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## The Importance of Hippocampal Remnants in Discrimination Ability

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ASSESSMENT OF CHILDREN'S ATTITUDES  
TOWARDS THEIR INSTITUTIONAL ENVIRONMENT

by  
Rudolph R. Deyle

A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University in Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Philosophy

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## LIFE

Rudolph R. Deyle was born on June 27, 1930, in Cheyenne County, Kansas. In 1949, he was graduated from the St. Francis Community High School in St. Francis, Kansas. He taught school in Dundy County, Nebraska during the school term of 1949-50 and entered McCook Junior College, McCook, Nebraska, in the Fall of 1950.

Schooling was interrupted in 1950 when he entered the United States Navy, serving until 1954 as a flight radio operator and technician in the Air Division. Following his honorable discharge from the Navy, he attended the University of Denver, Denver, Colorado, receiving the degree of Bachelor of Arts in 1958 and the degree of Master of Arts in 1959.

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## CHAPTER I

### INTRODUCTION

Throughout the years, there has been considerable interest in the effects of maternal separation upon children. Although this interest has been most evident since early in the twentieth century, the earliest reported experiment in this area is attributed to King Frederick II during the thirteenth century (Stone, 1954). With few exceptions, the studies in this area have focused on the pathological consequences of removing the child from his mother and the parental environment and placing him within an institutional setting. Various negative aspects of institutionalization, together with the inability of the child to experience continuing, meaningful relationships within such an institution, have been pointed to as contributing factors in the institutionalized child's continuing and later poor adjustment. The usual solution offered to prevent the pathology occurring in such cases was to suggest that adequate mothering be provided for these children through adoption or placement in a foster home, if placement with the natural parent remained impossible. However, the provision of an adequate family environment for the many children who are placed in institutions is difficult and suggests that other solutions should be sought.

A different approach to studying the above problem is suggested by

investigators who have focused on the mental hospital. Some of their studies have found that the attitudes held towards the treatment facility by the patient, his family, and the hospital staff have a profound influence on whether or not the patient manifests improvement (Klett, 1963; Reznikoff, 1959). Considerable evidence is available to suggest that positive changes in behavior and in attitudes can be accomplished within an institutional setting (Bettelheim, 1950; Klett, 1963; Pisani, 1965; Redl, 1952). Although direct inference cannot be made from the institutions involved in the foregoing studies to the institution and children under consideration in this study, they indicate a possible fruitful direction in which to proceed.

#### Purpose of the Investigation

The purpose of this study is to develop a reliable and valid attitude scale for evaluating the child's attitudes towards his institutional environment. This instrument will then be used in an experimental investigation to determine whether a positive change can be brought about in the child's attitudes towards the institutional environment through the use of a social psychological process.

The following hypotheses are formulated as the primary concerns of this investigation:

1. There will be a high correlation between the scores obtained on two halves of the Scale. Specifically, a coefficient of internal consistency will be obtained by determining the correlation between the respondents scores on the even numbered statements of the Scale and their

scores on the odd numbered statements. It is assumed in this hypothesis that a high coefficient of internal consistency indicates that the statements are interdependent and therefore homogeneous, permitting the assumption that the Scale is unidimensional and reliable.

2. If the Scale is a valid measure of the children's attitudes toward the institutional environment, then there should be a high correlation between the respondent's score on the Scale and his score on a concurrent criterion measure. Specifically, a correlation between the summated score obtained by the respondents on the Scale and their score obtained on the Essay will be obtained. It is assumed in this hypothesis, that statements written by the respondents about a psychological object, are reflective of their attitudes towards that object.

3. There will be a high correlation between the summated score obtained by the respondents on the Scale and the summated score obtained on the Staff Rating Scale for each respondent. Specifically, the correlation between these two independent measures will be made, providing an estimation of concurrent validity and the extent to which the Scale assesses the variable that it was designed to measure --- attitudes toward the institutional environment. It is assumed in this hypothesis, that individuals having intimate association with a particular child can assess his attitudes toward a psychological object and can rate that child on a scale prepared for that purpose.

4. The institutionalized child's attitudes towards his environment can be altered in a positive direction by means of a social psychological

process. Specifically, the pretest-posttest scores of the experimental subjects as obtained on the research instrument, will be compared to those obtained by their matched control subjects. A significant difference in favor of the experimental group will indicate that the experimental variable facilitated positive attitude change. It is assumed in this hypothesis that the developed research instrument (the Angel Guardian Rating Scale) is a reliable and valid attitude scale.

The goals of this project are as follows: 1). provide the child-caring institution with a reliable and valid instrument with which to assess the attitudes of children towards the institutional environment and subsequently provide the institutional staff with a measure of the effectiveness of their program; 2). aid in determining those children who may be in need of special therapeutic measures; and 3). provide experimental evidence to the institutional staff that positive changes in the children's attitudes can be brought about through the use of a specific form of social psychological processes which can be readily incorporated into the institutional program.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

The review of the literature will focus on the following areas: 1). effects of maternal separation on children and the institutionalized child; 2). attitudes and attitude scales; and 3). social psychological processes and attitude change.

1). Effects of Maternal Separation on Children and the Institutionalized Child.

The majority of the early studies conducted in this area have consistently agreed upon the deleterious effects of maternal separation and institutionalization upon the young child. Comprehensive reviews of these studies (Bakwin, 1949; Bowlby, 1951; and Stone, 1954) revealed that the focus had been on those children who were subjected to maternal deprivation from birth through two or three years of age. These early studies, which were based on rather casual clinical observations, concluded that maternal separation adversely affected the child's intellectual, social and personality functions. Although subsequent studies, using a more quantitative approach led to some modification of the earlier findings, they continued to support the adverse consequences of maternal deprivation and institutionalization. Comprehensive reviews of the more recent studies are to be found in Casler (1961), Glaser (1956), Howells and Layng (1955), World Health Organization (1962), and Yarrow (1961). Comprehensive

over-views of all research up to the time of their reviews were made by Witmer, et al. (1962) and Yarrow (1964).

Writers in this area have, in general, related the detrimental effects of institutionalization to the various kinds of deprivation experienced by the child. Goldfarb (1945) writes of the consequences of the psychological deprivation experienced by the infant in the institution:

There is a cumulative evidence that an extensive period of deprivation of babies in an infant institution is profoundly detrimental to their psychological growth. There is also evidence that the pernicious effects of the early experience persists even in the face of careful placement in selected foster homes, casework supervision and, in some cases, psychiatric treatment. The extreme deprivation experience of the institutional children has apparently resulted in a quasi-constitutional fixation on the most primitive levels of conceptual and emotional behavior. (Goldfarb, 1945, p. 32).

Rhodes and Matthews (1957) reported what they felt were the "indices of maternal deprivation in young children" as experienced through extended institutionalization: Weight loss and physical deterioration without apparent physical basis; fixed smile without appropriate stimulation; monotonous and patterned rocking and other forms of self-stimulation, which are not readily interrupted; excessive preoccupation with self and failure to react to normal external stimulation; reaction with anger or unusual excitement if the child's preoccupation or isolated activity is interrupted by another.

Bakwin (1942) elaborated on the negative effects of extended hospitalization of infants. Although receiving an adequate diet, the infants failed to gain properly. He found that they were listless, apathetic,

appeared unhappy and seldom smiled or babbled spontaneously. Their appetites were poor and they slept less than infants who were in their own home. Defecation was more frequent and infections of the respiratory tract often persisted for months, whereas the usual term for the infection if the infant were at home would have been one or two days.

Many authors have felt that intellectual retardation is a frequent consequence of institutionalization. Spitz (1945, 1946) and Fisher (1952, 1953) found general intellectual retardation in infants and young children in institutions. Goldfarb (1945) found similar results in older children and adolescents and expressed the view that the younger the child is at the time of institutionalization, the greater the possibility of his being retarded. Studies by Beres and Obero (1950) and Dennis and Najarian (1957) suggested a critical period for the child's subsequent intellectual development. They found that infants who failed to experience adequate intellectual stimulation between the ages of 3 to 12 months showed subsequent retardation.

Spitz (1945) and Fisher (1952, 1953) found that the degree of intellectual retardation appeared related to the length of time the child had been institutionalized --- the longer the term of institutionalization, the greater the degree of retardation. However, later studies by Rheingold (1956) and Rheingold and Bayley (1959) did not find this relationship --- possibly because they reported on institutions that had attempted to provide individualized stimulation and a consistent relationship between a parental figure and the infant.

Levy (1937) found that children who had been deprived of maternal love and care during infancy demonstrated shallow effect and various "neurotic symptoms." These symptoms were felt to have resulted from deficient social relationships and the children continued to manifest consistent difficulties in establishing appropriate relationships with others.

Milton (1957) feels that it is essential that the child be provided with stable early relationships. That it is through such stability that the child establishes clear concepts of himself and others. Through the support and acceptance of loving parents, he becomes able to share this love with others.

The adult adjustment of individuals who have experienced maternal deprivation as infants and children presents difficulties which contributes to the overall problem in this area. Such adults, as parents, have been found less able to care properly for their own children. Bowlby (1952) states that those adults who have been deprived of a normal home life during their childhood are many times unable to provide a normal home life for their children. A set of circumstances which is "self-perpetuating" and which leads from one generation to the next of individuals unable to provide an appropriate home life.

Similar findings are reported in the comparative studies by Harlow and Harlow (1962). They found that female monkeys who had been poorly mothered, became poor mothers themselves. The female monkeys who were reared without mothers of their own -- with either no substitute or with cloth surrogates -- did not make maternal responses to their own infants

and consistently rejected the infant's attempts to make contact with them. These mothers were also labeled as being extremely aggressive towards other monkeys and with only one exception did they exhibit what was felt to be normal sexual behavior.

The studies by Goldfarb (1943, 1944) presented results of maternal deprivation which would offer a good explanation why such children would experience difficulty in later family relationships. The deprived child displays an "affect hunger" -- indiscriminately seeks to gratify what appears to be an insatiable need for attention and affection, apparent absence of guilt following hostile, cruel, or unprovoked aggressive acts. With a persistence of such characteristics into adulthood it would appear unlikely that the individual would be able to establish appropriate relationships with others.

Lowrey (1940) states that the effects of deprivation experienced through institutionalization results in an "isolation type of personality, characterized by insocial behavior, hostile aggression, lack of patterns of giving and receiving affection, inability to understand and accept limitations, much insecurity in adapting to environment." Small wonder that individuals with such problems would be unable to establish a mature emotional relationship with a marital partner, let alone to the children resulting from such a union.

Studies by Rheingold and Bayley (1959); Rheingold, Gerwirtz, and Ross (1959); Fisher (1952); and Goldfarb (1945) all found that language development in the institutionalized child was consistently retarded. For

the development of speech, Berelson and Steiner (1964) report the following as being important: The number of adults in daily contact with the child (children who associate mainly with adults acquire language more rapidly than children whose primary association is with other children); amount of exposure to and stimulation by verbal materials; and number of playmates. They found that institutionalized children were slower in language development than children in the lowest socioeconomic homes and that the speech handicap was likely to be permanent.

Sears, Maccoby, and Levin (1957) state that the greater the love-oriented control of the child, the stronger the development of guilt when he misbehaves. Withdrawal of love when combined with warmth for the child are effective in producing a strong conscience. Excessive parental punishment, lack of warmth, or failure of the child to identify with the parent -- the less adequate is the conscience development. Inconsistencies between parental behavior and teachings and a lack of consistency in the moral values taught, the less adequate is the conscience development.

The lack of warmth from the parental figures in the institutional setting; the inconsistencies which are likely to be found both in the teaching and between the teaching and behavior of the many figures interacting with the child, may be hypothesized as being the basis for the slow development and subsequent weakness of the institutional child's conscience.

Sears et al. (1953) reported that rigidity in feeding schedules

and excessive pressures in efforts to wean the infant tends to foster dependency in early childhood years. The more rejection experienced by the child -- the more dependent he becomes. If prematurely forced towards independence -- the more anxious he is about independence in adult life. Minimal nurturance or satisfaction obtained during the early years of infant dependency -- may result in either minor dependence on others or excessive generalized dependency. Overprotection and excessive permissiveness results in excessive dependency or in rebellious and defiant behavior.

McClelland et al. (1953) gives the contributing factors in the development of ambition and drive for achievement in the child as being early encouragement and reward, together with high ratio of success to failure.

Some authors have reported studies which did not reflect negative effects as a result of the child's having been institutionalized. The study by Dennis (1938) in which he reared two infants for the first seven months of their life with "minimal social stimulation" reportedly had no detrimental effect on their subsequent social and emotional development. However, the writer suspects that what Dennis considered as minimal, was in reality adequate for normal development and more than an institutionalized child might receive.

