treatment about the amount a counsellor should get involved with a child, how close a relationship he should have. How do you feel about this?
- There are two types of residential treatment centers. One like the Home which is set-up where all of the child care workers work with all of the children. Another type is the cottage system where a specific child care worker is a permanent substitute for a given group of children and those alone. In general, a special assignment of individual staff to individual children. What is your opinion about the pros and cons of these two systems? Which system would you personally

feel most comfortable in?

What contact or relationship should the child care worker have with the child's parents?

III. I am now going to present several hypothetical crises. I want you to comment on how you would handle them.

X is having great difficulty in learning how to ride a two wheeler bicycle. He asks you to teach him. After a half hours work and several falls, he runs off screaming, "I can't do it, I can't."

You are walking through the shower room picking up wet towels and happen to see X masturbating in the shower. He knows that you saw him and in great embarrassment turns and hides his face to the wall.

Two boys are in the den having a fierce fight. They are about equal in size. You separate them. Each is screaming the other one started it.

You spent the afternoon on a one to one with X. Both of you seemed to have had a great time. This great time was unusual because he usually does not get along with you or anyone else on the staff. It is now after supper. You are sitting in the corner of the den away from the group. He charges into the room toward the group in order to watch TV. He nearly knocks over a table. You tell him to take it easy. He turns around and says, "Fuckin' bastard I'll do what I want. I don't have to listen to you, ass-hole."

It is lights out and two boys, roommates, have been sexed up for the last half hour. They have been teasing each

other - making gestures toward each other and attempting to grab each other's penises. Sex play is unusual for both boys. You tell them to be quiet and two minutes later they are laughing almost uncontrollably.

It is lights out and X asks you if he can get a drink of water. You give him permission. His real purpose was to get a chance to get into one of the other rooms to throw something at somebody. Five minutes later he says he has to go to the bathroom.

IV. We have completed the part of the interview dealing with child care work. I would like to know a little more about you. In the instrument which you used to describe the personalities of the children and yourself, there were sixteen statements. I would like to go through that list with you and have you point out which statements described an area you found troublesome as a child, as an adult, and any change that has taken place. It could have been troublesome because you were like the statement, but also if you were unlike the statement.

Finally of all these statements which have you experienced the most change?

the least?

Is there any child at the Home who you feel is much like you when you were a child? Who? Why?

Is there any child who is totally unlike you as a child?

Who? Why?

- V. Here is a list of the nine children you described. Pick the three children you find you are most effective with, defining effectiveness as the ability to understand and meet the needs of the child. Now pick the three you feel least effective with.

APPENDIX E

Instructions for the Outside Judge

Before you is an interview given to a male child care worker in a residential treatment center with disturbed children ages seven to thirteen. Previous to the interview the child care worker completed a personality descriptive instrument for each of ten children and twice as a self-descriptive device. The first time he described himself as a nine year old boy and second as he is presently. Each instrument consisted of 120 paired comparisons in which each of the sixteen descriptive statements were paired with each other one. The instructions were to circle the one which was most characteristic. At the time of the interview the interviewer had not looked at any of the data and the child care worker knew this.

Your task is to rate how much stress the child care worker experiences on each of the sixteen variables, separately as a child and as an adult. Stress can be there because he was like the statement which defines the variable or because he was unlike the statement. Go beyond what he gives in direct self-report. If when directly asked if he experiences stress with a personality variable, he gives an answer which contradicts your impression of him from other data in the interview, rate your impression.

Before you start reading the interview, read the definitions of the variables. They are in the order in which they are read in the interview. The numbers correspond to their order of presentation.

The interview is divided into several parts: the first is a

series of questions about how he got into child care work, the second is a series of questions about his opinions on several controversial issues in residential treatment. The third is a series of six critical incidents for which he is asked to tell how he would deal with them. In the fourth section the child care worker is read each of the sixteen statements and asked to tell if he experienced stress with them as a child and as an adult. The fifth section is a series of questions about the children, which he feels especially similar or dissimilar and with whom he feels most effective and least effective. Start reading at the beginning. When you reach the fourth section (the sixteen statements), start rating. Continue to read past this section and then re-read the first three sections. If from reading the fifth section and re-reading the first three, you change your mind, change your rating. By all means feel free to use all the data of the interview in arriving at your final judgement.

