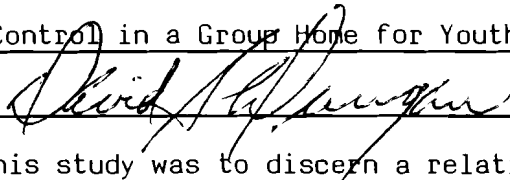


AN ABSTRACT OF THE THESIS OF

Janese M. Ferguson for the Master of Science  
in Clinical Psychology presented on \_\_\_\_\_

Title: Effectiveness of Behavioral Contracting Procedures as Related  
to Locus of Control in a Group Home for Youths

Abstract approved: \_\_\_\_\_



The purpose of this study was to discern a relationship between locus of control and behavior contracting procedures. The premise was that persons with an internal locus of control would perform behaviors at a significantly higher rate than externals. The dependent variable was effects of contracting procedures; the independent variable was locus of control. Subjects were youths placed in a group home facility. There were 12 males and 12 females, ranging in age from 9 to 17.

A between subjects design was implemented. The Nowicki-Strickland Locus of Control Scale for Children was initially administered as a measure of internality/externality. Those scoring above the sample mean of 18.33 were designated as externals, those below the mean were internals.

House parents, each youth, and the researcher together negotiated contracts. Two contracts were developed for each resident, one for home rules and one for chores. Incidences of appropriate and inappropriate behaviors were recorded in chart format. The study ran for five weeks; one week baseline, three weeks treatment, and one week post-treatment. Data were score data, derived from the tally of occurrences of appropriate behavior. Data were statistically analyzed by means of a t test.

Results indicated that neither null hypotheses was rejected: The

differences between the locus of control groups and their adherence to behavioral contracts were not significant for either type of contract. The computed t value, though, for contracts concerning home rules did approach significance. Percentages of appropriate behavior were also calculated. Results indicated that contracting lead to increases in appropriate behavior and that the increase for the internal group was greater than that for the external group. It was indicated that the statistical insignificance of this study may have been related to the test scores for this sample being skewed in an internal direction.

EFFECTIVENESS OF BEHAVIORAL CONTRACTING PROCEDURES  
AS RELATED TO LOCUS OF CONTROL  
IN A GROUP HOME FOR YOUTHS

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A Thesis  
Presented to  
Division of Psychology  
EMPORIA STATE UNIVERSITY

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science

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by  
Janese M. Ferguson  
September, 1988

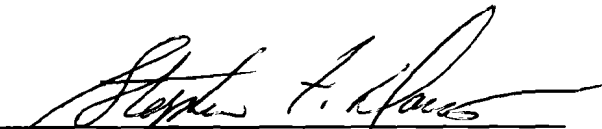
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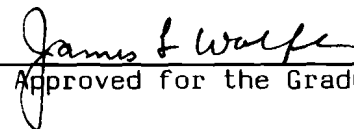
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I extend my thanks to Mr. Chiles, Kathy, Debbie, Lenis, Lynna, Pat, and Mark for their help in implementing this project. To my family, particularly my mother, I extend thanks for encouragement to finish what I had started. Most of all, though, I would like to express my deep appreciation to my husband, Charles, for his support during this trying time.

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Dr MAR 10 '89

  
Approved for the Major Department

  
Approved for the Graduate Council

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## CHAPTER 1

### Introduction

Reinforcement is recognized as a strong factor determining behavior. The relationship between reinforcement and behavior, though, is not a simple one. The perception of causation between one's behavior and resulting consequences varies from person to person. One factor believed to determine these differences in perception is locus of control (Rotter, 1966).

Locus of control is a generalized expectancy which covers a wide range of situations. Control is categorized into two major factions, those being internal and external control. As first defined by Rotter, Seeman, and Liverant (1962), the different control factions are determined by the amount of responsibility one accepts for what happens to oneself. Lefcourt (1966) defined internal and external locus of control as follows:

Internal control refers to the perception of positive and/or negative events as being a consequence of one's own actions and thereby under personal control; external control refers to the perception of positive and/or negative events as being unrelated to one's own behaviors in certain situations and therefore beyond personal control (p. 207).

As locus of control is defined, it is a 'person' variable. Person variables relate to the individualized reinforcement history which produces different probabilities of behavioral responses (Ollendick, Elliot, and Matson, 1980). Studying the effects of such person variables in relationship to behavioral responses provides valuable

information, as behavior is viewed as learned through an interaction between a person and his or her environment. Behavior is then seen as a function of one's environment which will "shape, elicit, facilitate, and even provoke" certain kinds of behavior (Braukman, Ramp, & Wolf, 1981, p. 213). If behavior is learned in such a manner, then behavior modification programs should evaluate the effect of person variables (such as locus of control) in relationship to the success rates of such programs. This study concerns the relationship between locus of control and youths adherence to behavioral contracting procedures as conducted in a group home setting.

#### Review of Related Literature

The treatment of childrens' behavior problems has a long theoretical basis but is short on applied techniques (Croghan & Frutiger, 1977). Behavior management through contracting procedures is becoming more important in therapeutic usage (DeRisi & Butz, 1975). Behavioral contracting has been used for countless generations but has not employed explicit terms or been used systematically. The concept, though, does have face validity and is based on simple, straightforward principles. It allows undesirable behaviors to be unlearned and desirable behaviors to be learned.

As a definition, behavior contracts are written agreements between two or more people that specify relationships between behavior and consequences. Contracts describe who does what for whom under what circumstances (Gambrill, 1977). They have a solid foundation in social learning theory based on the premise that behavior is strengthened or weakened depending on its consequences (Homme, Csanyi, Gonzales, & Rechs, 1970).

The contract process consists of setting behavioral objectives which are definable, observable, and measurable, in a structured step-by-step format. Contracts make explicit the implicit basis of most human interactions. They do so through a negotiation process involving positive behavior changes through application of positive reinforcement and response cost (Gambrill, 1977). Mutual concerns are established and conditions of tasks and roles are clarified. Gambrill (1977) notes that by making expectations explicit, freedom can be increased in interpersonal exchanges. Freedom means the opportunity to make behavioral choices with the knowledge of possible outcomes of alternatives. Without rules, any action has an equal probability of being reinforced, extinguished, or punished.

Contracting is an appropriate procedure if: (a) There are specified measurable changes in behavior necessary which would improve a child's interaction with others, and (b) If both parties are willing to work on improvements of problematic behaviors through contracting (Croghan & Frutiger, 1977).

Several guidelines for devising and implementing effective contracts are noted in the literature (Homme et al., 1970; Johnston, 1983; Martin, 1977; Martin & Pear, 1983; Weathers & Liberman, 1975). Essentially there are five major areas that must be considered. These are: (a) selecting the behaviors for change, (b) breakdown into responsibilities, (c) selection of desired privileges, (d) consequence setting, and (e) implementation procedures.