After a comprehensive review of the literature, Orlansky (1949) concluded that there may have been some exaggeration of the influence of events experienced by the infant during the first one or two years of his life in forming his basic character structure. He suggests that the

character structure is only tentatively laid during these early years and that it is the subsequent events experienced by the child as he progresses towards adulthood which either perpetuates or alters this basic structure.

Although this certainly indicates a more favorable picture for the infant who experiences early institutionalization and who, through subsequent placement in an adequate foster or adoptive home or institution, is then provided with the necessary interpersonal experiences, the child who finds his early institutional experiences reinforced by continued institutional placement or by frequent transfers from one placement to another, will not have the opportunity to alter his basic personality structure.

Later surveys by Radke-Yarrow and Yarrow (1955 and Winch (1957) indicated that clear evidence indicating the manner in which early life experiences contribute to subsequent development is lacking.

A report by Wootton (1962) emphasized the need to consider the possibility that deviations in personality and behavior which have so often been attributed to separation, may in fact, be the consequence of congenital factors. Yarrow (1964), in his latest comprehensive review of the literature, presents the following as crucial variables related to the consequences of institutionalization and maternal deprivation:

...the developmental stage of the child at the time of separation; the character of relationship with the mother prior to separation; the character of maternal care during a temporary separation or following permanent separation; subsequent experiences, that is, experiences which are reinforcing or ameliorating of separation trauma; and individual difference in vulnerability to separation (Yarrow, 1964, p.121).

Bettelheim and Sylvester (1948) describe an institutional environment characteristic of those institutions resulting in the pathological consequences found in the foregoing review of the literature. They state that it is a rigid, comprehensive, and impersonal regime which allows no room for individual decisions on the part of the children and demands only their compliance. In general, the studies agree that the institutional environment is lacking in sensory, emotional, and social stimulation -- together with providing minimal opportunity for the acquisition of learning. However, the majority of the studies dealing with institutionalization have not been sufficiently descriptive of the institutional environment to permit adequate assessment of the particular variables found there.

Yarrow (1961) states one of the limitations relative to the studies on maternal deprivation: "It is apparent that the data on maternal deprivation are based on research of varying degrees of methodological rigor. Most of the data consist of descriptive clinical findings arrived at fortuitously rather than through planned research, and frequently the findings are based on retrospective analyses which have been narrowly directed toward verification of clinical hunches." (Yarrow, 1961, p. 487)

The writer found no studies in his review of the literature which attempted to systematically assess the institutionalized child's perception or evaluation of his institutional environment. However, studies dealing with institutionalized delinquent, emotionally disturbed, and alcoholic patients have demonstrated that not only is subsequent

improvement profoundly influenced by the patient's attitudes but that positive changes in the patient's attitudes and behavior can be brought about within the institutional setting (Bettelheim, 1950; Klett, 1963; Pisani, 1965; Redl, 1952; Reznikoff, 1959).

A description of the institutional environment of those children involved in this study is to be found in Appendix X.

## 2). Attitudes and Attitude Scales

As indicated by Allport (1935), Spencer was the first psychologist to use the term "attitude" over one hundred years ago. Since that time there have been considerable investigations relative to this concept with various definitions being given by the investigators. Allport (1935) reviewed sixteen definitions of attitude, found common elements among them, and formulated his own definition of attitude as:

"A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."  
(Allport, 1935, p. 810)

Similarity is noted between this definition of attitude and the one formulated by Bogardus in which he states attitude as being a "tendency to act toward or against environmental factors which become thereby a positive or negative value." (Bogardus, 1928, p. 101)

Nelson (1939) following the example set by Allport (1935) reviewed the various definitions of attitude up to the time of his review, found twenty-three characteristics of attitudes and gave the following definition of attitude:

"... a felt disposition arising from the integration of experience and innate tendencies which disposition modifies in a general way the responses to psychological objects." (Nelson, 1939, p. 381)

These early definitions suggest that attitudes are related to past experiences and innate characteristics which provide a tendency for the individual to respond in a particular way towards a psychological object.

It has only been in the more recent definitions of attitude by Green (1954), Krech and Crutchfield (1948), and Thurstone (1946) that the additional element of affectivity has been added. Klett (1963), Pisani (1965), and Webb (1959) used Thurstone's operational definition of attitude as they felt it provided a rationale for attitude measurement. Attitude is defined by Thurstone as "The degree of positive or negative affect associated with some psychological object." (Thurstone, 1946, p. 41). Thurstone's definition of attitude will be used for this study.

Although many methods have been proposed and used in attempting to evaluate attitudes, two methods have become widely used in developing attitude scales. In one method, a collected set of statements is submitted to a group of judges for their determination of the favorableness or unfavorableness indicated by each statement. This method includes the methods of paired comparisons (Thurstone, 1927) equal appearing intervals (Thurstone and Chave, 1929) and successive intervals (Hevner, 1930). In the second method, a collected set of statements is submitted to a group of respondents who then indicate the extent of their agreement or

disagreement with them. This method includes the method of summated ratings (Likert, 1932) and scaleogram analysis (Guttman, 1944).

The development of the Thurstone type scale and the Likert type scale will be considered in detail as the writer will use a combination of these two methods in this investigation.

The Thurstone Scale. In the method of equal-appearing intervals, upon which the Thurstone Scale is based, the subject is presented with a series of stimuli with the instruction to sort them into a limited number of categories (the number of categories being specified) so that the intervals between the categories will be subjectively equal. In such a method, the subject must assume a linear continuum along which he is expected to place the stimuli so that they will appear to be appropriately placed. (Torgerson, 1958).

Thurstone's method of constructing attitude scales is termed a psychophysical method which is considered to be a multiple-stimuli method. It is a continuation of Cattell's early efforts to extend the psychophysical methods to the measurement of social stimuli. The early psychophysical methods were developed to measure simple sensory stimuli and led to the formulation of Weber's and Fechner's laws. Although Cattell extended these methods to apply to the measurement of social values, the Weber and Fechner laws were not completely applicable as there was no longer the simple physical property or stimulus. However, the underlying assumption that "equally often noticed difference, properly defined, as a unit of measurement" was maintained as applicable to the social values (Thurstone and Chave, 1929).

Although Thurstone questioned the possible validity of using the equal-appearing intervals method in the construction of his attitude scales, feeling that the "ideal unit of measurement for the scale of attitudes is the standard deviation of the dispersion projected on the psychophysical scale of attitudes by a statement of opinion, chosen as a standard" (Thurstone and Chave, 1929, p. 19), the labor involved in such measurement was considered prohibitive with him choosing the equal-appearing intervals method which still allowed the comparative judgements to be made.

The typical construction of Thurstone type scales proceeds in the following manner. A large number of short statements, reflecting expressions of opinion towards some subject or issue ranging from extremely favorable, through neutral, to extremely unfavorable are selected. These statements, each reproduced on separate sheets of paper are presented to a large number of judges (usually 100 to 300 in number) with instructions to sort them into eleven piles which have been designated A through K. Those statements which are the most favorable towards the subject are placed in category A, those being neutral in category F, and those being the most unfavorable towards the subject in category K. In the categories between A-F and F-K are placed the remainder of the statements in accordance with their degree of favorableness or unfavorableness.

The scale values of the various statements were determined by constructing a graph for each statement, placing the accumulated frequencies on the ordinate of the graph and the category numbers on the

abscissa. This is called an accumulative frequency graph and is constructed in such a manner so that the percentage of judges placing the statement in or below each category is indicated by the vertical axis. The median position of a statement, as assigned by the judges, is the 50th percentile as indicated by the graph. The median, thus obtained, indicates the scale value of the statement. These scale values obtained for each statement make it possible to then select and place these statements so that they are equally spaced along the attitude continuum.

These cumulative frequency graphs also show the variability of the categories to which they were assigned by the judges. Thurstone employed  $Q$  (half the distance between the 25th and 75th percentile points) as the index of variability. This index was considered to represent the ambiguity of the statements and when high resulted in eliminating the statement from the final scale.

Thurstone used a further check in developing his scale; that of irrelevance. This was found by presenting the statements to subjects who were instructed to check those with which they agreed. Through statistical analysis, the internal consistency of the responses was then obtained. Those statements which did not meet the necessary criterion of internal consistency were considered irrelevant to the variable being considered and consequently dropped from the scale (Thurstone, 1928).

Underlying Thurstone's scaling method is the assumption that regardless of the attitudes held by the different judges, they will find it equally easy or difficult to determine which of two statements is merely favorable or unfavorable. He assumes that the attitude distribution

of the judges who sort the statements will in no way affect the scale values of the statements (Thurstone and Chave, 1929). Studies by Hinckley and Rethlingshafer (1951), Hovland and Sherif (1952), and Upshaw (1962) provided experimental evidence which contradicted this assumption. Hinckley and Rethlingshafer (1951) found that when men were asked to judge heights on a scale from short to tall, their resultant scale values were influenced by their own height. Hovland and Sherif (1952) found that judges holding very strong attitudes on an issue concentrated their placement of items in a smaller number of categories with the neutral statements tending to be displaced to the extreme categories. Upshaw (1962) found evidence to suggest that potentially discriminative statements which are perceived as "ambiguous" by the judges, might be eliminated by them before the respondents had a chance to rate them.

The Likert Scale. As in other methods of attitude scale construction, Likert et al. (1934) attempts to place the individual at a specified point on a continuum ranging from favorable to unfavorable attitudes. Likert's method of selecting statements for use is considerably different than that used by Thurstone, in that his items are administered to subjects and then selected on the basis of how the subjects responded to them. Another difference is that the scale values obtained by Likert are influenced by the degree to which the subjects found the attitude statements to be favorable or unfavorable.

Likert's method of attitude scale development begins with the selection of a pool of items. These items are then administered to a

group of subjects, just as though the scale had already been completed. There are five scaling categories (strongly agree, agree, undecided, disagree, and strongly disagree) with which the subject indicates the favorableness or unfavorableness of the statement. As Likert's method depends upon the ability to classify each statement in a favorable or unfavorable category, those statements which were felt to be neutral were excluded. After classification of the statements in their respective categories, each item was individually checked for internal consistency. This check is made on the assumption that if a group of individuals respond favorably to certain items, whereas in general they respond to other items as being unfavorable, then these items must not be measuring the same attitude and are therefore rejected. (The reverse of this would also be followed.) This technique may be repeated several times using different groups of subjects, with the result being that the final attitude scale should consist of items which have high internal consistency and, consequently, high split-half reliability.

The scale is scored by crediting the response with a numerical figure (5 through 1) with the 5 being assigned to the favorable end of the continuum and the 1 to the unfavorable end. Consequently a "strongly agree" (SA) response for a favorable statement would receive a value of 5 as would a "strongly disagree" (SD) response for an unfavorable statement. The individual's score is determined by summing the obtained values of his responses. In typical scales of this type, his score is then evaluated in terms of norms which have been empirically established.

The relationship of the item score to the total score on the set of items is an index of the discriminating power of the item. Items with high discriminating power are selected for the final form of the questionnaire. One index used is the critical ratio (CR). A second computation which was felt to be somewhat superior to the CR index is the correlation between the item scores and the total score. This is considered superior to CR as it makes direct use of the scores of all the respondents, rather than just the scores of the two subgroups (Green, 1954).

The principal criticism of Likert's (1932) summated ratings technique is that it fails to measure all degrees of attitude with the most frequent inadequately measured area being the middle range (Fergusen, 1939; 1941).

McNemar (1946) suggests that the limitations in both type of scales can be most effectively overcome by a combination of the summated ratings method and an appropriate scaling technique. Klett (1963), Pisani (1964), and Webb and Kobler (1962) demonstrated that through combining the Thurstone and Likert methods of scale construction utilizing the clinical-empirical method of Webb and Kobler (1962) the limitations specific to the Thurstone and Likert methods could be overcome.

Although the current study will essentially follow the design used by Klett (1963), Pisani (1964), and Webb and Kobler (1962), the content of the scale and the population used in its development were different. The study by Webb and Kobler (1962) assessed the attitudes of religious towards psychiatry. Klett (1963) developed his scale to assess the morale of patients in a psychiatric hospital setting. Pisani (1965)

constructed his attitude scale to assess the attitudes of alcoholic patients toward an in-patient treatment facility.

The attitude scale constructed for this study assesses the attitudes of children toward their institutional environment. The population for the study are institutionalized children who are not defined as emotionally disturbed and whose environment is not a treatment facility.

