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ABSTRACT

The behavior modification literature dealing with parent-child interaction has focused on training parents to modify their children's behavior. However, there is ample data which demonstrates that in ongoing social interactions between parents and children, children and parents control the behavior of one another. The viewpoint is offered that a reciprocal relationship between parent and child behavior exists and that behavior intervention strategies should recognize this fact. The present paper focuses on the child's role in determining parent behavior. Available data concerning attempts to train children to modify parent behavior are summarized. (Author)

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Modification of Family Interaction with the Child as the  
Behavior-Change Agent<sup>1</sup>

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Studies of behavior modification and analysis in home settings have proliferated in recent years. Much of this work has been concerned with demonstrating that a behavioral approach to family problems is both feasible and effective (e.g. Bernal, 1971; Patterson, Cobb and Ray, 1973), while some of it has dealt specifically with the effects of a variable (e.g., Christophersen, et al., 1972; Herbert, et al., 1973) or the validation of a particular approach to family intervention (e.g., the work of Patterson and his associates). It is not within the scope of this paper to review the literature on the topic of behavior modification in the home. Rather, the objective is to discuss, and present data on, what has been a neglected variable in this area of research — the child. Any attempt to understand the interactions that occur in families must include the contributions of the child to the development and maintenance of those interactions. This view, of course, has important implications for those who design behavior-change strategies.

The remainder of this paper is divided into two sections. In the first, evidence is provided which supports the statement

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that a child can and does play an important role in determining his parents' behavior. In the second section, available data concerning attempts to train children to modify parent behavior are presented and discussed.

### The Child's Role in Family Interaction

On a common sense level, nearly all would agree that a child controls his parents' behavior through the presentation of antecedent and consequent stimuli contingent upon certain parent behaviors (cf. Patterson, 1971, 52-53, 79). For example, Seymour wants to stay up past 9:00, his prescribed bedtime. When put to bed he begins to cry feverishly (aversive antecedent stimulus). His father ignores him for a while but finally tells him to be quiet. Seymour does not comply, and after several minutes of crying and yelling his father permits him to stay up for another half hour. Seymour stops crying and the father has been negatively reinforced for emitting the behavior which terminated the aversive antecedent event. The reciprocal nature of this hypothetical situation is obvious--Seymour's and his father's behavior have been altered as a result of their interaction. A plethora of other examples could be described. However, no purpose is served in relying on such cases when a literature exists which supports the thesis offered in this paper.

The areas drawn upon are diverse, including theories of socialization, observational research and scattered behavior modification papers.

The traditional view of parent-child interactions has been that the child is a tabula rasa upon which his parents write. Lytton (1971) pointed out that "studies of parent-child interaction have in the past usually been based on the assumption that parents' behavior is the antecedent and children's personality the consequent..." (679). Similarly, Bell (1971) stated that "most investigators have only considered the child an object on which parental actions are registered, rather than a participant in a social system, stimulating as well as being stimulated by the other" (63). Gerwitz (1961), Stott (1966), Wenar and Wenar (1963),<sup>and</sup> Kogan, et al. (1966, 1969) have made similar statements. Although these writers have been largely concerned with the development of social behaviors in families containing young children or infants, their comments are relevant nonetheless.

Contrary to the traditional view, each of the above writers believes that a reciprocal relationship accurately describes the nature of family behavior patterns. Lytton (1971) concluded that the traditional model of socialization is too

narrow and needs to include the contribution to the family system made by the child. An example of the limitations of the traditional model will cement Lytton's point. Bell (1968) has pointed out that most parent-child research has involved correlations between parent and child characteristics. However, a correlation coefficient provides no information about the direction of the socialization effect. Bell suggested that researchers have found it more parsimonious to interpret these correlations as reflecting a parent-to-child effect. Contrary to this position, much of the extant literature may be interpreted in terms of child effects on parents. It should be noted that there is a difficulty in verifying or disproving Bell's contention when most of the research is correlational. An alternative would involve the manipulation of some aspect of a child's behavior to determine its effect on parental behavior. In the current literature, the child's behavior is seldom the independent variable, the parent's behavior the dependent variable. An exception to this general neglect concerns some data analyzed by Bell (1971). He demonstrated the role that young childrens' smiles and vocalizations played in determining their mothers' interactions with them.

Bell's (1971) model of family interaction is bi-directional. It attempts to explain interactions in terms of stimulus effects

of all participants constituting a social system. A similar model of dyadic interaction has been developed by Patterson and Reid (1970). They state that "'Reciprocity' describes dyadic interaction in which the persons A and B reinforce each other, at an equitable rate. In this interaction, positive reinforcers maintain the behavior of both persons. 'Coercion'... refers to interaction in which aversive stimuli control the behavior of one person and positive reinforcers maintain the behavior of the other" (133). It is clear that the coercion hypothesis describes what was occurring in the situation presented at the beginning of this section. The child's mand was positively reinforced when the father said that he could stay awake for another half hour. In addition, the father's compliant response terminated an aversive event, namely, crying. Patterson and Reid's model has sufficient generality to provide for fuller analyses of most, if not all, family interactions. These analyses should lead behavior modifiers in the direction of developing more comprehensive home intervention programs, programs which include the child as a change agent. Although some workers have used children to change parent behavior, the available reports are generally of a non-experimental nature so that it is difficult to assess the effectiveness of these efforts (see below).