Successes with behavioral contracting have established it as one of the most significant developments in applied psychology in the twentieth century (Homme et al., 1970). Behavioral contracting is a

relatively new concept, based on the pioneering work of Homme in the area of classroom management. Since that time, behavioral contracting use has extended to correcting many different problematic behaviors. Keat and Judah (1979) provide a reference table indicating the effectiveness of contracting in such areas as acting out, defiance, behavioral disorders, enuresis, lack of motivation, stealing, truancy, tardiness, and aggression. Contracting use has also been successfully applied with many different populations, including emotionally disturbed children, delinquents, and adolescents within the family unit.

#### Contracting Between Youths and Parents

The majority of published work with behavioral contracting has dealt with family interactions (Martin & Pear, 1983). Studies generally center on contracting between delinquents and their parents or adolescents within the family unit. Patterson and Reid (1970) pointed out that deviant youth behavior is seen as a function of the system that the youth comes from. The primary problem in the family interaction system seems to be lack of reciprocity and maladaptive communication patterns. Patterson and Reid recommended a contracting process to correct these factors.

Alexander and Parsons (1973) used contracting in addition to a family training manual and a token economy. Reciprocity and clarity of communication was enhanced for the families of 46 delinquents. In addition, a significantly reduced recidivism rate was found at follow-up as compared to 30 families receiving no professional treatment. Alexander and Parsons concluded that the most effective method of changing family communication patterns which result in maladaptive

behavior is through communication skills training, using contracting as a part of the procedure.

Klein, Alexander, and Parsons (1977) did a  $2\frac{1}{2}$  -  $3\frac{1}{2}$  year follow-up on the rate of sibling involvement with the court from the subjects involved in the Alexander and Parsons (1973) study. The incidence rate was  $1/3$  to  $1/2$  lower for the treatment group as compared to the alternative family therapy group and the group receiving no treatment. This indicates that deviance does not occur within an individual but comes from the system of which he is a part (Haley, 1971). Positive change in an individual can be maintained and explained by the fact that intervention occurs within the system.

The Youth Services Program (YSP) of the Dallas Police Department is another example of contracting set up with juvenile delinquents. The YSP uses behavioral contracting between youths and their parents in order to divert juvenile offenders from the criminal justice system and to reduce recidivism (Douds, Engelsgerd, & Collingwood, 1977). In 2000 cases, behavioral contracting accounted for 74% of the youths experiencing improvement in following rules at home, 72% improved in communication effectiveness, and 54% increased their time spent in studying. There was also a recidivism rate noted of 10.7% as compared to 42.7% for a control group.

Besalel and Azrin (1981) implemented behavioral contracting procedures between 29 youths, ages 6 to 16, and their parents. Behaviors were contracted for stealing, aggression, truancy, and lack of parental control. In addition to contracting, positive communication training and self-correction procedures were used. Besalel and Azrin found that the number of parent reported problematic behaviors decreased by 75%

with little or no decline reported for the control group. The reduced severity of problematic behaviors endured at the six month follow-up.

Eyberg and Johnson (1974) implemented contracting procedures for 17 families; the problematic behaviors concerning the children's aggressiveness, destructiveness, and disobedience. They manipulated two components: (a) contingency vs. non-contingency reinforcement, and (b) the order of difficulty of behaviors being modified (easy vs. hard to modify behaviors). There was no significant effect found for the manipulation of the order of difficulty of behaviors being modified. Parental observation data and attitude change towards the children's behavior indicated a significant success rate. There was only a modest degree of success, though, as judged by the behavioral data collected by other observers in the home. As shall be indicated in the literature review, one of the problems associated with contracting procedures between youth and their parents is that data is subjectively reported, thus lacking in credibility.

Stuart and Lott (1972) were also interested in the relationship between the content of contracts and behavioral achievements. They implemented contracts with 79 predelinquent families on a time constrained basis (15, 45, or 90 day contracts). They found that the content of contracts, or the number of provisions, was unrelated to treatment outcome. Time allotted for contracts also did not significantly effect outcome. This study suggests that the content and length of implementation for contracts may not effect adherence. The notion that a contract exists and that a negotiation process was undertaken may predispose families to work on resolving conflicts. The major problem with Stuart's and Lott's investigation, though, was that

the measures used may have been inappropriate. For instance, attitude change measures used may be unrelated to actual behavior change.

Patterson (1974) conducted an experiment that also had questionable components. His investigation centered on 27 children labeled as 'conduct disordered.' Through daily reports and direct observation, significant decreases were found for inappropriate behaviors in home and classroom situations. Follow-up data showed persistent effects. It is questioned, though, what treatment mode contributed to the success of the program as several treatment components were combined (peer group involvement, behavioral contracting, and programmed text).

In a response to Patterson's (1974) study, Kent (1976) claimed that there were also numerous inadequacies in design and analysis for the home part of the behavior analysis. Kent claimed that only 16 of the subjects in Patterson's study were available for follow-up and that when the analysis was done for those 16 subjects, there were no significant treatment effects. Data indicated that 7 of those 16 youths were within the normal range of behavior at baseline. Kent also claimed that factors related to success at follow-up may have determined availability during follow-up. Patterson's results indicated that youths unavailable at the one year follow-up showed deviant behavior 23.9 times greater during baseline than the youths completing the study.

Reid and Patterson (1976) responded to Kent's (1976) criticism by claiming that there were substantial follow-up data available for 20 subjects. Also all experiment dropouts indicated the highest levels of deviant behavior in all phases. These seriously disturbed subjects contributed most to the treatment effect and showed no trend to return to baseline at the last observation session.

In effect, Reid and Patterson (1976) offered a weak rebuttal for criticisms presented of Patterson's (1974) study. This is an example of the problems found with contracting investigations and the questioned significance of the interpretations of results obtained.

In other investigations, structured board games have been a popular device used to increase interpersonal problem-solving behavior (Weathers & Liberman, 1975). The strategy is to strengthen problem-solving behaviors that will weaken the family's antagonistic behaviors that are disruptive to problem-solving. As Blechman (1974) states, in a fifteen minute time span, contracts can be devised designating a target behavior, a replacement behavior, and listing methods for data collection and reinforcement schedules.

Blechman, Olson, and Hellman (1976) and Blechman, Olson, Schornagel, Halsdorf, and Turner (1976) used a contract game format to overcome problems of severe conflict, schizoid characteristic behaviors, and enuresis. In the studies, it was found that on task problem-solving behavior improved significantly and off task antagonistic behavior decreased after use of the game between adolescents and their parents. When the game situation was withdrawn, a significant decline in problem-solving behavior was noted, but results indicated that such behavior was still an improvement over problem-solving before contract implementation. The behavioral contracts devised for the game but never implemented indicated a borderline reduction in problematic behaviors.