### 3). Social Psychological Processes and Attitude Change

The role of learning has usually been stressed in the acquisition or change of an attitude. A review of the literature indicated that attitude change may occur through individual or social psychological processes. The experimental portion of this study attempts to bring about attitude change through the use of a social psychological process. The term "social psychological process" is used to designate the interaction and communication (both verbal and non-verbal) between members of a group as distinct from the privacy of individual relationships. For clarification purposes, social psychological process may be considered analogous with group therapy and individual psychological process with individual therapy. The review on attitude change will focus first on historical developments and then on those particular studies in which attitude change results from interaction or communication within groups.

Historically, the focus upon specific social phenomena may be considered to have begun with Tarde in 1890 (Newcomb, 1950). At that time he formulated his "law of imitation" with this having relevance to group influences. Tarde was followed by Sighele with his concepts concerning the "Criminal Crowd", and LeBon with his "crowd psychology." These

individuals had drawn heavily upon the psychopathological experiences of individuals from essentially clinical settings and led the way in establishing the concept in social psychology dealing with group influence (Newcomb, 1950). Allport (1924), in what was the first publication in social psychology, turned the thinking from the "group mind" to the individual as influenced by his social environment. Important contributions were made by Lasker (1929) in his study concerning the racial attitudes of children and Horowitz (1936) who outlined the growth of children's attitudes towards negroes. Sherif (1935) demonstrated the influence of a group upon the perceptions of its members and was able to show that the individual tends to move towards conformity with the group's norms. Bruner and Goodman (1947) and Bruner and Postman (1947) demonstrated how an individual continues to be strongly influenced by his early social experiences and his continuing social environment. Heider (1944) made a contribution in that he was able to demonstrate that an individual learns and is influenced by, not only those things which he experiences himself, but also through his perception of the experiences of others.

In general, studies concerning attitude change have attempted to focus on some particular aspect within the situation which has facilitated change. Janis and King (1954) made an effort to determine if opinion change was facilitated by the overt verbalizations of subjects who were role playing. Male college students were assigned at random to two experimental groups. In one of these groups the subjects were active participants, who played the role of a sincere advocate of the

given point of view. The second group was composed of subjects who were considered passive controls and who silently read and listened to the same communication. The experimentors found that the active participants tended to be more influenced by the communications than did the passive controls, supporting their hypothesis. A possible mediating factor underlying the gain in opinion change due to active participation was that the greatest increase occurred in those subjects who improvised a great deal in their verbalizations and were satisfied with their performance.

Following the lead indicated by their earlier study, King and Janis (1956) compared the effectiveness of improvised versus non-improvised role playing relative to consequent attitude change. In improvising their own arguments to defend an opinion in the role playing, the authors suggest that the subjects become cognitively aware of opposite arguments co-existing within themselves. Although the results suggested that this type of communication tended to produce attitude change, such factors as social reinforcement, sex, age, and opinions held prior to the role playing place limitations upon their findings.

Another aspect considered by many of the investigators in this area is the effect of leadership style on attitude change. Hare (1953), using children, studied the effects of participatory and supervisory leadership on changes in group judgement. Participatory leadership was found to be more effective in producing attitude change.

Kipnis (1958) studied attitude change in children relative to their reading habits. Participant and directive leadership styles were used together with punishment and reward. Participant leadership produced more

attitude change than did directive leadership when the leadership style was associated with neutral power or the power to reward the subject's compliance.

Quay et al, (1961) assessed the effectiveness of three differing methods of communication upon attitude change (lecture, discussion, and booklet). They were attempting to change the attitudes towards the mentally retarded in attendant employees in an institution. They found a significant attitude change only in the lecture groups (contradictory to the usual findings) with the discussion groups changing the least. However, poor experimental design and control were felt to have contributed to these feelings.

Some studies have focused on the personality and emotional characteristics of individuals as related to attitude change. Zolik and Welsand (1963) attempted to change parents' attitudes towards child-rearing through giving them a course in child psychology. They found attitude change to be dependent upon both the relevance of the material communicated to the subjects and their personality characteristics. Cervin et al. (1961) found more frequent attitude change in emotionally reactive subjects when they had to publicly express their attitudes. Raven (1959) found group pressure to be influential in producing attitude change, especially when these attitudes (opinions) were subjected to public appraisal. Lawson and Stagner (1957) were felt to have focused on an important element in these foregoing studies, in that they found attitude change during group discussion to be associated with anxiety.

Kerrick and McMillan (1961) found instructional set to be influential

in attitude change. They found that informing the subjects that the communication being presented to them was expected to change their attitudes, inhibited the total movement along the attitude dimensions with there being a tendency for the attitudes to change in the opposite direction from that advocated by the communication. On the basis of their findings, the authors cautioned that every effort should be made to mask the purpose of attitude change experiments.

Festinger (1964) raises a question which is felt to be especially relevant to the present study. He asks whether there is a positive relationship between opinion (attitude) change and behavior and states his own position:

It is my present contention that, in order to produce a stable behavior change following opinion change, an environmental change must also be produced which, representing reality, will support the new opinion and the new behavior. Otherwise, the same factors that produced the initial opinion and the behavior will continue to operate to nullify the effect of the opinion change. (Festinger, 1964, p. 416)

The review of the literature supports the view that interaction and communication within groups can bring about attitude change ( a social psychological process). The nature of the interaction and communication can take the form of role playing, lecture, discussion, readings, etc. The type of role assumed by the leader attempting to facilitate attitude change emerges as an important variable to be considered as does the emotional and personality characteristics of those individuals whose attitudes the leader hopes to change. Masking the purpose of attitude change experiments appears as a necessary caution. The need for

environmental change to accompany attitude and behavioral change in order to insure their stability is felt to have special relevance for this investigation which is focusing on the institutional child. In the experimental portion of this study, attitude change was attempted through a social psychological process.

### CHAPTER III

#### DESIGN OF THE RESEARCH INSTRUMENT

Thurstone's operational definition of attitude provides a rationale for attitude measurement and was selected for use in this study. Attitude is defined by Thurstone as: "The degree of positive or negative affect associated with some psychological object." (Thurstone, 1946, p. 41). The degree of affect was assessed by an empirically developed attitude scale, with the psychological object under consideration being the institutional environment in which the children live -- The Angel Guardian Orphanage. The developed scale should be sufficiently sensitive to permit the rank ordering of the children relative to the favorableness of their attitudes towards the institutional environment, together with detecting attitude changes which may occur.

The initial step in constructing an attitude scale must begin by defining the area about which the individual's attitudes are to be assessed. In this investigation, the area is defined as the institutional environment within which the child lives at Angel Guardian Orphanage. After defining the area of investigation, the next procedure is to select those items or statements which will comprise the attitude scale. The criticism of the intuitive approach to item selection (Mc Nemar, 1946) was effectively overcome by the "clinical-empirical" approach to attitude scale construction utilized by Klett (1963), Pisani (1965), and

Webb and Kobler (1962). This approach permits the flexibility of open-end techniques while maintaining the precision afforded by scaling methods. The clinical-empirical approach will be followed in the development and construction of the Angel Guardian Rating Scale.

Accumulation and Selection of Statements for the Scale. Statements for the attitude scale were obtained from three different sources.

1. General Statements by the Children

The writer has served first as child therapist and then as staff consultant to Angel Guardian for the past six years. Statements of the children, obtained over that period of time during testing, interview, and therapy sessions were scrutinized and those reflecting attitudes and feelings towards the institutional environment were selected for consideration.

2. Sentence Completion Test

Klett (1963), Pisani (1965) and Webb (1959) used the sentence completion technique as a means of collecting statements in the development of their particular attitude scales. Twenty-six incomplete sentences relative to various aspects of the institution were composed and duplicated on three sheets of paper (see Appendix III). This form was titled "Angel Guardian Sentence Completion Form" and was administered to a random group of one hundred children, fifth grade through high school (the number selected from each grade being proportional to the total number of children within each grade) from Angel Guardian. Twenty six hundred separate responses were obtained through the use of this technique.

### 3. Essay

The last item on the Sentence Completion Form asked the child to write a short paragraph telling how he felt about Angel Guardian. Review of these paragraphs revealed a total of three hundred and eighty-seven statements which could be classified as either positive or negative.

The statements obtained from these sources were compiled and classified according to the various aspects of the institutional environment revealed by the data. A basic pool of preliminary statements was then formed by composing one hundred and fifty statements. Wherever possible, the exact words of the children were used in the construction of the statements. These statements were then edited in accord with the criteria suggested by Bird (1940), Likert (1932), Thurstone and Chave (1929), and Wang (1932), summarized by Edwards (1957), and utilized by Klett (1963), Pisani (1965), and Webb (1959). These criteria are listed below:

1. Avoid statements that refer to the past rather than to the present.
2. Avoid statements that are factual or capable of being interpreted as factual.
3. Avoid statements that may be interpreted in more than one way.
4. Avoid statements that are irrelevant to the psychological object under consideration.
5. Avoid statements that are likely to be endorsed by almost everyone or by almost no one.
6. Select statements that are believed to cover the entire range of the affective scale of interest.
7. Keep the language of the statements clear, simple, and direct.

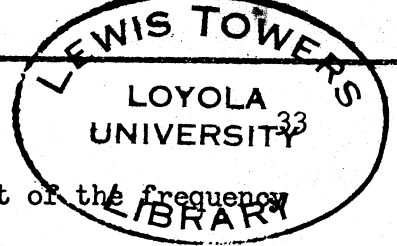
8. Statements should be short, rarely exceeding twenty words.
9. Each statement should contain only one complete thought.
10. Statements containing universals such as "all", "always", "none", and "never" often introduce ambiguity and should be avoided.
11. Words such as "only", "just", "merely", and others of a similar nature should be used with care and moderation in writing statements.
12. Whenever possible, statements should be in the form of a simple sentence rather than in the form of a compound or complex sentence.
13. Avoid the use of words that may not be understood by those who are to be given the completed scale.
14. Avoid the use of double negatives." (Edwards, 1957, p. 13-14)

Editing of the one hundred and fifty statements according to the above criteria reduced their number to one hundred and fifteen. These statements were then submitted to a group of four psychologists for judging. Two of the judges were Ph.D. level clinical psychologists with the other two judges nearing completion of their Ph.D.'s in clinical psychology. All of the judges had one or more years experience in child-caring institutions. They were asked to divide the statements into two classes (favorable and unfavorable) and to assess them for relevance and clarity. Specifically they were asked to read each statement and determine the following: 1). Is the statement relevant in that it is about some aspect of the child's institutional environment? 2). Is the language of the statement clear, simple, direct, and lacking in ambiguity? 3). Indicate with a plus (+) or minus (-) whether each statement is favorable or

unfavorable towards the institutional environment. This procedure further eliminated twenty statements. Five statements were rewritten and submitted to the judges for their evaluation according to the above criteria. A total of one hundred statements, fifty of which were favorable and fifty unfavorable, were thus obtained. The above procedure resulted in a one hundred item, preliminary attitude scale (See Appendix IV).

The preliminary attitude scale, consisting of an equal number of favorable and unfavorable statements, was administered to a random group of one hundred children at Angel Guardian. The children, fifth grade through high school, were selected through use of a table of random numbers with the number selected from each grade being proportional to the total number of children within each grade. The children were administered the Scale in a classroom setting, in groups of twenty-five.

The level of difficulty of the statements on the Scale was not known, although preliminary testing suggested that children with a 5.0 reading comprehension level or higher would have no difficulty reading and understanding the statements. The reading comprehension score (as measured by averaging the paragraph and word meaning scores on the Stanford Achievement Test) was obtained on each child to whom the Scale was administered. Those children with reading comprehension scores below 5.0 were given individual administrations of the Scale to insure their comprehension of the statements. Only two of the children experienced difficulty requiring reading and explanation. (These two children were later eliminated from the scale development as their scores did not fall



within either the top or bottom twenty five per cent of the frequency distribution.) The writer administered the Scale to each group of children and encouraged them to seek clarification of any term or statement they did not understand. The formal instructions given the children prior to their taking this preliminary scale are given in Appendix IV. They were asked to read each statement and then to show how much they agreed or disagreed with it by circling one of the five choices given under each statement. The five response categories were: Strongly agree, Agree, Undecided, Disagree, and Strongly Disagree.

The assumption was made that for the favorable statements, the "strongly agree" category would be the most favorable and for the unfavorable statements, the "strongly disagree" category would be the most favorable. Therefore, for the favorable statements the response categories received the following weights: "strongly agree" - 4; "agree" - 3; "undecided" - 2; "disagree" - 1; and "strongly disagree" - 0. For the unfavorable statements the scoring was reversed with the response categories receiving the following weights: "strongly agree" - 0; "agree" - 1; "undecided" - 2; "disagree" - 3; and "strongly disagree" - 4. The total score for each child was obtained by summing the assigned weight of the response that was circled in rating each statement.