Note it is possible that a child care worker might express no feeling of stress when directly asked about a variable (in section four), but his comments in the other sections may give you the impression that there is stress. (For example: his reaction to controversial issues or critical incidents or his effectiveness with the children.) Rate your impression.

Note sometimes for a given statement (variable) the child care worker does not give information on both his childhood and the present. Try your best to give a rating for each.

CAPITALS are the interviewer's words, small letters are the child care worker's. Blanks (_____) are inaudible parts

of the tape. Their size is in proportion to the number of words missed.

There are some contradictions in the interviews. To my knowledge these are all genuine contradictions and not due to transcribing.

APPENDIX F

Reliability of the Outside Judge's Ratings of the Interviews

Part of the data for hypotheses II (b) and II (c) were ratings from an interview for stress in the child care workers' personalities. These ratings were made by an advanced graduate student in clinical psychology who knew nothing of the child care workers except what was in the interview. The interviews were also rated by the author who was the interviewer and also had outside information on each worker. Hence the author was not an objective judge, although he tried to restrict his ratings to the interview material. It was planned from the beginning of the research to use the objective, outside judge's ratings and not the author's. The author's ratings were to be used only as a measure of the reliability of the outside judge's ratings. Thus the stress ratings used to test hypotheses II (b), II (c), and II (d) are the outside judge's.

The stress ratings were done on a four point scale. Stress was rated both for the child care workers' childhood and adulthood (present). Tables A and B give the percent agreement between the outside judge and the author. The first column is the percent of exact agreement. The second column is the percent of agreement within one point in either direction on the scale. Differences in reliability among child care workers and between childhood and adulthood can best be explained by the variability in how clear the child care worker perceived this period in his life and hence how clear it was in the interview. Interestingly this corresponded exactly with the judge's and the author's impressions of the overall emotional stability of the child care workers. The higher the

TABLE A

Percent of Agreement Between the Author's and the Outside
Judge's Ratings of the Interviews of the Child Care Workers for
Stress in Childhood

N = 16

Child care worker	Type of Agreement ^a	
	Exact	Within One
A	56%	100%
B	56%	94%
C	81%	100%
D	69%	100%

Note. - % of Agreement is the percent of the sixteen personality variables that the two raters agree on. These are the same sixteen variables as used in the Child Personality Paired Comparison Instrument.

^a Exact is perfect agreement between raters; within one is agreement within one point on either side of the other rater. The stress scale is a 4point scale.

TABLE B

Percent of Agreement Between the Author's and the Outside
Judge's Ratings of the Interviews of the Child Care Workers for
Stress in Adulthood

N = 16

Child care worker	Type of Agreement ^a	
	Exact	Within One
A	81%	94%
B	63%	94%
C	75%	100%
D	56%	100%

Note. - % of Agreement is the percent of the sixteen personality variables that the two raters agree on. These are the same sixteen personality variables as used in the Child Personality Paired Comparison Instrument.

^a Exact is perfect agreement between the raters; within one is agreement within one point on either side of the other rater. The stress scale is a 4point scale.

reliability the more emotionally stable. There was exact agreement between the judge and the author on the ranking of workers on emotional stability and this ranking corresponded perfectly with the reliability.

Hypothesis II (c) used a "lessening of stress from childhood to adulthood." This was calculated by subtracting the adult rating from the childhood rating. If the difference was greater than zero this was called a "lessening of stress from childhood to adulthood." Percent agreement between the outside judge and the author is given in Table C. Differences in reliability across child care workers was primarily due to how much the child care worker reported change from childhood to adulthood. The more change, the poorer the reliability.

Hypothesis II (d) used a total stress score across all child care workers. This total ranged potentially from 4 (all four child care workers receiving a minimum stress score) to 16 (all four child care workers receiving a maximum stress score). Thus it was potentially a 13-point scale. In actuality for these child care workers it ranged from 4 to 10, a 7-point scale. Percent agreement between the outside judge and the author are given in Tables D and E. For the adulthood ratings, percent agreement was within one point for eleven variables; for the childhood ratings, percent agreement was within one point for the same eleven variables and two more. Correlations between stress and reliability were done for these eleven variables with common one point agreement for both the childhood and adulthood ratings.