#### Contracting Research in Group Home Facilities

Several investigators have implemented contracting procedures in



residential treatment facilities for emotionally disturbed adolescents (Bardill, 1972; Gundel, 1978; Janzen & Love, 1977). They found that contracts resulted in improved interpersonal relationships and a significant reduction in acting out behavior for both males and females. Bardill (1972) also indicated that the boys significantly improved in their ability to verbalize aggressive feelings. Bardill's program has proven to be a consistent success with an expanded reward structure (Bardill, 1973; Bardill, 1977). An obvious shift was noticed for his subjects from control issues to therapeutic enhancement. Contracts do bring about immediate improvements in the behavior of troubled adolescents (Weathers & Liberman, 1975; Weathers & Liberman, 1978). The recommendations from these studies were that contracting is an effective procedure as it allows youths to identify problematic behavior, be actively involved in deciding on a treatment plan, and be involved in evaluating its effectiveness.

#### Locus of Control as Related to Contracting Procedures

Investigations in this area have pointed out the need to examine treatment and person variables to understand responses to such behavior modification programs as contracting. Person variables are an important consideration as it is believed that behavior is learned through an interaction of persons and their environments. Thus, several studies have investigated the relationship of locus of control, a person variable, to responses to behavioral contracting procedures.

Gundel (1978) found behavioral contracting to be the most powerful treatment variable in modifying disruptive behaviors in emotionally disturbed boys. In this study, behavioral contracting was compared

with self-regulation, external regulation combined with self-regulation, and a no treatment condition. Treatment gains, though, with behavioral contracting did not generalize to other times and situations.

Contracting with juvenile delinquents has indicated that those who are internally oriented derive the most benefits from behavior modification programs (Jesness & DeRisi, 1973; Ollendick et al., 1980). Ollendick et al. (1980) administered the Nowicki-Strickland Locus of Control Scale as a measure of internality and externality. They found that juvenile delinquents who were externally oriented experienced a higher recidivism rate and committed a greater number of offenses than internally oriented individuals under contracting procedures.

Such findings tend to support the belief that behavior is learned through an interaction of a person and his or her environment, thus lending support to the social learning approach to treatment. Findings suggest that learning of appropriate behavior is related to both behavioral techniques and to person variables such as locus of control.

#### Reliability and Validity Data on the Nowicki-Strickland Scale

Nowicki and Strickland (1973) administered the locus of control scale to 1017 male and female students in the third through twelfth grades. (As they stated elsewhere, though, this does not mean that the test is inappropriate for use with first and second graders).

For construct validity, the Nowicki-Strickland scale was compared to other locus of control measures. There was a significant relationship between the Nowicki-Strickland scale and the Bialer-Cromwell score, the Intellectual Achievement Responsibility scale, and the Rotter adult scale. Further evidence as measured by relationships with parental education level, intelligence, achievement, and socioeconomic

class is also presented (Nowicki & Strickland, 1973). The preliminary investigation showed that locus of control scores were not related to intelligence test scores or social desirability but they were related to achievement indices.

Results from subsequent studies with a variety of populations and behaviors, have supported the validity of the instrument (Nowicki & Strickland, 1973). As suggested by Nowicki and Strickland, an internal score on the scale is significantly related to social maturity, academic achievement, and seems to be associated with independent, self-motivated behavior.

Coefficients of stability by the test-retest method were reported as adequate for the scale. Tests were conducted six weeks apart and estimates were given for three grade levels. Reported coefficients were .63 for grade three, .66 for grade seven, and .71 for grade ten (Nowicki & Strickland, 1973).

Estimates were also reported for reliability by the split-half method. Reliabilities ranged from .63 for grades three thru five, to .81 for grade twelve. As the test is not arranged according to difficulty and does not use comparable items, the relationship shown by the split-half method underestimates the internal consistency of the measurement (Nowicki & Strickland, 1973). In summary, locus of control seems to be a significant factor influencing childrens' behavior and the Nowicki-Strickland scale appears to be a valid, reliable measurement for this variable.

### Pitfalls of Previous Research

Several problems associated with the concept of behavioral contracting were discovered after reviewing the literature. Foremost,

is the finding that research with behavioral contracting has yielded mixed results in regard to its effectiveness (Kendall & Williams, 1981). These results have included many procedural problems. One is that the effectiveness has often been based on subjective reports and not measured by objective and reliable observations (Besalel & Azrin, 1981; Eyberg & Johnson, 1974). Another reason cited is that contracts are not used systematically. (Note: systematic use is one of the "musts" underlying effective contract procedures).

Other problems with behavioral contracting generally stem from the failure to effectively design and implement the contracts. Several trouble-shooting guides were noted (Gambrill, 1977; Martin & Pear, 1983). Some general guidelines are to be sure that the behaviors are possible and that they occur frequently enough to be monitored. Also attention should be paid to the reinforcers, checking to be sure that they are given at regularly scheduled intervals and that they are in fact reinforcing events.

### Purpose of the Study

This study centered on behavioral contracting with youths placed in a group home facility. As it is likely that group home facilities will continue to provide alternative living arrangements for youths, research must be conducted as to what programs would be more effective in such structures to relieve problematic behaviors. Such facilities are seen as structured therapeutic environments which help neglected and abused youths with emotional disturbances to restructure their values and behaviors to conform to societal expectations.

When youth are placed in such facilities, they are often

classified as having an oppositional behavior disorder. This includes such behaviors as negativistic opposition to authority, procrastination, violation of minor rules, and passive resistance to authority (Gross, 1985). In addition, consideration of the family environment of which the youth came from usually reveals a disturbed atmosphere with a negative problem-solving orientation and a distinct lack of communication skills.

When placement occurs in group home facilities, the major complaints from the youths are that they have no input into the guidelines devised for their conduct. They feel that many of the rules for their expected behavior are arbitrarily set and lack a rational perspective. They perceive that the guidelines are beneficial to those that devise them but they are not seen as beneficial towards their own well-being.

In addition, because of their backgrounds, they feel insecure and distrusting because implicit contingency contracts were more often broken than supported in the past (Douds et al., 1977). Their backgrounds also reveal more negative reinforcement. When there are children that already indicate oppositional tendencies, they are more likely to show increases in coercive behavior when negative consequences are applied (Gambrill, 1977). Therefore, from the above data, it could be deduced that these youths would tend to show oppositional and distrusting behavior towards the guidelines set up at the group home. This would act as a further factor of noncompliance in addition to the youth's original oppositional tendencies.