When using the method of summated ratings, it becomes necessary to use some type of item analysis for the selection of the statements for the final scale. Murphy and Likert (1937) suggested using an item analysis technique whereby two criterion groups are selected utilizing a frequency distribution of the summated scores. A difference value for

each statement is then calculated using the magnitude of the difference between the means of the high and low scoring group. It is assumed, when using this method, that the standard deviation of the items is the same. This technique was followed by Klett (1963), Pisani (1965) and Webb (1959) and was utilized in this investigation.

The summated scores of the one hundred children was arranged in a frequency distribution with the top twenty-five per cent and the bottom twenty-five percent being selected in terms of their total score as representing the most favorable and least favorable groups. Using the method proposed by Edwards (1957), a  $t$  value was then calculated for each of the one hundred statements. The computational formula is as follows:

$$t = \frac{\bar{X}_h - \bar{X}_l}{\frac{\sqrt{\sum (x_h - \bar{X}_h)^2 + \sum (x_l - \bar{X}_l)^2}}{n(n-1)}}$$

Where  $\bar{X}_h$  = the mean score on a given statement for the high group

$\bar{X}_l$  = the mean score on a given statement for the low group

$$\sum (x_h - \bar{X}_h)^2 = x_h^2 - \frac{(X_h)^2}{n}$$

$$\text{and } \sum (x_l - \bar{X}_l)^2 = x_l^2 - \frac{(X_l)^2}{n}$$

The obtained  $t$  value for the one hundred statements ranged from .57 to 10.55 (See Appendix V). According to the criteria proposed by Edwards (1957), when there are twenty five or more subjects in each of the high

and low groups, any  $t$  value that is equal to, or greater than, 1.75 indicates that the average response of the high and low groups to a given statement differs significantly.

In order to obtain thirty statements which would most clearly elicit differences in attitude towards the institutional environment, those statements having the largest  $t$  value were selected for inclusion in the final scale. To minimize the possibility of subjects establishing a response set when taking the scale an equal number of favorable and unfavorable statements were chosen. Although the first thirty statements having the highest  $t$  value provided an equal number of favorable and unfavorable statements, certain important aspects relative to the institutional environment were not included within this number and necessitated the substitution of other statements with a somewhat lower  $t$  value. The substitution did not create any distortion in the Scale as all thirty statements chosen for the final Rating Scale had a  $t$  value greater than 4.05. These thirty statements were then arranged in a random order relative to the favorableness or unfavorableness of the statement. They were duplicated with fifteen statements to a page and titled "Angel Guardian Rating Scale". (See Appendix VI).

After obtaining the statements for their final scale, Klett (1963) and Webb (1959) scaled them according to the multiple category method (Rimoldi and Hormaeche, 1955) to determine if their statements constituted a scale. However, they found that when using their method of attitude scale construction, the top and bottom range of the subject's judgements

are normally distributed and therefore use of the multiple category method is not necessary. Pisani (1965) used the above method of attitude scale construction and therefore did not use the multiple category method for scaling his items. The writer followed this latter procedure.

## CHAPTER IV

### RELIABILITY AND VALIDITY STUDIES

The proposed goal in developing the Scale was to provide a reliable and valid instrument with which to assess the attitudes of the children at Angel Guardian towards their institutional environment. The evidence relevant to assessing the degree to which this instrument performs the function for which it was designed is reported in this chapter.

If the Rating Scale is to serve its purpose, those using it must be able to assume that children obtaining similar scores on the Scale have similar attitudes towards the psychological object under consideration -- the institutional environment. The assumption was made in constructing the Rating Scale that the items came from a relatively homogeneous universe. Therefore, it is important to estimate the reliability of the Scale through determining the coefficient of internal consistency. A high coefficient of internal consistency indicates that the statements are interdependent and therefore homogeneous, permitting the assumption that the Scale is unidimensional and reliable.

The Angel Guardian Rating Scale was administered to fifty children, selected at random from grades five through high school at Angel Guardian. The number of children selected from each class was in proportion to the total number of children within each class. The items for each Scale

were divided in half (odd versus even numbered statements) and each half was scored according to the summated ratings method described previously. The two halves were then correlated by the Pearson product-moment method (Mc Nemar, 1955, p. 119), with a coefficient of .85 ( $p < .001$ ) being obtained. The Spearman-Brown formula (Garrett, 1953 p. 341) for estimating reliability from comparable halves of a test was applied to the result, raising the correlation to .92 ( $p < .001$ ). This obtained value compares favorably with other split-half reliabilities reported by Edwards (1957). The obtained coefficient of internal consistency permits the assumption that the Scale is unidimensional and reliable. Evidence of validity was determined in two ways: 1). Correlation between the summated score obtained on the Scale and the score obtained on the Essay; 2). Correlation between the summated score obtained on the Scale and the summated score obtained on the Staff Rating Scale for each child. It was assumed that high correlations between each of these pairs of measures would indicate that the Scale assessed the variable it was designed to measure -- attitudes toward the institutional environment.

Each child who participated in the reliability experiment was given a Scale which contained a separate third sheet on which it was requested that they write a short paragraph, stating in their own words, how they felt about the "Home". The essays were submitted to two judges (Ph.D. level clinical psychologists) who were instructed to proceed in the following manner: "Score each sentence within the essay as being either a positive (+) or negative (-) statement. Those sentences which cannot be

scored either positive or negative should be crossed out. After scoring each of the sentences, algebraically total the sentence scores, designating the essay as being either positive or negative according to the summated sentence scores." None of the essays contained only neutral statements or an even number of positive and negative statements. One hundred per cent agreement between the judges was obtained.

The validity of the Rating Scale was estimated by correlating the summated scores of the fifty records obtained in the reliability study with the assigned score given by the two judges to the fifty essay statements obtained from the same children. The biserial correlation suggested by McNemar (1955, p. 193) was used to estimate the validity coefficient. The following formula was used:

$$r_b = \frac{(M_2 - M_y) p_2}{\sigma_y}$$

where:  $p_2$  = proportion of cases in the second category

$M_2$  = mean of Y's for cases in the second category

$M_y$  = mean of all the Y scores

$\sigma_y$  = SD of all the Y scores

$z$  = ordinate for the unit normal curve at the point where  $p_2$  cases are cut off.

McNemar (1955) suggests that the biserial correlation be used when one variable is scored in a graduated fashion (as the Angel Guardian Rating Scale is) and the other variable is in the form of a dichotomy (descriptive of the +, - scoring of the Essay). It is assumed that a continuous variable underlies the dichotomy (a slightly more positive than negative essay received a positive score, just as did an extremely positive score

and vice versa). The Biserial correlation therefore provides an estimate of what the product moment correlation would be if the dichotomous variable were measured in such a way as to produce a normal distribution.

A biserial coefficient,  $r_b$  of .94 was obtained, indicating a high concurrent validity between the two independent measures and provides supporting evidence that the Rating Scale is a valid measure of the child's attitudes toward the institutional environment.

The second measure of concurrent validity was obtained by determining the correlation between the summated score obtained by the individual on the Scale and summated score obtained on the Angel Guardian Rating Scale (Appendix VIII) for that individual.

The Staff Rating Scale was constructed for the purpose of providing an instrument for staff members which would enable them to indicate their estimation of an individual's attitudes. The Staff Rating Scale was constructed by selecting ten aspects of the institutional environment which had successfully differentiated between children in the development of the Angel Guardian Rating Scale. A statement was formulated for each aspect with the rater being asked to rate each child's attitude toward that particular aspect according to one of five possible response categories -- Strongly Negative, Negative, Neutral, Positive, and Strongly Positive. Score values (0 through 5) were assigned to the response categories. The Staff Rating Scale was given to the four individuals who would have had the best opportunity to become aware of those children's attitudes who had been administered the Rating Scale for the reliability study. The Staff Rating Scale was given to the

priest, cottage mother, and two of the teachers (individual Scales given to each) with each being asked to rate particular children. It was thus possible to obtain four separate Staff Rating Scales on each child who had participated in the reliability study. Summation was made over the four Staff Rating Scales for each of the children and was correlated with that individual's summated score obtained on the Angel Guardian Rating Scale. The Pearson product-moment correlation (Mc Nemar, 1955, p. 119) was used with a validity coefficient of .47 ( $p = < .01$ ) obtained. This compares favorably with other reported correlation coefficients between independent measures (Mc Nemar, 1955).

On the basis of the obtained reliability and validity coefficients, the investigator concluded that the Angel Guardian Rating Scale is a reliable and valid instrument with which to assess the children's attitude at Angel Guardian towards their institutional environment.

## CHAPTER V

### EXPERIMENTAL APPLICATION OF THE RESEARCH INSTRUMENT

As stated in Chapter I, one of the goals of this investigation is to provide experimental evidence to the institutional staff that positive changes can be brought about in the children's attitudes through the use of specific forms of social psychological processes which can be readily incorporated into the institutional program.

Although it was anticipated that many of the subjects' attitudes would reflect reality situations within the institutional environment, it was assumed that attitudes towards others and towards an environment in general are greatly influenced by the individual's own self-concept. The experimental variable used in this experiment is a direct attempt to aid the institutionalized child in making a more realistic assessment of himself and his environment and to aid him in forming a more positive self-concept. A positive change in attitude, as reflected by pretest-posttest score comparisons between the experimental and control groups on the Angel Guardian Rating Scale will be assumed to indicate a more positive assessment of the subjects' general environment as a result of the intervening variable and a subsequent altered self-concept.

It was hypothesized, therefore, that the change in the pretest-posttest scores for the Experimental Group are significantly higher than those obtained by Control Groups I and II, indicating that the social psychological process introduced as the intervening variable

for the experimental group facilitated positive attitude change.

### Procedure

The Angel Guardian Rating Scale was administered to all of the high school students within the institution where the Rating Scale was developed. Seventy-two of those students were chosen by use of a stratified random selection. This permitted the selection of an equal number of subjects of each sex and an equal number of subjects from each of the high school grades. It was felt essential to have an equal number of each sex within each of the groups as observation of the scores on previous administrations of the Rating Scale had revealed a marked skewing in the direction of the girls having a generally more negative attitude towards the institutional environment than did the boys.

The seventy-two students were then matched in triads according to pretest summated scores on the Rating Scale and assigned randomly to one of the three groups. Equal representation by sex, grade level, and pretest score was maintained within each of the groups.

### Experimental Group

The experimental group was composed of twenty-four subjects. It included twelve girls and twelve boys (three boys and three girls from each of the four high school grades). This group met with the investigator for three, one hour sessions weekly for a period of four weeks. The intervening variable, in the form of a social psychological experience, was presented during this time.

### Control Group I

This group was composed of twenty-four subjects. It included twelve

girls and twelve boys (three boys and three girls from each of the four high school grades). This group met with the investigator for three, one hour sessions weekly for a period of four weeks. The activity during the hour was one of recreation, consisting of table games, playing records, table tennis, or simply visiting with each other. The activity of the subjects was undirected in that they were permitted to engage in any activity of their choice within the recreation room. On occasion, certain of the subjects would bring school materials and study for a portion of the hour. The investigator was both a supervisor and participant with the subjects during this hour.

It was felt necessary to have this group to control for the influence of the social interaction between the subjects, the interaction between the subjects and the investigator, and the physical presence of the investigator.

#### Control Group II

This group was composed of twenty-four subjects. It included twelve girls and twelve boys (three boys and three girls from each of the four high school grades). This group was not informed of their participation in the investigation and no one else was aware of this group's participation, other than the investigator. This group maintained their regular institutional routine.

Control Group II was felt necessary in order to control for the effects of constant ongoing constructive change within the institutional environment. Such change could also result in positive attitude change

in the children and as such had to be controlled for appropriate assessment of the intervening variable. The presence of Control Group II controlled for the influence of this variable. Comparison between Control Groups I and II also provided assessment of the variables of social interaction and investigator influence.

The Experimental Group and Control Group I met on the same evenings with the investigator during a time that would normally have been their study period. Control Group I met with the investigator at 6:00 P.M. in a recreation room and the Experimental Group met with the investigator at 7:00 P.M., of the same evening, in a classroom. This schedule was chosen as this was the only time the students were available and so as to permit each group to continue to have the advantage of a portion of their regular study period. Their normal study period was from 6:30 to 8:00 P.M.. Both groups were informed that Angel Guardian, in its continuing program of change, was attempting to determine whether inclusion of a course in psychology within the school program or the inclusion of a recreation period within the usual daily program would be perceived as desirable by the students. They were informed of the frequency and length of time that they would meet and were told that upon completion of the program, they would be asked to write an evaluative statement as to whether or not they felt it would be beneficial to incorporate such a program into the institutional routine.

