This study investigated the effectiveness of techniques of discipline employed by middle-class mothers to teach their children to resist a tempting forbidden object. Mothers' accuracy in describing their own behavior was also examined.

Forty-three mothers and their 18-30-month-old children were brought in pairs into a playroom which contained an object (a microphone) which mothers had been asked to keep their children from touching. The behaviors of mother and child were recorded. After 5 minutes in the room, the mother left and the child remained alone for 3 minutes, while his behavior was observed. Following the playroom experience, mothers were administered a questionnaire and their children were tested using the Peabody Picture Vocabulary Test and the Embedded Figures Test. Latency of each child's responses was timed to obtain a measure of impulsivity or reflectivity. Preliminary results showed that mothers used a variety of techniques to control their children, although "forbidding" was the most common technique used. Parental report was found to be a poor indicator of the actual type of controlling behavior used. The forbidden object was touched by nine of the 29 children who were willing to remain in the room alone when the mother left. (Author/BHT)
MATERNAL CONTROL TECHNIQUES AND RESISTANCE TO TEMPTATION IN YOUNG CHILDREN

Freda Rebelsky¹,²

Introduction

Socialization refers to the old and pervasive problem in human life: how to raise children so that they will become adequate members of the society to which they belong. Irwin Child (1954) refers to socialization as "the whole process by which an individual, born with behavioral potentialities of enormously wide range, is led to develop actual behavior which is confined within a much narrower range—the range of what is customary and acceptable for him according to the standards of his group (p. 65)." This process is, as yet, largely unclear.

Though there is wide agreement that parents are the primary socialisers, and that the socialization process begins early, there has been little empirical work focusing upon the socializing processes in parent-child interaction.

Most studies of socialization have been done with children over 4 years of age and not younger children. In addition, they have tended to rely upon parental reports of their socialization techniques (see, e.g., Sears, Maccoby and Levin, 1957; Hoffman and Saltzstein, 1967) and not upon a direct examination of their behavior.

Hess and Shipman (1965, 1967, 1968) have done one of the few studies which actually examined the mother's behavior as she taught her child new skills. However, that study, though seminal, used only Negro mothers and their 4-5 year old children.
The techniques a mother uses to train her children may be related to development in other than the "training" sense. As Heis and Shipman point out, we can ask about her teaching style--about her consistency, clarity, speed of response, verbalness, warmth, appropriateness, etc. Style may have as important effects on development as the content of the message. For example, does a mother who responds quickly to transgression have a child who develops an impulsive cognitive style (Kagan and Siegel, 1963; Kagan et al., 1964)? Does a mother who verbalizes in teaching have a more verbal child?

Aronfreed (1969), citing animal and human data, has suggested that the timing of interaction may have an effect separate from the training method. And the Sears group, in several studies, have reported effects of broad, underlying styles, such as warmth, as well as effects of more specific techniques, on the moral and social development of kindergarten children (Sears; Maccoby and Levin, 1957; Sears, Rau and Alpert, 1965).

This study is intended to be the first step in a larger study of the effects of parental socialization (content and style) on the cognitive and social development of children from one to three years of age. The focus of this present study is on the relationship between the techniques of discipline employed by mothers to teach their children and the effectiveness of these techniques. That is, we were interested in the nature of the socializing process used by mothers in attempting to teach one aspect of self-control, resistance to a tempting forbidden object. We were also interested in the mother's ability to describe her behavior, since such reports form the core of the data on socialization practices in most studies.

Although the sample consists, for this study, of middle-class mothers,
other appropriate samples for later work should include fathers and siblings, and should compare other social classes. In addition, some of the methods developed for this study could be readily transferred to the school situation, in order to understand the regulatory processes of teachers.

Questions to be answered by this study include: What techniques do middle-class mothers use most often to control their children? What techniques are most effective in making the child resist a forbidden object when the mother is not present? What techniques are most effective in controlling the child while the mother is still in the room? Do mothers in reality use techniques which they report they use?

Method

An experimental situation was constructed in which the child and mother were left in a playroom equipped with toys and an attractive forbidden object. The forbidden object, a microphone, hung from the ceiling in the center of the room within reach of the child. Because the microphone is a delicate instrument, it is clearly a forbidden object; since one of the reported aims of the project was to study verbalization, placement of the microphone was legitimized. Child and mother were left in the playroom together for a short period. Afterwards the mother was called out of the room and the child was left alone with the microphone. Effectiveness of control techniques was measured by the child's responses to the forbidden object under two conditions: when accompanied by the mother in the playroom and when alone in the playroom containing the forbidden object. Thus the following was observed: mother-child interaction with regard to the forbidden object, the child's response to the forbidden object when the mother is no longer present, and the relationship between the two situations.
Subjects

The sample consisted of 43 pairs of white, middle to upper middle class mothers and their children, 20 boys, 23 girls. The children ranged in age from 18 to 30 months. The sample was obtained, by posting notices in Harvard and MIT married students apartments, sending flyers to local day camps and pediatricians' offices, and through the recommendations of mothers who participated in the study.

Equipment

The experimental room was a rectangular playroom with a one-way observation mirror along the wall opposite the door. It was furnished with various toys selected to interest children of this age (e.g., blocks, wooden tool bench, dolls, telephone, ball, etc.). Two microphones, not apparent to the Ss, were concealed in light fixtures and connected to speakers and a tape recorder in the adjacent observation room. In the center of the playroom an inactive microphone was hung from the ceiling 2 feet from the floor, approximately at the child's eye level.