One solution to this problem would be to set up individual behavioral contracts. Contracts would allow for treatment to be

individualized; all youths do not indicate the same inappropriate behaviors. This would allow the youths to be active participants in their treatment, which in turn would enhance treatment effects. This follows from Brehm's reaction theory (1966), which states that when people believe they have a choice in their behavior, they are more likely to comply. Through this process, youths can also acquire desirable problem-solving skills.

If implemented, behavioral contracting would teach the youths physical, intellectual, and emotional skills that would enhance behavioral improvements in their home and school environments (Douds et al., 1977). Contracting would help establish the youth care workers authority. It would move participants from forced compliance to reciprocal exchanges, enhancing treatment effects. On the other hand, the typical authoritarian position would tend to remind the youths of the physical and emotional abuse that they experienced in the past, detracting from treatment.

Contracting would change the subject's view to a problem-solving orientation and would restructure their thoughts towards a goal (Janzen & Love, 1977). Writing down specific goals and reinforcements also eliminates the vagueness for behavioral expectations, while teaching youth the reasonableness for delay of gratification.

Use of contracts is also advantageous because of the relative ease of implementation. Also the types of behaviors seen from the children are amenable to this type of treatment. Contracting is appropriate as adults are responsible for the control of childrens' environments and they are therefore powerful agents for dispensing reinforcement.

The above data points to the question of concern: Was there a significant relationship between contingency contracting and behavioral improvements for children placed in a group home facility?

The second point of concern was the type of persons for whom behavioral contracting would be most effective. Research has tended to center on environmental variables rather than 'person' variables (Ollendick et al., 1980). As indicated previously, person variables may play a major part in the learning of behavior. Further research is necessary to determine if there is a significant difference between internal and external oriented persons and their reactivity to behavioral contracting procedures.

#### Statement of the Null Hypotheses and Variables

Locus of control dimensions were studied in relationship to the effectiveness of contracting procedures. Therefore, the dependent variable in this study was the effects of behavioral contracting procedures, while the independent variable was the locus of control. The independent variable had two levels; internal and external locus of control. As indicated by previous research, it was expected that the internal group would show more significant behavioral improvements under contracting procedures than the external locus of control group. This means that the internal group would perform the stipulated contract behaviors at a significantly higher rate than the external group.

#### Hypothesis one (Null form)

There was no significant difference between neglected and abused youths and their adherence to behavior contracts concerning home rules, as measured by their internal or external locus of control.

Hypothesis two (Null form)

There was no significant difference between neglected and abused youths adherence to behavior contracts concerning chores, regardless of their internal or external locus of control orientation.

In summary, this study attempted to point out how the acquisition of appropriate behavior was related to specific behavioral techniques (contracting) and to such person variables as locus of control. As indicated, the purpose of this study was to show that an internal locus of control had a more significant impact on behavioral improvements through contracting procedures. As Phares (1976) stated, an internal locus of control is necessary for behavior change to be significant and of lasting value.

Thus the significance of this study was twofold. One point was the identification of the type of persons for whom contracting would be effective. The second point of concern was that the specification of person variables could lead to greater effectiveness and refinement of such behavior programs.



## CHAPTER 2

### Methods and Procedures

This study was based on the premise that behavioral contracting would lead to improvements in the specifically chosen social and emotional behavior objectives for youth placed in a group home facility. Specifically, this study was concerned with whether or not resulting behavioral improvements differed depending on one's locus of control. The following sections contain the descriptions of population and sampling techniques, the materials and instrumentation used, the design implemented, the method of data collection, and the statistical analysis employed.

#### Population and Sampling

Participants in this study were youths placed in a group home facility in an average sized midwestern town. Children are placed either by court decision or on a voluntary basis by parents/guardians. The facility houses 24 residents, 12 females and 12 males, ages 9 to 17. As indicated, the sampling procedure was based on the use of intact groups. This was a necessary condition of the research in compliance with the wishes of the facility administration. Due to the sample size and design, this study was a preliminary investigation regarding effectiveness of contracting procedures as related to locus of control orientation.

It was believed that this sample would be representative of the larger population of neglected and abused youths with mild emotional and behavioral problems placed in group home facilities, as there are

similar behavioral expectations for placement in such facilities. It is also felt that sampling of this size was appropriate for this study because of this established placement criteria. Criteria for placement are situations involving neglect, abuse, and parent/child difficulties. In the general population such problems occur but do not come to the attention of authorities. It would seem that the results of this study pertain to these subjects but with difficulty as this is an unspecified population.

Several presenting difficulties were present in one case. In this study, approximately 33% of the subjects were placed in the facility because of parent/child difficulties (children generally out of instructional control). Approximately 46% of the children were placed because of physical or sexual abuse. Approximately 50% were placed because of the parents' inability to care for them; such situations as financial difficulties, parents required hospitalization or incarceration.

### Materials and Instrumentation

#### Nowicki-Strickland Locus of Control Scale

The Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1973) was initially administered as a measure of internality/externality. The scale is a paper and pencil test consisting of 40 items to which the subject responds yes or no. The construction of the scale was derived from the internal/external dimension as defined by Rotter (1966). The items describe reinforcement situations across motivational and interpersonal areas such as achievement, affiliation, and dependency (Nowicki & Strickland, 1973). Items are keyed for an external dimension of control.

## Behavioral Contracting Process

Several guidelines have been established for devising effective contracts (Blechman, 1974; Blechman, Olson, & Hellman, 1976; Blechman, Olson, Schornagel, Halsdorf, & Turner, 1976; DeRisi & Butz, 1975; Douds et al., 1977; Gambrill, 1977; Homme et al., 1970; Johnston, 1983; Weathers & Liberman, 1975). The entire process of devising contracts for this study consisted of six steps. They were as follows:

1. Discovering the existing problem areas and the need for change. Motivation was needed at this point for the youth to acknowledge problems and the need for change. A list of common behavioral problems was devised based on referral information and daily observation of behavior at the Home. These behaviors were directly observable, quantifiable, and of frequent occurrence. It was discussed where and when the behavior occurred, how often, and what others did when it occurred. For each child two problem behaviors were selected, one from each of the following categories: (a) chores and (b) home rules.

2. Specific behavioral expectations were negotiated regarding the pleasing replacement behavior (or goal behavior). Goal behaviors needed to be specific behaviors that could be substituted for the inappropriate or problem behavior. Such a behavior was described so that anyone could perform it from the written description. Contract negotiators were reminded that the negotiation process needed to be honest, open, and free from coercion. Agreements, compromises and counterproposals were made. Both parties were active participants in the procedure and both were made to perceive the advantages of the contracting system over the present method.

3. Privileges and sanctions were stipulated regarding goal

behaviors. Reinforcers for accomplishing goal behaviors were chosen from a list of commonly values rewards. They took into consideration the age interests of the children and the type of behaviors being stipulated in the contracts. Reinforcers are considered to be events that increase the probability of a behavior occurring more frequently in the future. This is through a process of giving a privilege or removing an adverse circumstance. A list of sample rewards offered were discussed by all parties involved; such reinforcers as time alone, special trips, freedom from chores, money, and transportation. Other reinforcers were available, if so desired.