Following termination, of the experiment, the Rating Scale was readministered to all of the high school students. The Scales of the seventy-two subjects who had participated in the experiment were then

scored, summated and a pretest-posttest gain score computed. Statistical comparison of the three groups was then made through analysis of variance and t tests using the methods proposed by Campbell (1959) and Scott and Wertheimer (1962).

#### Clarification of the Intervening Variable

The intervening variable, described as a social psychological process, was as follows: A series of twelve didactic lectures were presented to the experimental subjects as a group. The lectures lasted thirty minutes and occurred during the first thirty minutes of the experimental hour. The lectures were all given by the investigator and were based on material presented in a text for high school students by Engle (1964). Specifically, chapters seven, twelve, and thirteen were covered with two sessions being devoted to chapter seven and five sessions each to chapters twelve and thirteen. Chapter titles and subtitles, descriptive of content, are as follows:

##### Chapter 7 -- Popularity

- 1). Popularity
- 2). Helping others to like us
- 3). Leadership

##### Chapter 12 -- Maintaining Mental Health

- 1). Frustration and conflict
- 2). Desirable ways of responding to frustration and conflict
- 3). Controlling emotional reactions to frustration and conflict
- 4). Other ways of responding to frustration and conflict

##### Chapter 13 -- Some emotional problems of high school students

- 1). Feelings of inferiority
- 2). Thrills and thrill-seeking
- 3). Daydreaming
- 4). Dating
- 5). Assuming the roles of men and women

- 6). Family conflicts
- 7). Emancipation

Following the lecture the remainder of the hour was used for group discussion and questions. During the discussion period, the subjects were encouraged to bring up any matter relevant to the lecture material and/or themselves.

In discussing the problem situations brought up by the subjects, the investigator maintained the focus upon the individual experiencing the difficulty, rather than the particular stimulus which precipitated the particular response. The purpose in maintaining this particular focus was to make the subject increasingly aware of his own contributions to every situation in which he is involved and to aid him through a better self-awareness to gain a better perception of those factors contributing to the difficulty. In essence, the investigator followed the "Rational-Emotive" approach presented by Ellis (1962).

## CHAPTER VI

### ANALYSIS OF RESULTS

One of the goals of this investigation was to provide experimental evidence to the staff at Angel Guardian that positive attitude changes could be brought about in the children there through the use of a social psychological process which could be readily incorporated into their program.

The effectiveness of the social psychological process was assessed by comparing the pretest-posttest scores on the Angel Guardian Rating Scale for the seventy-two subjects who comprised one experimental and two control groups. It was hypothesized that the experimental variable would facilitate attitude change and result in a significant change in attitude of the experimental group when compared with control groups I and II.

An analysis of variance of repeated measures for the pretest-posttest scores supported this hypothesis. As shown in Table 1, there was no significant difference between groups. However, there was a significant difference between the two measures ( $p < .05$ ) and between measures and groups ( $p < .01$ ). The difference between the two measures indicates a change in attitude (as measured by the pretest-posttest scores) which is attributable to the experimental variable. Inspection of Figure 1 reveals that the attitude change occurred primarily in the experimental group. The significant interaction found between measures and groups indicates that change over the two measures depended upon which group was being

TABLE 1

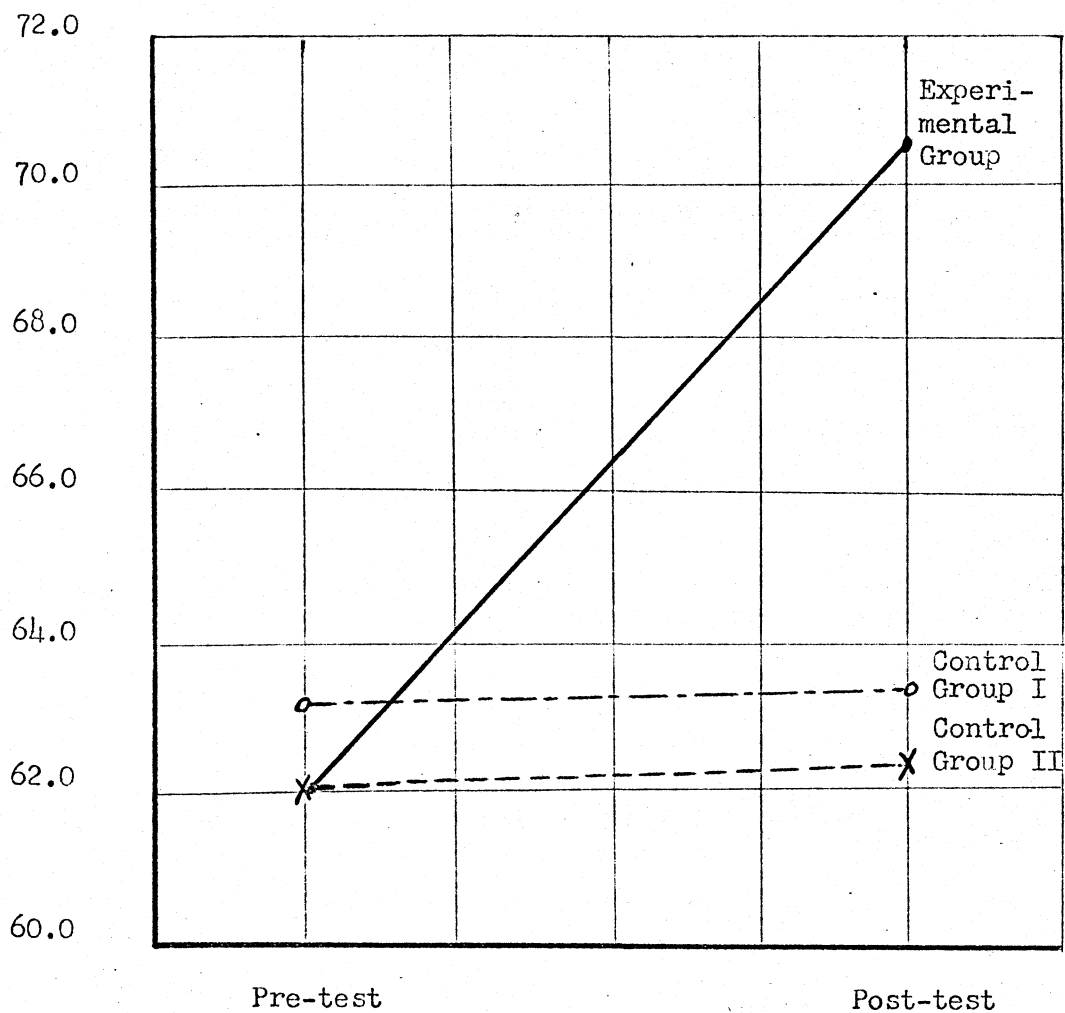
## ANALYSIS OF VARIANCE FOR REPEATED MEASURES:

## PRE-TEST AND POST-TEST OF THE EXPERIMENTAL AND CONTROL GROUPS

Source	SS	df	MS	F
Between groups (A)	417.34	2	208.67	.30
Between subjects same group (B)	48176.66	69	698.21	
Between measures (C)	315.07	1	315.07	5.88*
C X A	537.11	2	268.55	5.01**
B X C	3698.32	69	53.60	

\*  $p = < .05$ \*\* $p = < .01$

FIGURE 1. PROFILES OF SIMPLE EFFECTS FOR MEASURES



measured. Inspection of the means (Table 2) reveals that there was essentially no change between the pretest-posttest measures for control groups I and II, with the experimental group showing a comparatively large change. The absence of a significant difference between the groups is accounted for in terms of the differences of the group means and the variance of the individual scores within each group. Inspection of the data in Appendix V reveals that the largest difference between any two group means was 8.42 scale points with individual scores within a group varying as much as 74.00 scale points.

A further comparison of the groups was made through use of the pretest-posttest change scores of each subject within each of the groups. The scores for each subject were compared with the scores of his matched partner in the other groups with an algebraic difference between their changes being calculated. The statistical significance of the difference in change scores between the three groups was determined by the formula proposed by Scott and Wertheimer (1962, p. 263):

$$S_{MDch} = \frac{n \sum D_{ch}^2 - (\sum D_{ch})^2}{n^2(n-1)}$$

and:

$$t = \frac{MD_{ch}}{S_{MDch}}$$

where:  $D_{ch}$  = the difference between the changes from pretest to posttest of any particular matched pair.

$n$  = the number of pairs of matched subjects.

Using the above formula, the matched subjects of the Experimental

TABLE 2  
MEANS AND STANDARD DEVIATIONS OF THE  
PRE-TEST AND POST-TEST MEASURES

	<u>Pre-test</u>		<u>Post-test</u>	
	M	SD	M	SD
Experimental Group	62.00	19.16	70.42	17.02
Control Group I	63.17	19.61	63.21	20.54
Control Group II	62.00	23.25	62.42	18.00

Group and Control Group I were compared. A statistically significant positive increase in attitude toward the institutional environment was made by those subjects in the experimental condition as opposed to those subjects in Control Group I ( $t = 2.61$ ;  $p < .01$ ). Comparison of the Experimental Group and Control Group II yielded a  $t$  of 3.73 ( $p < .001$ ) reflecting the positive attitude change in the experimental group. No significant difference was found between Control Groups I and II. (Appendix IX).

Both the analysis of variance and the  $t$  tests supported the hypothesis of attitude change as a result of the social psychological process used as the experimental variable.

## CHAPTER VII

### SUMMARY AND CONCLUSIONS

The purpose of this study was to develop a reliable and valid attitude scale with which to assess children's attitudes toward their institutional environment. Through the use of such a scale, it was felt that the institution would have a measure of the effectiveness of its program; have an aid to help them determine those children in need of therapeutic measures; and through an experimental application of the scale provide evidence to the institutional staff that a positive change in their children's attitudes could be brought about through a social psychological process which could be readily incorporated into their program.

The review of the literature focused on three areas: maternal separation and institutionalization of the child; attitudes and attitude scales; and attitude change through social psychological processes.

The negative consequences of early separation have been well documented through the observations of many writers. The early studies in this area focused on the various physiological, intellectual, social and emotional deficits found in children who were subjected to maternal separation and institutionalization from birth to two or three years of age. Comprehensive reviews of these studies were made by Bakwin (1949), Bowlby (1951), and Stone (1954). The primary limitation on these early findings was that they were based on rather casual observations. Although subsequent studies, using a more quantitative approach led to some

modification of the earlier findings, they continued to support the adverse consequences of maternal deprivation and institutionalization. Comprehensive over-views of all research up to the time of their reviews were made by Witmer, et al. (1962) and Yarrow (1964). Many of the later studies suggest that factors other than separation and institutionalization may contribute to the difficulties experienced by these children. However, definitive conclusions cannot be drawn because of the lack of rigor of experimental design.

Although definitions of attitude have generally placed a rather close correspondence between attitude and behavior, investigations concerning the institutionalized child's attitudes are lacking. The writer found no studies which attempted to systematically assess the institutionalized child's perception or evaluation of his institutional environment.

Some of the early definitions of attitude were reviewed with Thurstone's operational definition of attitude being selected for this investigation as it was felt to provide a rationale for attitude measurement. The development of the Thurstone and Likert type attitude scales was presented together with the criticisms of their methods. Mc Nemar (1946) suggests that the limitations of both scales can be overcome with a combination of their techniques with this being demonstrated by the studies of Klett (1963), Pisani (1964) and Webb and Kobler (1962). The current study followed the design presented by these writers.

Many studies have demonstrated that attitude change can be brought about through the use of a social psychological process involving interaction and communication within groups. In general, these studies

have focused on some particular aspect within the situation which has facilitated change. Studies concerning the subjects' and leaders' roles; the various forms and techniques of communication; and the emotional and personality characteristics influencing attitude change were considered. A combination of the lecture and discussion methods was used in the experimental portion of this study in an attempt to change the child's attitudes towards his institutional environment.

A combination of the Thurstone and Likert methods of scale construction utilizing the clinical-empirical method of Webb and Kobler (1962) was used to construct the attitude scale. A general pool of statements concerning various aspects of the institutional environment were obtained from one hundred children within the institution, grades five through twelve. Relevant statements were selected, edited, judged, and formed into a preliminary attitude scale of one hundred statements with equal representation of favorable and unfavorable items.