Further support for the "reciprocal" view of family interaction comes from observational research. Kogan, Wimberger, and Bobbitt

(1969) made sequential observations of mother-child interaction patterns. This experimental approach permitted the authors to determine what mother and child behaviors occurred concurrently. Based on this kind of analysis it follows that a behavior modifier may be able to alter parent target behaviors by training a child to emit a behavior other than the one which was correlated with a parent target behavior. Larson(1973) collected some preliminary data using a similar approach. Multiple measurements of parent (as well as child) behaviors were made. A record was also kept of what antecedent and consequent events were correlated with the occurrence of particular behaviors. It is only one step further to attempt to change a behavior by altering antecedents and consequences. This type of methodology has been more fully developed by Ray and his associates(e.g., Ray and Ray, 1972). Their model provides a powerful tool to the behavior modifier in his attempt to understand a family network and, if necessary, to produce changes in it.

In summary, both common sense and a substantial body of research indicate that parents and children control the behavior of one another. Heretofore, behavior modifiers have stressed the parents' role in shaping and maintaining their childrens' behavior, and published papers reflect this fact. There have been, however, several efforts to train children to modify parent behavior.

The discussion in the following section summarizes that work and, hopefully, will serve as an impetus for further systematic investigation into this area of applied behavior modification.

### Training Children as Change Agents

There is an experimental literature on the use of children as behavior modifiers. Surratt, Ulrich and Hawkins (1969) showed that a fifth grade student successfully engineered change in four fourth graders. Likewise, Winett, et al. (1970) used second grade students to dispense tokens to peers when the teacher was occupied elsewhere. Farris, Kent and Henderson (1968) have demonstrated that students between the ages of eight and twelve were successfully taught principles of behavior in an academic classroom. In an institutional setting for delinquents, Buehler, Patterson and Furniss (1966) recognized that it was not a question of whether the children influenced each other's behavior. Rather, the issue was one of finding ways of structuring the interpersonal environment so that the influence was beneficial to the members of the institution. Thus, from the above examples, children have been successfully taught to alter the behavior of others. The remainder of this paper will focus on work which bears directly on its theme—child-directed behavior change of parents.



Alvord (1973) published a manual for parents which described a home-based token system for the whole family. A section on "Child Manages Parents" is included. In the text, Alvord stated that "Parents should be included in the Home Token Economy as a means of furthering their use of the Home Token Economy and of making the children feel that the parents are also involved"(10). At this time, no experimental evidence on the Home Token Economy are known to the authors.

Patterson and Reid briefly mentioned a case in which siblings were taught to reinforce their mother for emitting operants such as smiling and laughing. Although they found that the children were initially quite mechanical in the dispensing of social reinforcers, improvements came in time. Once again, however, no experimental data were presented concerning this intervention.

A recent paper has discussed direct attempts to teach children to modify their parents' behavior (Gray, Graubard and Rosenberg, 1974). At the first contact, parents were asked to permit the authors to work with their child. The parents were not initially told that their children were to shape them. One case was described in which a girl's mother was not consistent in having meals on time nor did she wash

and iron clothes. The girl was trained to shape these behaviors through the administration of contingent consequences. The new gains maintained over a more than one year follow-up. Data were not presented on this case.

The present authors have been studying methods of training children to modify parent behavior. The ultimate objective is to develop behavior-change strategies which include all family members. However, until sufficient data are collected on child-directed programs the focus will remain limited. The emphasis of the discussion is on method. The data gathered to date are still preliminary. Those, and new, data will be made public after an entire replication of the procedures has been carried out. Also, a reliability study of trained home observers and of child-monitored observations will be made.

Children have become involved in the project as a result of initial contact with parents. The parents are told that the therapists will be working with the children. Table 1 summarizes the sequence followed in developing a typical program. A program for altering parent behavior is developed only if indicated by the information obtained from the initial phases of the program.

Information concerning the nature of family interactions

is initially obtained from behavior checklists administered to parents and children and from verbal reports. More specific data are subsequently collected by home observations. Based on these combined sources parent target behaviors are selected. The intervention phase involves giving the children instructions to carry out while at home. Continued home observations by trained observers and the children determine the effectiveness of a program.

For experimental purposes, a multiple baseline design is employed. The frequency of several parent target behaviors are measured, with a contingency being applied to each at different points in time. If the behaviors change in rate after consequences have been applied to them, that is support for the effectiveness of the intervention. For example, in one family two daughters (ages 12 and 13) independently recorded the frequency of three of their parents' behaviors— yelling(father), smoking(mother), and spending time with daughters(father). Over a period of eight weeks a contingency was attached to occurrence of each of these behaviors. The findings indicated some evidence that the parents' knowledge that their behavior was being recorded(contingency initiated by children) was sufficient to alter the frequency of the target behaviors.

The authors believe that the model of family interaction and the approach to family intervention discussed in this paper offer a new direction to the behavior modifier. The family is a social system, and each member of that system plays a vital part in determining the types and quality of behavior of every other member. It seems only logical to conclude that programs to restructure family interaction should include all family members, not just parents as has been generally the case.

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## Footnotes

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2. A complete analysis of the data collected from this project will be completed by July, 1974, and may be obtained from either author at that time.



Table 1

## Steps in Developing a Behavior Intervention Strategy

1. Contact with parents; they state their reasons for seeking consultation.
2. Contact with child.
3. Administration of checklists to determine type and severity of problem areas.
4. Therapists decision if child-initiated intervention is appropriate.
5. If appropriate, trained observers begin making home observations two or three times weekly.
6. Concurrent with 5., target behaviors are defined and intervention strategies are developed. This is done in a clinic setting.
7. Children are given instructions to follow-through with parent(s).
8. Modification of a program is made after observer- and child- collected data are inspected.