Sanctions, or consequences, were also decided upon for contract violations. They served to decrease the occurrence of the behavior in the future. Distinct responsibilities and penalties were set for breaches of contract. In developing consequences, consideration was made of (a) the relevance of the consequence to the behavior violation, (b) feasibility, and (c) the helpfulness to learning the goal behavior. Samples of consequences were extra work and time out. One privilege and one sanction were stipulated for each contract behavior recorded.

4. Development of contracts. The house parent and each child, with the help of the researcher, selected two goals or expectations for the child's behavior, one goal being developed from each of the selected categories. (The term 'goals' was used instead of 'problems' as a fostering of learning theory principles (Homme et al., 1970). A 'here and now' approach was used in that there was no accusations or fault-finding for past behavior. Goals were specified for measurable behaviors and standards for performance were given. The stipulated

privilege and sanction were also recorded for each behavior. The frequency, nature, and degree of action (for goal behaviors, reinforcers, and sanctions) were recorded. For the finished contract, it was also specified when, where, how often, and who was to judge compliance to the terms of the contract.

5. Reinforcement procedures. Immediate reinforcement was provided by giving a star on the chart for the behavior and giving verbal praise. If goals were unmet, the house parent stated that the conditions were not met and that the youth was to receive a check mark. No other negative messages were given. The stipulated reinforcers and sanctions for performance/nonperformance of behaviors were given according to the scheduled agreement on the contracts.

6. Implementation and evaluation of the contract. Contracts were completed for the two selected goal behaviors for each child and the reinforcers and sanctions stipulated for each contract. Contracts were stated in an 'If ..., then ...' format. Each contract was reviewed and clarified, if necessary, after the negotiation process was completed. Then each of the participants signed the completed contract, which signified that they understood it and agreed to abide by it. The stress was put on the positive actions desired rather than the negative behavior to be avoided. After being signed, contracts were posted and the frequency or occurrence of the goal behavior was then tallied.

#### Design of the Study

This study was based on quasi-experimental research methodology due to sampling based on the use of intact groups. This sampling technique did not necessarily limit the findings of the study. As

Isaac and Michael (1981) state, there is a need for more emphasis to be put on individual differences and reactions to different stimuli. Too much reliance has been placed on formal statistical controls and randomization and too little emphasis on individualization. This study centered on reaction principles of persons of particular types; these different types stemmed from their different orientation regarding locus of control.

The design implemented was a between subjects design, as each subject served in only one condition. Subjects were initially categorized into locus of control groups as determined by their scores on the Nowicki-Strickland Locus of Control Scale for Children. Means and standard deviations for the scores were computed for the subjects. Previous studies have indicated a comparable mean of 15 (Ollendick et al., 1980). Subjects were assigned to the internal group when they scored below the mean and to the external group when they scored above the mean.

#### Data Collection

As noted previously, the Nowicki-Strickland scale was initially administered on a group basis to the subjects by the researcher. The researcher read each of the 40 items twice and the subjects were then asked to check the correct yes or no response. Responses were scored by the data provided by Nowicki and Strickland. The youths subsequently were assigned to either the internal or external locus of control groups based on their scores.

In devising the behavior contracts, the researcher acted as the mediator between each youth and the house parent. Each youth was

provided with two lists; one list concerned possible problematic behaviors and the other listed potential reinforcers. From these lists, target behaviors and reinforcers were chosen. Other behaviors and reinforcers not listed could be chosen for contracting procedures, if so desired. House parents chose the sanctions that were imposed. The house parent and the researcher had the final decision on behaviors and reinforcers that were chosen. There were three persons responsible for implementing the contracts; the boys' house parent, the girls' house parent, and a person that works both sides. These persons were chosen as they were in charge of the day-to-day management of the childrens' behavior. They were responsible for recording behaviors and dispensing reinforcers.

Contracts for each resident centered on two goal behaviors, each operationally defined. Contracts were devised following the steps listed under Materials and Instrumentation. To prevent experimenter bias, the researcher was responsible for testing procedures, using the Nowicki-Strickland scale, and the house parents were responsible for contract implementation.

Contracts were written in a chart format and were posted in the outer living area of the dorms. Stipulated on the contracts were (a) the dates that the agreement had begun and ended, (b) the behaviors stipulated to be changed, (c) the reinforcer to be used and the amount of it, (d) the schedule of delivery for the reinforcer, (e) statement of sanctions for nonperformance of behavior, and (f) signatures of all involved parties; youths, house parents, and researcher (DeRisi & Butz, 1975). For the contract developed, the house parent put stars when a goal or target behavior had occurred and check marks on the chart

when the problematic behavior occurred instead of the target behavior. The stipulated rewards and sanctions were given as provided for and scheduled for on the individual contracts.

Contracts were implemented for a three week time span. Previous to contract implementation, data were gathered for one week as a baseline occurrence of problematic behavior. Data were also gathered for one week after contract implementation had occurred to note if changes in behavior had endured. The complete study was run from April 11, 1988 to May 13, 1988.

Data were recorded for the hours after returning home from school until their bedtimes and also the hours between their awakening in the mornings and going to school. Data were gathered on weekdays as the children were often on out-of-home visits on the weekends. The researcher collected data from the house parents on a weekly basis. Data were score data, derived from the number of occurrences of targeted behaviors out of all possibilities for their occurrence. Under such conditions, each subject's score could be compared with every other subject's score.

#### Data Analysis

The type of statistical analysis that was chosen depended on the kind of data gathered from the dependent variable, the design, and the number of independent variables and the levels (Linton & Gallo, 1975). For the research procedure used in this study, the statistical technique needed was a t test. The t test analyzes for differences between groups and is appropriate for use with score data. It is appropriate for use with small samples (Isaac & Michael, 1981) and may be



used for an unequal number of subjects in treatment conditions. The t test was also used as there was only one independent variable with two levels; youths designated as having an internal or external locus of control.

The design used in this study also met the assumptions for the fixed effect model (Linton & Gallo, 1975). For this model, the levels of locus of control were based on arbitrary criterion. These levels had been specified by previous research and generalized to subjects at only these particularly chosen levels of the independent variable.

The results from the t test analysis indicated the probability of the obtained sample values occurring if the null hypothesis were true. If the probability were low, one would be justified in rejecting the null hypothesis and accepting the alternative hypothesis. The alternative hypothesis was that the locus of control orientation effected adherence to the behavioral contracts.

Descriptions of the t test technique, the formulas, and computation process used were taken from Linton and Gallo (1975). Two t test analyses were run for all subjects. One t test compared contract behaviors for chores, while a separate t test was performed for contract behaviors concerning home rules.