The preliminary attitude scale was administered to a random group of one hundred children within the institution, grades five through twelve, with the number of children within each group being proportional to the total number within that grade. The scales were scored according to the method of summated ratings and submitted to item analysis in which a difference value was calculated for each statement. All but nine of the one hundred statements were found to be capable of eliciting clear differences in attitude. Thirty of those statements having the greatest difference values, fifteen of which were favorable and fifteen unfavorable, were selected for the final attitude scale which was titled "The Angel

Guardian Rating Scale."

The reliability of the Scale was estimated through obtaining a coefficient of internal consistency on split-halves of the Scale using the Pearson product-moment correlation. A reliability coefficient of .92 ( $p < .001$ ) was obtained through correlating the scores of fifty children on the even numbered statements with their scores on the odd numbered statements and applying the appropriate Spearman-Brown correlation formula.

Two measures of validity were obtained on the Scale. A correlation was made between the summated Scale scores, obtained from fifty children and the assigned scores given them on the essay statements by two judges. A biserial coefficient of .94 ( $p < .01$ ) was obtained. The second measure of validity was obtained through correlating the summated Scale scores, obtained from fifty children, and a second summated score obtained on the Staff Rating Scales for each of the children. The Pearson product-moment correlation was used with a coefficient of .47 ( $p < .01$ ) being obtained. The obtained reliability and validity coefficients indicate that the Scale is a reliable and valid instrument.

The Angel Guardian Rating Scale was then used to assess, through experimentation, if positive changes could be brought about in the children's attitudes towards the institutional environment through the use of an intervening variable called a social psychological process. A total of seventy-two children were randomly selected from the high school with there being equal representation according to sex and grade level. These subjects were matched in triads according to pre-test scores on the Scale and randomly assigned to one of the three experimental conditions:

1). the Experimental Condition in which the intervening variable was presented by the investigator; 2). Control Condition I in which control was made for social interaction and investigator influence; 3). Control Condition II was used to control for the ongoing changing conditions within the institution. The Experimental and Control Group I subjects met as separate groups with the investigator for one hour, three evenings a week, for four weeks. Control Group II was not aware of their participation and continued their regular institutional routine. The Scale was re-administered at the conclusion of the experiment with pretest-posttest scores being computed for every subject.

Analysis of variance of repeated measures and t tests were used to evaluate the data. Both statistical procedures supported the hypothesis that the social psychological process, presented as the experimental variable, would facilitate attitude change. The analysis of variance was significant beyond the .05 level for between measures and beyond the .01 level for between measures and groups. Inspection of the profiles for simple effects, together with the means and standard deviations for the pre- and post-test measures revealed that attitude change was essentially limited to the experimental group.

The t tests were made following the formula proposed by Scott and Wertheimer (1962). A positive change in attitude, significant at the .01 level of confidence, was found for the Experimental Group when compared with Control Group I. A like comparison with Control Group II showed a positive increase in attitude for the Experimental Group, significant at the .001 level of confidence. No significant difference

was found in the comparison between Control Groups I and II.

The investigator was able to conclude that the goals of the research had been realized. A reliable and valid instrument was developed which would permit the institution to assess the children's attitudes toward their institutional environment and thus provide the staff with a measure of the effectiveness of their program. Very low scores on the Scale would suggest that therapeutic measures be taken in an attempt to aid the child in making a better adjustment. Results of the experiment clearly indicated that the child's attitudes towards the institutional environment can be altered in a positive direction through the use of a social psychological process which can be incorporated into their program.

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# APPENDIX I

## AGE AT TIME OF FIRST SEPARATION FROM PARENTS

<u>Age in Months</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>
0 - 11	2		3
12 - 23	2		4
24 - 35	10		7
36 - 47	11		7
48 - 59	6		9
60 - 71	13		8
72 - 83	14		3
84 - 95	19		13
96 - 107	4		11
108 - 119	4		9
120 - 131	14		15
132 - 143	6		11
144 - 155	4		1
156 - 167	3		8
168 - 179			<u>1</u>
Total:	<u>112</u>		<u>110</u>

## AGE AT TIME OF FIRST INSTITUTIONALIZATION

<u>Age in Years</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>
0 - 1	3		5
2 - 3	12		7
4 - 5	20		18
6 - 7	30		15
8 - 9	16		18
10 - 11	22		30
12 - 13	9		11
14 - 15			<u>6</u>
Total:	<u>112</u>		<u>110</u>

## APPENDIX I (Continued)

## CURRENT GRADE PLACEMENT

<u>Grade</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>	<u>Percentage</u>
5	10		10	9
6	10		10	9
7	12		14	12
8	12		9	9
9	21		21	19
10	19		17	16
11	13		15	13
12	<u>15</u>		<u>14</u>	<u>13</u>
	Total: 112		110	100

## APPENDIX I (Continued)

## LENGTH OF TIME WITHIN THE INSTITUTION

<u>Time in Years</u>	<u>Number</u>	
	<u>Boys</u>	<u>Girls</u>
0 - 1	8	12
2 - 3	18	25
4 - 5	29	33
6 - 7	25	17
8 - 9	14	10
10 - 11	13	6
12 - 13	4	6
14 - 15		2
Total:	112	110

## REASON FOR INSTITUTIONALIZATION

<u>Reason</u>	<u>Number</u>		<u>Percentage</u>
	<u>Boys</u>	<u>Girls</u>	
Parent deceased	26	23	22
Parental inadequacy (neglect, abuse, incest, marital difficulties)	27	29	25
Parent committed to institution	5	15	9
Desertion	31	26	26
Divorce	8	5	6
Alcoholism	15	12	12
Total:	112	110	100

## APPENDIX I (Continued)

## NUMBER OF SIBLINGS (NOT INCLUDING SUBJECT)

<u>Number</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>	<u>Percentage</u>
None	8		7	7
One	14		20	15
Two	24		16	18
Three	25		23	22
Four	19		15	15
Five	9		11	9
Six	7		6	6
Seven	3		7	4
Eight	2		2	2
Nine	<u>1</u>		<u>3</u>	<u>2</u>
Total:	112		110	100

## ORDINAL POSITION IN FAMILY

<u>Position</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>	<u>Percentage</u>
Only Child	8		7	7
Youngest Child	35		27	28
Middle Child	48		46	42
Oldest Child	<u>21</u>		<u>30</u>	<u>23</u>
Total:	112		110	100

## APPENDIX I (Continued)

## PRIMARY OCCUPATION OF PARENTS

<u>Occupation</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>	<u>Percentage</u>
Professional	3		2	2
Managerial	7		1	4
Clerical and kindred sales personnel				
Skilled	21		22	19
Unskilled	80		83	74
Undetermined	<u>1</u>		<u>2</u>	<u>1</u>
Total:	112		110	100

## RACE

<u>Race</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>
White	104		99
Negro	5		3
American Indian	1		6
Oriental	<u>2</u>		<u>2</u>
Total:	112		110

## APPENDIX I (Continued)

## NATIONALITY

<u>Nationality</u>	<u>Boys</u>	<u>Number</u>	<u>Girls</u>
Polish	22		18
Irish	16		14
German	13		13
Puerto Rican	10		13
Mexican	7		12
Italian	9		8
American Negro	5		3
American Indian	1		6
Lithuanian	5		
French	7		
Chinese, Hawaiian	2		2
Austrian			5
English			8
Spanish	3		
Scotch	3		
Jewish	1		
Swedish, Danish, Rumanian, Croation,			
Slovakian	8		8
Total:	112		110

## APPENDIX II

### READING COMPREHENSION SCORES INITIAL SCALE DEVELOPMENT

<u>Grade level</u>	<u>Number</u>	<u>Average level</u>
5	14	4.9 <sup>a</sup>
6	14	4.9 <sup>b</sup>
7	19	5.3
8	15	7.1
9	14	12.1
10	10	11.7
11	6	12.6
12	8	12.3

<sup>a</sup> Two under 5.0

<sup>b</sup> Three under 5.0

### READING COMPREHENSION SCORES RELIABILITY AND VALIDITY STUDY

<u>Grade level</u>	<u>Number</u>	<u>Average level</u>
5	6	4.7 <sup>a</sup>
6	6	4.8 <sup>a</sup>
7	7	6.3
8	6	7.3
9	10	10.4
10	8	11.6
11	4	12.7
12	3	12.8

<sup>a</sup> Three under 5.0

## APPENDIX II (Continued)

READING COMPREHENSION SCORES  
EXPERIMENTAL STUDY

## EXPERIMENTAL GROUP

<u>Grade level</u>	<u>Number</u>	<u>Average level</u>
9	6	12.7
10	6	10.6
11	6	12.4
12	6	11.8

## CONTROL GROUP # 1

<u>Grade level</u>	<u>Number</u>	<u>Average level</u>
9	6	11.2
10	6	12.1
11	6	12.8
12	6	13.0

## CONTROL GROUP # 2

<u>Grade level</u>	<u>Number</u>	<u>Average level</u>
9	6	9.7
10	6	11.8
11	6	12.3
12	6	13.0

### APPENDIX III

Present Grade Placement \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_

#### ANGEL GUARDIAN SENTENCE COMPLETION FORM

An attempt is being made to find out how you honestly feel about Angel Guardian. Please complete the following sentences stating how you feel. Be sure to complete every sentence. You need not sign your name.

1. Living at Angel Guardian makes me \_\_\_\_\_  
\_\_\_\_\_
2. The Priest in charge of my group \_\_\_\_\_  
\_\_\_\_\_
3. The best thing about Angel Guardian is \_\_\_\_\_  
\_\_\_\_\_
4. Attending school at Angel Guardian is \_\_\_\_\_  
\_\_\_\_\_
5. My Cottage Nun \_\_\_\_\_  
\_\_\_\_\_
6. The nurses at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
7. The meals we get here are \_\_\_\_\_  
\_\_\_\_\_
8. The employees at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_

9. The Angel Guardian recreation program \_\_\_\_\_  
\_\_\_\_\_
10. My Caseworker \_\_\_\_\_  
\_\_\_\_\_
11. Going to the infirmary is \_\_\_\_\_  
\_\_\_\_\_
12. The Priests at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
13. Boys and girls at Angel Guardian are \_\_\_\_\_  
\_\_\_\_\_
14. The worst thing about Angel Guardian is \_\_\_\_\_  
\_\_\_\_\_
15. My classroom teacher \_\_\_\_\_  
\_\_\_\_\_
16. The cottage where I live is \_\_\_\_\_  
\_\_\_\_\_
17. I think that Religion at Angel Guardian is \_\_\_\_\_  
\_\_\_\_\_
18. Having to leave Angel Guardian would \_\_\_\_\_  
\_\_\_\_\_
19. The Psychologist at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
20. The work assigned to me here \_\_\_\_\_  
\_\_\_\_\_

21. The freedom permitted us at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
22. The Nuns at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
23. If I were in charge at Angel Guardian, I would \_\_\_\_\_  
\_\_\_\_\_
24. The Doctors at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_
25. The rules and regulations here \_\_\_\_\_  
\_\_\_\_\_
26. Having to attend Mass at Angel Guardian \_\_\_\_\_  
\_\_\_\_\_

Please write a short paragraph telling, in your own words, how you feel about Angel Guardian.

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## APPENDIX IV

## ANGEL GUARDIAN RATING SCALE

DIRECTIONS: The Angel Guardian Rating Scale was prepared from statements of the children at the Home. We would like to know if you feel the same way about the Home as these children do. Read each statement carefully and then show how much you agree or disagree with it by circling one of the five choices under each statement.