TABLE C
Percent of Agreement Between the Author's and the Outside
Judge's Ratings of the Interviews of the Child Care Workers for
Lessening of Stress from Childhood to Adulthood

N = 16

Child care worker	Agreement ^a
A	81%
B	88%
C	94%
D	88%

Note. - % of Agreement is the percent of the sixteen personality variables that the two raters agree on. These are the same sixteen personality variables as used in the Child Personality Paired Comparison Instrument.

^a Agreement occurred when either both raters rated no change or gave a lower stress score for a variable in adulthood than in childhood.

TABLE D
 Percent of Agreement Between the Author's
 and the Outside Judge's Ratings of
 Total Stress in the Childhood of the Child Care Workers

Variable	Type of Agreement ^a		
	Exact	Within One	Within Two
Affection	0	/	/
Aggression	/	/	/
Auto-eroticism	0	/	/
Competition	/	/	/
Compulsivity	/	/	/
Dependency	0	/	/
Depression	0	0	/
Dominance	0	0	0
Homosexuality	/	/	/
Hostility	0	/	/
Inferiority	0	0	/
Intelligence	0	/	/
Narcissism	/	/	/
Self-hatred	/	/	/
Social Maturity	0	/	/
Withdrawal	/	/	/
% Agreement ^b	44%	81%	94%

Continued

TABLE D

Continued

Note. - Total Stress is the sum of the four stress scores given individually by the rater to the child care workers. Agreement between the raters is symbolized by /; lack of agreement by O.

a Exact is perfect agreement between raters; within one is agreement within one point on either side of the other rater; within two is agreement within two points. Total stress scale is potentially a 13-point scale.

b % Agreement is the percent of the sixteen variables on which there is agreement.

TABLE E
 Percent of Agreement Between the Author's
 and the Outside Judge's Ratings of
 Total Stress in the Adulthood of the Child Care Workers

Variable	Type of Agreement ^a		
	Exact	Within One	Within Two
Affection	0	0	/
Aggression	0	0	/
Auto-eroticism	/	/	/
Competition	0	/	/
Compulsivity	0	/	/
Dependency	0	/	/
Depression	0	0	/
Dominance	0	0	/
Homosexuality	0	/	/
Hostility	/	/	/
Inferiority	0	0	0
Intelligence	0	/	/
Narcissism	/	/	/
Self-hatred	0	/	/
Social Maturity	0	/	/
Withdrawal	0	/	/
% Agreement ^b	19%	69%	94%

Continued

TABLE E

Continued

Note. - Total Stress is the sum of the four stress scores given individually by the rater to the child care workers. Agreement between the raters is symbolized by /; lack of agreement by 0.

a Exact is perfect agreement between raters; within one is agreement within one point on either side of the other rater; within two is agreement within two points. Total stress scale is potentially a 13-point scale.

b % Agreement is the percent of the sixteen variables on which there is agreement.

APPENDIX G

Design and Method: In Retrospect

If the author were to do this research over again he would feel comfortable with most of the same design and method.

The definition of one of the variables, Intelligence, would be changed. Recall in the Child Personality Paired Comparison Instrument only the statements (the definitions of the variables) were given, and not their labels. The definition of Intelligence was taken from Wechsler (1968). Unfortunately it is a broad definition and the child care workers complained it encompasses a great deal of emotional adjustment as well brightness. They rated a bright, but severely emotionally disturbed child as low on this variable.

The author was pleased with the methods for rating Liking and would use the same methods again.

Self-Rated Effectiveness was measured too grossly on a forced 3-point scale. This made comparison with the Liking data difficult. If done again it is recommended that the same three methods of scaling for Liking be used for Self-Rated Effectiveness.

The supervisors' ratings of the staff for Effectiveness was unsuccessful. However if done again the supervisors would also be asked to rank order (1) the variables and (2) the children for overall staff effectiveness. These ratings would be correlated with the inter child care worker reliabilities.

The child care workers would be asked to rate effectiveness of each other.

Added to the interview would be direct questions of what problems the individual children were overcoming now. The child care workers

would also be asked what problems they themselves were dealing with at present. Data analysis would be done comparing the staff and children.

Particularly successful were the interview and the paired comparison methods for describing the personalities of the children and for differentiating the children along the dimension of Liking. With the exception of changing the definition of Intelligence in the Child Personality Paired Comparison Instrument these two paired comparison methods would remain the same.

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