A further measure would be necessary if the results of the t test were significant. This statistical measure was a strength of association or an indication of how much of the variance in the dependent variable was due to the independent variable (Linton & Gallo, 1975). When a t test is performed, an often used strength of association measure is eta squared. Descriptions of the eta squared technique, the formula, and computation process were taken from Linton and Gallo (1975). Once

the t test and the eta squared test were performed, one was able to answer the question of whether locus of control effects adherence to behavioral contracts and if so, what locus of control orientation was more strongly related to adherence to contracts.

## CHAPTER 3

### Results

The purpose of this study was to point out how the acquisition of appropriate behavior could be related to a specific behavioral technique such as contracting. In turn, it attempted to relate these increases in appropriate behavior to a person's locus of control orientation. The premise was that persons with an internal locus of control would perform the stipulated contract behaviors at a significantly higher rate than the external group.

Results from the Nowicki-Strickland Locus of Control Scale for Children were used to categorize the subjects as having an internal or external locus of control orientation. The procedures for devising, implementing, and collecting data for the contracts were followed as stated in Chapter 2. Score data derived from the number of occurrences of appropriate behavior were analyzed by use of the t test.

#### Characteristics of the Study Sample

The sample consisted of 12 females and 12 males placed in a group home facility for neglected and abused youths. The youths ranged in age from 9 to 17. All subjects in the sample completed the study.

As stated, the Nowicki-Strickland Scale was used to categorize the subjects as to locus of control. The mean test score for the sample was 18.33, the standard deviation was 3.82. As the test was keyed in an external direction, those scoring above the mean were categorized as externals, while those scoring below the mean were internals. Previous studies indicated a mean of 15.8 with a standard deviation of

3.34 (Ollendick et al., 1980). Thus the current study sample tends to be more externally oriented. This is also true in comparison to the standardization sample reported by Nowicki and Strickland (1973). Also it should be noted that the scores for the internal sample in this study more approximated the scores of intermediate locus of control groups in other studies (Ollendick et al., 1980). There were 13 youths in the external sample. Their range of scores was 19 to 24, the mean being 21.38 with a standard deviation of 3.09. The internal sample contained 11 youths. Their scores ranged from 12 to 18, the mean score being 14.73 with a standard deviation of 3.1

#### Analysis of Data

As stated in Chapter 2, contracting centered on two goal behaviors. The first contract concerned home rules while the second stipulated behaviors regarding chores. Behaviors were recorded on a chart format, stars given when appropriate behaviors occurred and check marks when the problematic behaviors occurred. Data were score data, derived from the tally of occurrences of appropriate behavior. The differences between the group means were than analyzed by statistical means of a t test. The study lasted five weeks. Week one was designated for gathering baseline data, three weeks for treatment, and the last week constituted the post-treatment phase.

#### Hypothesis one (Null form)

There were no significant differences between neglected and abused youths and their adherence to behavior contracts concerning home rules, as measured by their internal or external locus of control orientation.

The value of t was 2.02 when computed for the total scores of

occurrences of appropriate behavior for the five weeks. (Critical  $t = 2.074$ ,  $\alpha = .05$ ,  $df = 22$ ). This indicates that the differences between the locus of control groups were not significant and therefore the null hypothesis was not rejected.

A  $t$  value was also computed for the three weeks of treatment for contracts concerning home rules. The value of  $t$  was 1.61. (Critical  $t = 2.074$ ,  $\alpha = .05$ ,  $df = 22$ ). This indicates that the differences in appropriate behavior between the two locus of control groups were not significant for the treatment phase.

The differences between the two groups seemed to occur at the post-treatment phase. The  $t$  value computed at this phase was 2.87. This represents a statistical significance between the two locus of control groups and their adherence to specific contracts. (Critical  $t = 2.074$ ,  $\alpha = .05$ ,  $df = 22$ ).

#### Hypothesis two (Null form)

There were no significant differences between neglected and abused youths adherence to behavior contracts concerning chores, regardless of their internal or external locus of control orientation.

The computed value for  $t$  concerning chores for the scores for the five weeks was .54. (Critical  $t = 2.074$ ,  $\alpha = .05$ ,  $df = 22$ ). As .54 is less than 2.074, the differences between the internal and external locus of control groups were not significant. Therefore, the null hypothesis was not rejected.

The computed  $t$  value for appropriate behavior scores for the three weeks of treatment was .59. As .59 is less than 2.074, the differences

in appropriate behavior between the two groups were not significant.

### Descriptive Statistics

All phases of the research project (baseline, treatment, and post-treatment) were examined by percentage comparisons. The results for the percentages of appropriate behavior at each phase for both internals and externals are presented in Tables 1 and 2. As noted, there were no statistically significant differences between groups at any phase for either type of contract, with the exception of post-treatment for contracts concerning home rules. The percentages of appropriate behavior, though, did indicate that internals performed the stipulated behaviors at a higher rate than the externals. The percentage differences were less, though, for the contract behaviors concerning chores. The percentage of appropriate behavior for both groups did increase from the baseline phase to post-treatment.

For contracts concerning home rules, the internal group showed a large increase in appropriate behaviors from the baseline to week one of treatment and then leveled out (See Table 1). The post-treatment phase did not indicate much of a percentage drop from the treatment phase. For the external group, again, there was a great percentage increase from the baseline phase to week one of treatment. The occurrences of appropriate behavior held rather consistent during treatment but then during post-treatment dropped closer to the level of baseline.

Table 1

Percentages of Appropriate Behavior as Related to Locus of Control  
for Contracts Concerning Home Rules

Phase of the study	Locus of control	
	Internal	External
Baseline	29	26
Treatment (week one)	86	68
Treatment (week two)	81	70
Treatment (week three)	73	53
Post-treatment	75	38

For the contracts concerning chores, again, the internal group showed a great percentage increase in appropriate behavior from the baseline to the first week of treatment. During the treatment phase, percentages remained comparable. The post-treatment phase was also at the same percentage level as the treatment phase (See Table 2).

For the external group, for contracts concerning chores, the table also points out an initial percentage jump in appropriate behaviors (See Table 2). Treatment effects seemed to stabilize during the treatment phase. Post-treatment indicated behavioral levels still at a higher percentage than baseline.

Table 2

Percentages of Appropriate Behavior as Related to Locus of Control  
for Contracts Concerning Chores

Phase of the study	Locus of control	
	Internal	External
Baseline	42	41
Treatment (week one)	81	76
Treatment (week two)	79	75
Treatment (week three)	73	65
Post-treatment	72	65

In summary, although the results for this study were not statistically significant, the data do seem to point to the idea that behavior contracts do bring about increases in appropriate behavior. It would also seem that these increases are influenced, at least partially, by one's locus of control orientation. The data indicated that internals performed a higher percentage of the stipulated behaviors.