1. Living at the Home makes me feel like someone cares for me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
2. The grown ups at the Home are always bossing you around.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
3. The rules at the Home are too strict.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
4. It is easy to get along with the children at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
5. Religion at the Home does not teach you how to be a better person.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
6. The best thing about the Home is the food.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
7. The work that I have to do at the Home makes me feel like a slave.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
8. I am frightened when I have to go to the Infirmary at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

9. I do not like my caseworker.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
10. We should not be forced to take part in sports at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
11. My cottage at the Home is very nice.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
12. The Nuns at the Home slap the kids around too much.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
13. The grown ups at the Home are more interested in the children than in themselves.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
14. I like going to school at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
15. It is easy to obey the rules at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
16. It seems that the grown ups at the Home do not want you to think for yourself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
17. No one at the Home helps you with your problems.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
18. Being at the Home helps you learn how to do things for yourself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
19. The Priests at the Home do their best to make the children happy.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

20. It seems like I can never do anything right at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
21. The Home is a good place to live.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
22. The children at the Home learn how to help each other.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
23. We have to go to Mass too often at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
24. The food that we get at the Home tastes good.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
25. The Psychologist at the Home does not have time to talk to the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
26. The children should not have to work so hard in cottage.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
27. The grown ups at the Home take good care of me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
28. The Home teaches me how to be a good Catholic.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
29. Most of the rules at the Home are necessary.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
30. My cottage Nun tries to be a good mother to me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
31. Brothers and sisters need to be together more often at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

32. The school at the Home gives us a good education.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
33. We have to do the work at the Home because there is no one else to do it.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
34. The nurses do not want you to come to the Infirmary at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
35. The recreation program at the Home helps me to stay healthy.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
36. The employees at the Home have a lot of patience with the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
37. No one would stay at the Home if they had someplace else to go.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
38. The Nuns at the Home seem to enjoy making the children unhappy.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
39. The children at the Home are friendly.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
40. It is hard to figure out what the rules are at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
41. Most of the Priests and Nuns at the Home will listen to your problems.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
42. I think that going to Mass at the Home helps me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

43. The boys and girls at the Home should be allowed to talk to each other more.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
44. The doctors at the Home are wonderful.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
45. I like the work that I do at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
46. Our Priest at the Home does not seem to care about the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
47. Someone always seems to be watching you at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
48. I think that everything at the Home is fine.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
49. The boys and girls at the Home should be permitted to date.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
50. The Priests and Nuns at the Home will always be my friends.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
51. My caseworker is very understanding.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
52. We should have more recreation at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
53. Living at the Home is like being in a prison.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

54. It is hard to figure out what the rules of the Home are.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
55. We do not get enough food at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
56. The nurses at the Home are very nice to the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
57. The employees at the Home are nice people to work with.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
58. It is hard to trust the grown ups at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
59. My cottage Nun does not seem to like me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
60. I am glad that I came to the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
61. The Psychologist tries to help everyone at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
62. I wish that I could live at a different cottage at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
63. The rules at the Home help me to be a better person.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
64. The boys and girls at the Home should have more parties together.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
65. We do not have enough time to study at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

66. Most of the Nuns at the Home are good to the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
67. You learn how to get along with other kids at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
68. The grown ups at the Home sometimes forget what children are like.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
69. Everyone at the Home works hard to make it a nice place for the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
70. The children at the Home are not allowed to decide things for themselves.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
71. The volunteers at the Home make me feel good.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
72. I feel like running away from the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
73. The children at the Home are happy most of the time.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
74. The worst thing about the Home is the Nuns hitting us.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
75. Going to the Infirmary at the Home helps me to keep well.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
76. My caseworker does not care about the children at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

77. The grown ups at the Home act as if they do not want the children to have fun.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
78. My teacher at the Home is a good teacher.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
79. The Priest in charge of my group seems interested in me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
80. The children at the Home do not have enough free time.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
81. The Home is the best place to be if you can't be with your family.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
82. The meals at the Home are terrible.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
83. The Doctors at the Home do not understand the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
84. The work that I have to do at the Home does not teach me anything.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
85. The bigger kids pick on the smaller kids at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
86. The teachers at the Home help you when you need it.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
87. The grown ups at the Home are not as nice as they act.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

88. My cottage Nun never lets me do anything that I want.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
89. The Home is the best place for me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
90. The employees at the Home work hard to make it a nice place for the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
91. Some of the Nuns at the Home should be sent somewhere else.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
92. There is too much religion at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
93. The grown ups at the Home help you learn how to live outside.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
94. My cottage is a wonderful place to live.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
95. The school work at the Home is easy.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
96. The Priests at the Home spend most of their time with the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
97. Telling the Priests and Nuns how you feel gets you into trouble at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
98. Time goes by quickly at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

99. The Nurses at the Home do their best to help the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
100. Most of the rules at the Home should be changed.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

# APPENDIX V

## STATISTICAL DATA

### MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

#### t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
1+	3.160	0.987	1.880	1.166	4.190
2-	2.720	1.021	1.120	0.881	5.930
3-	2.720	1.275	1.000	1.225	4.864
4+	2.760	1.165	2.040	1.207	2.146
5-	3.000	0.913	2.160	1.519	2.370
6+	1.200	1.225	0.520	1.005	2.146
7-	3.120	0.971	1.040	1.274	6.492
8-	2.720	1.173	1.760	1.422	2.603
9-	2.280	0.936	2.040	1.338	0.735
10-	1.840	1.179	0.880	0.927	3.200
11+	3.640	0.569	1.520	1.327	7.344
12-	2.640	1.114	0.960	1.207	5.115
13+	2.800	1.258	1.240	1.234	4.425
14+	2.880	1.269	1.520	1.447	3.534
15+	2.920	1.077	0.920	1.222	6.139
16-	2.800	0.866	1.040	1.338	5.522
17-	3.360	0.907	1.680	1.180	5.642
18+	3.440	0.768	2.000	1.354	4.625
19+	3.640	0.569	2.880	1.201	2.859
20-	3.160	0.850	1.440	1.417	5.205
21+	3.600	0.500	1.560	1.294	7.355
22+	3.000	0.913	1.640	1.319	4.239
23-	2.920	1.152	1.320	1.435	4.347
24+	2.200	1.225	0.600	1.000	5.060
25-	2.200	1.155	1.320	1.030	2.844

"-" indicates a negatively stated item.

"+" indicates a positively stated item.

## APPENDIX V (Continued)

## MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

## t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
26-	2.080	1.320	1.440	1.227	1.775
27+	3.480	0.510	1.440	1.193	7.862
28+	3.600	0.500	2.280	1.208	5.047
29+	3.200	0.866	1.720	1.429	4.428
30+	3.440	0.821	1.560	1.557	5.342
31-	0.640	1.036	0.480	0.963	0.566
32+	3.440	0.870	2.200	1.258	4.053
33-	1.800	1.354	0.920	1.256	2.383
34-	3.120	0.781	1.520	1.358	5.108
35+	3.360	0.700	1.880	1.201	5.322
36+	2.880	1.054	1.960	1.369	2.663
37-	2.160	1.463	0.520	1.005	4.620
38-	2.800	1.323	1.240	1.393	4.061
39+	3.040	0.790	2.080	1.320	3.120
40-	2.680	1.030	1.280	1.308	4.206
41+	3.320	0.852	1.480	1.358	5.739
42+	3.360	0.757	2.160	1.344	3.889
43-	0.880	1.054	0.440	1.003	1.512
44+	3.480	0.770	2.440	1.294	3.454
45+	2.920	1.288	1.120	1.424	4.687
46-	3.440	0.768	2.520	1.475	2.766
47-	1.640	1.150	0.520	0.963	3.733
48+	2.360	1.287	0.440	0.821	6.289
49-	1.560	1.609	0.600	1.000	2.533
50+	3.040	1.098	1.480	1.122	4.966
51+	2.560	1.044	1.600	1.258	2.936
52-	1.480	0.963	1.160	1.281	0.999
53-	3.120	1.201	0.520	0.872	8.758
54-	3.000	0.816	1.200	1.080	6.647
55-	2.320	1.282	1.800	1.581	1.277
56+	2.840	1.028	1.720	1.173	3.590
57+	3.280	0.614	2.480	1.085	3.209
58-	2.720	1.242	0.960	0.935	5.661
59-	3.080	0.954	0.520	0.872	9.905
60+	3.240	0.831	0.560	0.961	10.550

## APPENDIX V (Continued)

## MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

## t-VALUES OF 100 ITEMS

ITEMS	M <sub>H</sub>	S.D. <sub>H</sub>	M <sub>L</sub>	S.D. <sub>L</sub>	t-VALUE
61+	3.480	0.653	2.520	1.295	3.310
62-	3.520	0.586	1.600	1.354	6.507
63+	3.240	0.663	1.120	0.927	9.297
64-	1.040	1.241	0.520	1.159	1.531
65-	2.280	1.400	1.600	1.500	1.657
66+	3.080	1.152	1.640	1.287	4.169
67+	3.280	0.843	2.200	1.155	3.778
68-	2.120	1.364	0.840	1.028	3.747
69+	3.520	0.714	1.320	1.145	8.154
70-	2.600	1.155	1.240	1.422	3.712
71+	2.920	0.909	2.640	1.221	0.920
72-	3.280	0.980	0.840	1.068	8.419
73+	3.000	1.000	1.000	0.957	7.223
74-	2.280	1.339	1.040	1.369	3.238
75+	3.440	0.712	2.080	1.498	4.101
76-	2.680	1.069	1.800	1.414	2.482
77-	3.240	0.779	0.960	1.207	7.936
78+	3.360	0.757	2.240	1.234	3.867
79+	2.960	1.020	2.040	1.399	2.657
80-	2.240	1.393	0.600	0.816	5.079
81+	3.240	1.200	1.200	1.225	5.949
82-	2.240	1.234	0.840	1.106	4.224
83-	2.800	1.080	1.760	1.091	3.387
84-	3.360	0.757	1.920	1.441	4.423
85-	1.880	1.333	1.240	1.012	1.912
86+	3.520	0.510	2.200	1.041	5.694
87-	2.400	1.258	0.720	0.891	5.449
88-	3.120	1.013	1.000	1.118	7.025
89+	2.960	1.060	0.720	0.843	8.272
90+	3.360	0.810	2.520	1.122	3.034
91-	2.280	1.137	0.400	0.913	6.446
92-	3.120	1.013	2.160	1.344	2.852
93+	2.680	1.314	1.120	1.269	4.270
94+	3.400	0.500	1.400	1.258	7.358
95+	2.240	1.234	1.760	1.234	1.375

## APPENDIX V (Continued)

## MEANS AND STANDARD DEVIATIONS OF HIGH AND LOW GROUPS

## t-VALUES OF 100 ITEMS

ITEMS	$M_H$	S.D. <sub>H</sub>	$M_L$	S.D. <sub>L</sub>	t-VALUE
96+	2.360	1.287	1.240	0.970	3.475
97-	2.480	0.963	0.560	0.917	7.223
98+	2.480	1.159	1.600	1.555	2.269
99+	3.320	0.690	1.600	1.225	6.117
100-	2.360	1.221	0.520	1.046	5.724

## APPENDIX VI

### ANGEL GUARDIAN RATING SCALE

Name \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_ Date \_\_\_\_\_

**DIRECTIONS:** The following statements were made by children living at Angel Guardian. We would like to know if you feel the same way about the Home as these children do. Read each statement carefully and then show how much you agree or disagree with it by circling one of the five choices under each statement.

1. The school at the Home gives us a good education.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
2. The grown ups at the Home act as if they do not want the children to have fun.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
3. The teachers at the Home help you when you need it.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
4. The children at the Home are happy most of the time.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
5. It seems that the grown ups at the Home do not want you to think for yourself.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
6. The grown ups at the Home take good care of me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
7. It is hard to figure out what the rules of the Home are.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

8. My cottage at the Home is very nice.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
9. Most of the rules at the Home should be changed.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
10. Everyone at the Home works hard to make it a nice place for the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
11. It is hard to trust the grown ups at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
12. It seems like I can never do anything right at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
13. I am glad that I came to the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
14. Telling the Priests and Nuns how you feel gets you into trouble at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
15. The recreation program at the Home helps me to stay healthy.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
16. The rules at the Home help me to be a better person.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
17. The work that I have to do at the Home makes me feel like a slave.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
18. No one at the Home helps you with your problems.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

19. I think that everything at the Home is fine.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
20. Living at the Home is like being in a prison.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
21. The grown ups at the Home are always bossing you around.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
22. It is easy to obey the rules at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
23. Some of the Nuns at the Home should be sent somewhere else.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
24. The Home teaches me how to be a good Catholic.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
25. The nurses at the Home do their best to help the children.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
26. I wish that I could live at a different cottage at the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
27. My cottage Nun does not seem to like me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
28. The food that we get at the Home tastes good.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
29. I feel like running away from the Home.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree
30. The Home is the best place for me.  
(a) Strongly agree (b) Agree (c) Undecided (d) Disagree (e) Strongly disagree

## APPENDIX VII

### ESSAY SUPPLEMENT TO ANGEL GUARDIAN RATING SCALE

Please write a short paragraph, stating in your own words, how you feel about the Home.

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## APPENDIX VIII

### ANGEL GUARDIAN STAFF RATING SCALE

Student's Name \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_

Rater's Name \_\_\_\_\_ Position \_\_\_\_\_ Date \_\_\_\_\_

**DIRECTIONS:** Please rate the above named student as to the degree of positive or negative attitude you believe him/her to have towards each of the following aspects of institutional life. Read each statement carefully and then circle one of the five choices which best represents the student's attitude.