## CHAPTER 4

### Discussion

This study was based on the premise that behavioral contracting would lead to improvements in the behavioral objectives chosen for youth placed in a group home facility. Specifically, this study was concerned with whether or not resulting behavioral improvements differed depending on one's locus of control. It was perceived that the internal reinforcement group would perform the behaviors at a significantly higher rate than the external group. This premise was not supported as there was no difference found statistically between the locus of control groups and their adherence to behavioral contracts.

#### Implications of the Study

As stated, neither of the null hypotheses was rejected. There were, though, several important factors that need to be discussed as they apply to the significance of this study. For instance, the statistical analysis for contract behaviors concerning home rules did approach significance. Also, it was indicated through percentage analysis that behavior contracts did result in improvements for behavior for both groups. The exception, though, was that treatment effects did not persist for the external group concerning contracts for home rules.

The percentage analysis also indicated that the internal group performed a higher percentage of the appropriate behaviors than the external group did in all phases of the study and for both types of contracts. These results tend to lend support to the initial premise that behavior contracting brings about improvements in behavior and that the

internal locus of control group performed the behaviors at a higher rate.

The reason that the results were not statistically significant could be explained by an idea pointed out earlier. This was that the internal classification of subjects in this study were comparable to the intermediate locus of control classification in other studies, according to their scores from testing. This study, then, may have been comparing persons with an external locus of control to those having an intermediate locus of control. Therefore, the differences between groups pointed in the prescribed direction but did not reach statistical significance.

It should also be remembered that a person's behavior is under multiple contingency control. It may not be possible for every contract to meet with success as there are so many factors that come into play when one considers fulfilling contractual responsibilities (Johnston, 1983). For example, the person may have perceived that it would be more rewarding to not do his or her chore because of present circumstances, regardless of the consequences. (This could be watching a special t.v. program instead of doing chores).

A third consideration concerns the process of contracting in itself. Stuart and Lott (1972) concluded that the success of contracts may be related to the method of intervention used by the mediator instead of related to characteristics of the subjects. The differences may be associated with the experience and skills of the mediator and his or her ability to relate to and influence specific subjects. In other words, the house parents may have had a better working relationship with some youth. These youth in turn may have adhered better to their

contracts. From following Stuart's and Lott's reasoning, it could be deduced that person variables, such as locus of control, may not be related to the effectiveness of contracting procedures. This is a question unanswered due to the questioned significance of Stuart and Lott's (1972) investigation. The point made, though, is worth consideration. The following section will go further into comparing previous studies and their relationship to this study.

#### Relationship to the Literature Review

This study did not indicate a statistically significant difference between locus of control groups and their adherence to behavior contracts. There were two studies noted concerning locus of control and its effect on contracting procedures. Gundel (1978) supported the current studies findings as he did not find a statistical difference between locus of control groups and responses to contracting. Ollendick et al. (1980) indicated a contrary finding. Behavior change was more significant for the internals but a token economy was used in addition to contracting.

Studies involving contracting without a corresponding interest in locus of control were also examined for their applicability to this study. Many of the studies did note that problematic behaviors had decreased through the use of contracting (Blechman, Olson, Schornagel, Halsdorf, & Turner, 1976; DeRisi & Butz, 1975). These projects were case studies and as such are important as preliminary investigations but because of the emphasis on the single case, are not always applicable to a larger population. Several studies were included that indicated improved behavior but they did not provide statistical analysis of the data (Bardill, 1977; DeRisi & Butz, 1975; Douds et al., 1977; Janzen & Love, 1977). This is seen as supportive of the current study as

percentage analysis did indicate improvements in behavior.

Several studies used a composite of methods that included behavior contracting (Alexander & Parsons, 1973; Besalel & Azrin, 1981; Klein, Alexander, & Parsons, 1977; Ollendick et al., 1980). As these studies used multiple components, it is unknown what procedure or combination of procedures was responsible for the change. One study did not find contracting effective when dealing with curfew violations and school attendance (Weathers & Liberman, 1975).

From the current study and the review of previous studies, it is difficult to draw concise conclusions about the effects of behavior contracts and the importance of locus of control. As noted, previous studies indicated some flaws in methodology and statistical analysis. It does seem, though, that contracting can be an effective device to change behavior. Contracting may need to be combined with other methods, though, to have significant results. Behavior contracting may only be appropriate for use with specific behaviors. It may only be applicable to subjects with certain characteristics. The percentage analysis for this study did indicate that locus of control, one of those subject characteristics, may play a minor role in behavioral improvements. Further studies are necessary to indicate exactly how big a part locus of control and other characteristics of the subjects play in behavior change.

#### Limitations

One of the major limitations of this study concerned the area of methodology. Methodological concerns were (a) the small sample, (b) the skewedness of the locus of control in an internal direction, as

compared to other studies, (c) the short duration of the experiment, and (d) the classification of behaviors, necessarily limited in frequency for comparison purposes.

There were also extraneous factors that were not controlled for that may have effected the study. These were such things as illnesses or appointments that kept the children from completing their contracts. This would not have significantly effected the results but may have as one internal subject missed completing contracts five times because of such factors. Also one of the subjects from the external group was required to visit a prospective family for the last two weeks of the experiment. Visitation occurred regardless of her performance on her contract. This effected both the perceived reinforcement and sanction value of the contracts. Also several children ended up leaving the facility shortly after the study because of the frequency of inappropriate behaviors. Those that left were two subjects from the external locus of control group.

Other problems arose with individual children that complicated the contracting process. For instance, one of the external subjects was having difficulty getting along with her mother, which may have negated visiting her mother as an effective reinforcer. She did not complete her contract for any phases of the experiment.

Some problems were also not as severe as others at baseline. This problem may center around two different reasons for placement of children; those being placed because of their parents problems and those placed because of their own problems. These different reasons for placement may have effected the adherence to contracts.

Some problems seem to be inherent because of the institutional

setting. These problems tend to center around the inconsistency of staff and shift work. Along those lines, there were also no reliability checks made on accuracy of record keeping. Interobserver reliability was not used.

### Recommendations for Further Study

1. Replication of this study making improvements in methodology. This could include a larger sample representing a broader spectrum for locus of control, longer duration of experiment, different behavior categories, and use of interobserver reliability. Behavior change could also be related to the behavior of a norm group.
2. Other studies could be done using multiple treatments, including contracting, but with measurement devices incorporated to indicate which method was effective for behavior change.
3. Studies could be done based on subdivision of the population, such as whether placement occurred because of parental problems or because of their own behavior problems. If placement was brought about because of factors external to themselves, they may be less compliant to a behavior change implementation process.
4. Behavior contracting could be studied in relationship to some other personality characteristic, further describing the population for which contracting would be effective.
5. A study comparing an experimental group, who receive treatment through the contracting process, to a norm group. Many of the studies that have used a norm group have used multiple treatments and the procedure or combination of procedures responsible for outcome are generally unknown.

### Conclusions

This study did not statistically support the premise that behavioral improvements, through contracting, could be related to a person's locus of control orientation. As noted, the findings may have been related to the skewed test scores in the internal direction.

Percentage analysis of the data did indicate that behavioral improvements occurred for both groups for the contracting procedure. Also, the internal group performed the contracted behaviors at a higher rate than the externals.

It would seem that contracting could have some advantages if it leads to improvements in behavior. It is simple, inexpensive, and places constraints for unrealistic expectations for total change in behavior. It teaches internalization of values, delay of gratification, and shows that one's behavior has consequences. The style of contracts is also less threatening than other forms of therapy as it relies on lower levels of self-disclosure and limited social skills (Blechman, 1974). Dealing with adolescents may also call for special measures as they are just developing a self identity. Contracting can be helpful in this situation.

Contracting contains all the ingredients for a good program. It is consistent, provides clear expectations, and changes the emphasis for appropriate behavior from punishments to rewards (Douds et al., 1977). It provides an action-oriented structure for persons to change and provides a programmed direction.

For these reasons, contracting may have a place in our therapeutic endeavors. More research is necessary to discern if contracts are more effective just as a supplement to other methods. Research also needs to identify the type of persons for which contracts may be more effective.

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APPENDIX A

CONSENT FORM

I voluntarily agree to participate in this behavior contracting exercise to change some of my problem behaviors. I understand that this is being used on an experimental basis, as part of the structure of the Home. I agree that the contracts used do not violate any state regulations and I do not consider them harmful in any way to myself. The behavior contracting process was clearly explained to me. I agree that I helped pick the behaviors to be worked on and the resulting rewards and punishments.

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## APPENDIX B

## NOWICKI-STRICKLAND LOCUS OF CONTROL SCALE

Do you believe that most problems will solve themselves if you just don't fool with them?  Yes  No

Do you believe that you can stop yourself from catching a cold?  Yes  No

Are some kids just born lucky?  Yes  No

Most of the time do you feel that getting good grades means a great deal to you?  Yes  No

Are you often blamed for things that just aren't your fault?  Yes  No

Do you believe that if somebody studies hard enough he or she can pass any subject?  Yes  No

Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?  Yes  No

Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?  Yes  No

Do you feel that most of the time parents listen to what their children have to say?  Yes  No

Do you believe that wishing can make good things happen?  Yes  No

When you get punished does it usually seem its for no good reason at all?  Yes  No

Most of the time do you find it hard to change a friend's (mind) opinion?  Yes  No

Do you think that cheering more than luck helps a team to win?  Yes  No

Do you feel that it's nearly impossible to change your parent's mind about anything?  Yes  No

Do you believe that your parents should allow you to make most of your own decisions?  Yes  No

Do you feel that when you do something wrong there's very little you can do to make it right?  Yes  No

Do you believe that most kids are just born good at sports?  Yes  No

Are most of the other kids your age stronger than you are?  Yes  No

Do you feel that one of the best ways to handle most problems is just not to think about them?  Yes  No

Do you feel that you have a lot of choice in deciding who your friends are?  Yes  No



- If you find a four leaf clover do you believe that it might bring you good luck?     Yes     No
- Do you often feel that whether you do your homework has much to do with what kind of grades you get?     Yes     No
- Do you feel that when a kid your age decides to hit you, there's little you can do to stop him or her?     Yes     No
- Have you ever had a good luck charm?     Yes     No
- Do you believe that whether or not people like you depends on how you act?     Yes     No
- Will your parents usually help you if you ask them to?     Yes     No
- Have you felt that when people were mean to you it was usually for no reason at all?     Yes     No
- Most of the time, do you feel that you can change what might happen tomorrow by what you do today?     Yes     No
- Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?     Yes     No
- Do you think that kids can get their own way if they just keep trying?     Yes     No
- Most of the time do you find it useless to try to get your own way at home?     Yes     No
- Do you feel that when good things happen they happen because of hard work?     Yes     No
- Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?     Yes     No
- Do you feel that it's easy to get friends to do what you want them to?     Yes     No
- Do you usually feel that you have little to say about what you get to eat at home?     Yes     No
- Do you feel that when someone doesn't like you there's little you can do about it?     Yes     No
- Do you usually feel that it's almost useless to try in school because most other children are just plain smarter than you are?     Yes     No
- Are you the kind of person who believes that planning ahead makes things turn out better?     Yes     No
- Most of the time, do you feel that you have little to say about what your family decides to do?     Yes     No
- Do you think it's better to be smart than to be lucky?     Yes     No

APPENDIX C

LISTS FOR CONTRACT BEHAVIORS, REINFORCERS, AND SANCTIONS

List of Inappropriate Behaviors (Home rules)

1. Not going to bed when you are supposed to or getting up immediately first time when you are called in the mornings.
2. Not being where you are supposed to be.
3. Running in the house (to supper, to tutoring, etc.)
4. Not doing as staff asks the first time.
5. Not completing homework assignments.
6. Inappropriate behavior in study hall or tutoring.
7. Use of profanity or lingo talk.
8. Not having a clean, neat appearance.
9. Inappropriate table manners.
10. Bothering others things or going into their area.
11. Being verbally aggressive with peers.
12. Being physically aggressive with peers.
13. Calling each other names.
14. Complaining.
15. Inappropriate behavior at the bus stop.
16. Inappropriate phone conversations.
17. Interrupting staff when talking to another child or adult.
18. Not doing what you are required to do medically (exercises, keeping charts).
19. Not wearing glasses or caring for them appropriately.
20. Telling others what to do.
21. Yelling, being loud.

Chores List (Problem behaviors)

1. Not doing your daily job satisfactorily.
2. Not keeping your area clean without being told.
3. Not going to work (maintenance or kitchen) without being told.
4. Not working while doing maintenance or kitchen duty.

List of Possible Rewards

1. Go out for ice cream or other food item.
2. Get a pop.
3. Later bedtime.
4. Pick out a toy downstairs.
5. Pick out a dinner menu.
6. Watch a movie.
7. Go on an activity of your choice.
8. Get off a day of grounding.
9. Transportation to some place.
10. Don't have to do your job for a day.
11. Go out for the day with a hostess family.
12. Have a friend over.
13. Music privileges.

List of Punishments

1. Loss of phone privileges.
2. Loss of t.v. privileges.
3. Extra work.
4. Can't go out for the weekend.
5. Can't go on the weekend recreational activity.
6. Early bedtime.
7. Loss of music privileges.