1. Attitude toward the school at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
2. Attitude toward the Nuns at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
3. Attitude toward his/her Cottage at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
4. Attitude toward his/her assigned job at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
5. Attitude toward the rules at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
6. Attitude toward the Priests at A.G.O.:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
7. Attitude toward the grown ups at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive

8. Attitude toward the Religious program at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
9. Attitude toward the other children at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive
10. Attitude toward the food at A.G.O. is:  
(0) Strongly Negative (1) Negative (2) Neutral (3) Positive (4) Strongly Positive

# APPENDIX IX

## PRE- AND POST-TEST GAIN SCORES

### OF EXPERIMENTAL GROUP AND CONTROL GROUP I

Subject Pair	EXPERIMENTAL GROUP			CONTROL GROUP I			Difference in change
	Pre- Test	Post- Test	Change	Pre- Test	Post- Test	Change	
1	34	50	+16	37	28	-09	+25
2	48	93	+45	49	60	+11	+34
3	68	74	+06	62	77	+15	-09
4	32	31	-01	27	28	+01	-02
5	43	46	+03	43	35	-08	+11
6	79	86	+07	98	102	+04	+03
7	22	51	+29	24	36	+12	+17
8	50	60	+10	51	49	-02	+12
9	64	73	+09	63	68	+05	+04
10	71	78	+07	71	73	+02	+05
11	60	69	+09	60	61	+01	+08
12	50	49	-01	56	76	+20	-21
13	82	82	00	80	80	00	00
14	44	70	+26	56	30	-26	+52
15	64	71	+07	61	80	+19	-12
16	94	91	-03	94	94	00	-03
17	92	93	+01	93	87	-06	+07
18	73	75	+02	74	72	-02	+04
19	93	97	+04	91	88	-03	+07
20	79	79	00	80	63	-17	+17
21	50	55	+05	50	57	+07	-02
22	59	60	+01	59	62	+03	-02
23	67	67	00	67	49	-18	+18
24	70	90	+20	70	62	-08	+28
Mean	62.000	70.416	+8.416	63.166	63.208	.042	+8.375
X <sup>2</sup>			202			1.000	201
X <sup>2</sup>			4710				7351

$$S_{MDch} = 3.204$$

$$\underline{t} = 2.613^*$$

\*p. < .01

## APPENDIX IX (Continued)

## PRE- AND POST-TEST GAIN SCORES

## OF EXPERIMENTAL GROUP AND CONTROL GROUP II

Subject Pair	EXPERIMENTAL GROUP			CONTROL GROUP II			Difference in change
	Pre- Test	Post- Test	Change	Pre- Test	Post- Test	Change	
1	34	50	+16	32	35	+03	+13
2	48	93	+45	48	70	+22	+23
3	68	74	+06	72	73	+01	+05
4	32	31	-01	31	42	+11	-12
5	43	46	+03	44	41	-03	+06
6	79	86	+07	73	69	-04	+11
7	22	51	+29	27	31	+04	+25
8	50	60	+10	47	47	00	+10
9	64	73	+09	58	54	-04	+13
10	71	78	+07	70	81	+11	-04
11	60	69	+09	60	61	+01	+08
12	50	49	-01	54	52	-02	+01
13	82	82	00	82	84	+02	-02
14	44	70	+26	56	54	-02	+28
15	64	71	+07	64	62	-02	+09
16	94	91	-03	95	77	-18	+15
17	92	93	+01	93	100	+07	-06
18	73	75	+02	75	82	+07	-05
19	93	97	+04	93	79	-14	+18
20	79	79	00	79	80	+01	-01
21	50	55	+05	39	32	-07	+12
22	59	60	+01	57	55	-02	+03
23	67	67	00	68	67	-01	+01
24	70	90	+20	71	70	-01	+21
Mean	62.000	70.416	+8.416	62.000	62.416	0.416	+8.000
X			202			10.000	192
X <sup>2</sup>			4710			1484	4074

S<sub>MDch</sub> = 2.144  
 $t = 3.731^*$

\*p. < .001

## APPENDIX IX (Continued)

## PRE- AND POST-TEST GAIN SCORES

## OF CONTROL GROUP I AND CONTROL GROUP II

Subject Pair	CONTROL GROUP I			CONTROL GROUP II			Difference in change
	Pre- Test	Post- Test	Change	Pre- Test	Post- Test	Change	
1	37	28	-09	32	35	+03	-12
2	49	60	+11	48	70	+22	-11
3	62	77	+15	72	73	+01	+14
4	27	28	+01	31	42	+11	-10
5	43	35	-08	44	41	-03	-05
6	98	102	+04	73	69	-04	+08
7	24	36	+12	27	31	+04	+08
8	51	49	-02	47	47	00	-02
9	63	68	+05	58	54	-04	+09
10	71	73	+02	70	81	+11	-09
11	60	61	+01	60	61	+01	00
12	56	76	+20	54	52	-02	+22
13	80	80	00	82	84	+02	-02
14	56	30	-26	56	54	-02	-24
15	61	80	+19	64	62	-02	+21
16	94	94	00	95	77	-18	+18
17	93	87	-06	93	100	+07	-13
18	74	72	-02	75	82	+07	-09
19	91	88	-03	93	79	-14	-11
20	80	63	-17	79	80	+01	-18
21	50	57	+07	39	32	-07	+14
22	59	62	+03	57	55	-02	+05
23	67	49	-18	68	67	-01	-17
24	70	62	-08	71	70	-01	-07
Mean	63.166	63.208	.042	62.000	62.416	0.416	-1.291
$X_2$			1.000			10.000	-31
$X^2$			2907			1484	3963

$$S_{MDch} = 2.666$$

$$\underline{t} = -.484^*$$

\*non-significant

## APPENDIX X

Description of the Institutional Environment<sup>1</sup>

The Institution. Angel Guardian is a voluntary agency under the auspices of the Catholic Charities of the Archdiocese of Chicago. It is a full-time, residential home for dependent boys and girls and serves mainly Cook County and occasionally Lake and DuPage Counties, all in Illinois. The title of "Orphanage" is now a misnomer as less than one per cent of the current child population can be classified as orphans. Angel Guardian is classified as providing "custodial" care which in essence indicates that it provides shelter, administers to the child's physical needs and places maximum emphasis on the child's compliance with the general routine of the Institution.

The Physical Environment. The property of Angel Guardian consists of forty-five acres located in a middle-class, residential neighborhood on the north side of Chicago. The buildings include church, rectory, convent, administrative and school buildings, infirmary, thirteen two-story residential buildings having two cottages to each building, two gymnasiums, a swimming pool, auditorium, florist, print and maintenance shops, and a laundry which has a commercial type operation and dry cleaning facilities.

<sup>1</sup> The writer wishes to express his appreciation to the Angel Guardian staff for their permission to use information from a handbook for parents, currently under preparation, for some of the material in this Appendix.

The grade school cottages consist of ten for the boys and seven for the girls. Each cottage houses approximately twenty-six children, ranging from the first through the eighth grade within each cottage. Pre-school and kindergarten children occupy two cottages, also separated by sex. The high school boys are maintained in three cottages, the high school girls in two. Each cottage functions primarily as a discrete family unit, having separate dining, living, and recreation areas, although these units merge together in many of the school, recreation, and sports programs.

In general, Angel Guardian can be classified as providing a middle-class physical environment for the children living there.

The Staff. The staff consists of an administrator ( a priest appointed by the Archbishop of Chicago ), and three assistant priests who work directly with the Sisters and the children. The Poor Handmaid Sisters are in charge of the cottages, school, and associated functions of the Institution. They include a superior, school principal, cottage sisters, teachers, office personnel, nurse, dietary and laundry supervisors (total of 56 nuns). Working in conjunction with the religious staff are a lay staff composed of a doctor, nurse, dentists, teachers, coaches, and engineer plus maintenance employees. A volunteer program consisting of approximately one hundred sixty volunteers provide additional service to the staff and children. Casework, psychological, and psychiatric service are provided for the children by the Catholic Charities of Chicago.

Staff to Child Ratio. Those staff having the opportunity for the

most meaningful relationship with the children are the cottage mothers, the teachers, the three priests who act as group moderators, and the caseworkers. The total child population ranges from six to seven hundred. Each cottage has approximately twenty-six children and each classroom approximately thirty children. The number of children under the priest group moderator ranges from sixty-three to two hundred fifty and approximately three hundred children are assigned to each caseworker.

The Children. The children range in age from two and one-half to nineteen years of age. The upper age limit is determined by graduation from high school, when the child must leave the institution. The length of time spent in the Institution ranges from a few months of temporary care to the permanent placement which may be as long as sixteen years. The child must have a minimum I.Q. of 85 and be free of any physical or mental handicaps which would prevent him from attending a regular school program or which would prevent him from fitting into the regular routine of the institution.

The children can be best classified as dependent children as the majority of them are placed within the institution during childhood and are not classifiable as either delinquent or emotionally disturbed. The usual reason for placement is some disruption of the family unit through death, desertion, emotional illness, irresponsibility or other inadequacy of one or both parents. The child who is accepted for permanent placement may be of any race or nationality, but must be Catholic or have a Catholic background.

Authority Structure. As a preface to the following description of the various aspects of the institutional environment, it must be stated that Angel Guardian has been in transition for the past three years and continues to be. The growth process has been slow and at times highly conflictual. However, positive change in most areas continues to occur.

The priest administrator has ultimate authority relative to institutional policy. The sister superior has primary authority over all the nuns and the principal has authority over the teaching staff. The three priest assistants' authority is limited primarily to the particular group that they are in charge of and to whatever additional role they are assigned. Individual nuns and lay staff who are in charge of particular areas have considerable authority within that area. Typically, those staff members who work most closely with the children and who have the greatest awareness of their needs, have the least voice in determining policy which effects them.

Unilateral decisions are the rule rather than the exception with independence of behavior and originality of thought among the staff being implicitly discouraged.

In general, rules and regulations relating to the children are poorly defined. A common complaint of both the children and staff is that they have difficulty in determining what is expected of them.

Communication. Communication within and between the various authority levels of the staff is limited and conflictual, although there continues to be improvement. Communication problems are fostered by the numerous roles demanded of the religious staff, with these limiting not only their

availability to each other but also to the children. The number of these demands is unrealistic, although necessitated by the limited number of staff, and make it extremely difficult for the staff to function in other than a custodial role with the children.

#### General Attitudes and Behavior of the Staff Towards the Children.

Minimal consensus of agreement exists among the staff members relative to a basic perception of the child and his needs. Disagreement relative to general guidelines on expectations, privileges, and discipline are common. A marked disparity exists between the general attitude towards the male child as towards the female child. (This attitude is primarily manifested when the child reaches high school age.) This difference takes the form of over-protection towards the girls; minimal independence permitted; greater number of hours spent at assigned jobs within the institution; assignment to jobs usually of a domestic variety; and much less time outside of the institution.

The majority of the child's day and evening is carefully scheduled with there being an apparent basic expectation that the child will get into trouble if he is not kept busy.

Verbal aggressiveness and expression of negative feelings towards the staff or institution is generally viewed as disrespectful and rebellious and is strongly discouraged. The general attitudes and behavior of the staff towards the children is felt to encourage passive-aggressive and passive-dependent adjustment.

Defined Expectations of the Children. All children of school age are expected to attend the school within the institution. All children

are given some responsibility relative to their own cleanliness, to the order and care of their possessions and to the general cleaning of their cottage. High school boys and girls are given job assignments to work in various shops or at domestic type tasks. They attend high school classes for one-half of the day and work at their job assignment for the other half. At the current time, the number of staff is such that additional employees would have to be hired if the children did not work. Recently the senior high school boys and girls have received permission to obtain outside employment on Saturdays.

Boy-girl interaction, except in scheduled activities is strongly discouraged. Indiscreet behavior between a boy and girl, indicating the establishment of a strong boy-friend - girl-friend relationship, may lead to expulsion.

The children are required to attend Mass every other day, Sundays and on holy days. Periodic attendance at confession is encouraged, with prayers and religious instruction being a part of the child's routine.

As stated previously, Angel Guardian is in transition at this time. Many of the staff members are quite active in attempting to facilitate positive change throughout the institutional environment and are slowly, but successfully accomplishing this.

## APPROVAL SHEET

The dissertation submitted by Rudolph R. Deyle has been read and approved by five members of the Department of Psychology.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the dissertation is now given final approval with reference to content, form, and mechanical accuracy.

The dissertation is therefore accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy.

January 30, 1967  
Date

Frank H. Noble  
Signature of Adviser