Procedure

The first verbal communication between E and S was by phone. Mothers were asked to participate in a study of children's play and vocalization. E greeted the mother and child and showed them to the playroom. Before they entered the playroom, E informed the mother that her child would be observed while they were both in the playroom and that after a few minutes E would signal the mother to leave (by opening the door and saying "O.K." ) so that the child could be observed playing alone. E also told the mother that she was free to do as she wished and that the child could play with anything he wanted. Finally, E requested that the mother not let the child
touch the microphone ("which had to be hung low in order to pick up everything the child said") since it was sensitive and expensive. Mother and child then entered the playroom and closed the door.

During the next 5 minutes behavioral observations of mother and child were made. One observer recorded "events", defined as any interaction between child and microphone, mother and microphone, or mother and child concerning the microphone. An event ended when behavior towards the microphone stopped.

Events were coded in terms of techniques used by the mother to prevent her child from touching the microphone and the child's activities regarding the microphone. The categories were as follows:

**Mother**

- **Explain** - supplying information about why the child should or should not act; or information about the microphone
- **Distract** - attempts to divert the child's attention to objects other than the microphone
- **Direct** - orders or commands the child to do something
- **Forbid** - directs the child not to do something
- **Threaten** - refers to negative consequences that will follow the child's action
- **Reject** - physically or psychologically withdraws from the child
- **Punish** - verbal scolding or physical slapping, spanking, etc.
- **Reassure** - praises the child, or otherwise shows approval of his behavior
- **Block** - places an obstacle between the forbidden object and the child
Restrain - physically prevents the child from touching the forbidden object

Child

Obey - follows mother's instructions
Disobey - does not follow the mother's instructions
Provoke - attempts to upset mother by approaching the microphone
Threaten - refers to negative consequences that will follow the mother's action
Reject - physically or psychologically withdraws from the mother
Talk - vocalization about the forbidden object
Gesture - gestures toward the forbidden object
Look - looks at the forbidden object
Approach - goes toward the forbidden object
Touch - touches the forbidden object

Coding sheets were constructed with the above categories listed in the left margin—the upper half for the mother, the lower half for the child. One event was recorded per sheet. The sheets were ruled with 10 boxes to the right of each listed item. As a particular behavior occurred, a check-mark was placed in the corresponding box. Each time an item was checked, the observer moved one box to the right on the event sheet, thus preserving sequence of behavior. When necessary, a "p" and/or "v" was placed in the box with the check-mark, indicating physical or verbal behavior. Using a stop watch and clock in the playroom, the observer also recorded the time each event began and ended in order to determine the number, spacing, and duration of events.

While one observer coded events only, another observer recorded the
child's behavior throughout this 5 minute period. The "Focus on Child" sheets were numbered from 1-30 down the left side of the sheet. The page was divided into 4 columns headed: Vocalization +,-,0; Item Played With; Play Alone or with Mother; Insecurity (specific insecurity items listed under the heading). A tape recorded voice in the observation room counted from 1-30, announcing a number every 10 seconds. The observer looked up as he heard the number, observed the child, and then recorded the following: whether or not the child vocalized (and if so, positive, negative, or neutral); the object the child was playing with (if any); whether or not the child was playing with the mother; any signs of insecurity. When an event occurred, the observer wrote "E" next to the number of the time block he was observing. A "C" for contact distance was also recorded when the child was within arm's length distance from the mother.

At the end of the 5 minute observation, E signaled the mother to leave. The event order recorded on a separate sheet the technique the mother used when leaving. The second observer recorded on a separate sheet the child's response to the mother's leaving.

When the mother left, the child was observed for 3 minutes. The event observer recorded in the appropriate block every time the child either looked at, approached, gestured toward, or touched the microphone. The other observer again recorded vocalization, play, and insecurity with the same "Focus on Child" observation sheets as used earlier.

At the end of the 3 minutes, E and mother returned to the playroom. The event observer recorded whether or not there was physical contact when the mother returned, and if so, the initiator of this contact.

At the end of the observation period, the event observer rated (on scales from 1-7) the mother's warmth, verbosity, punitiveness, comfort,
participation, and tendency to be a responder or initiator. The other observer rated the child's activity, security, verbosity, and tendency to be an initiator or responder (also on scales from 1-7).

After completing the rating scales, the observer who was going to test the child went to the playroom where E introduced him to the mother and child. The other observer, who was to time and record responses, entered the test room before the $S$s and E in order to remain as unobtrusive as possible.

The test room was equipped with a small table and chair for the child and a larger table and chairs for the mother, E, a person to administer the tests, and a person to time them. The child was seated in one corner of the room, and the mother in the opposite one. In this way, mother and child were in sight of each other, but far enough apart so as not to distract each other.

The Peabody Picture Vocabulary Test was administered to the child. Time to first response and the $S$'s responses were recorded. Then the Embedded Figures Test was given. Time to first response, time to correct response, number of incorrect responses, and whether or not the correct item was found were recorded by the timer. Latency of the child's responses were timed so that a measure of impulsivity or reflectivity (Kagan, 1963) was obtained as well as measures of perception and I.Q. vocabulary. Length of time to take each test and reason for termination were also recorded.

While the child was being tested, the mother supplied basic background information on the family and answered an oral and written questionnaire (given by E) dealing with her methods of controlling her child, including a question on how she prevented her child from touching the microphone in the playroom.
When the tests were finished, the tester returned to the playroom with the child so he could play until the mother completed the interview. While in the playroom, the tester asked the child, "Can you point to something your mommy told you not to touch?" The child's answer and behavior were recorded by the tester.

The E and the mother returned to the playroom when the mother finished the interview. Mother and child then departed.

The primary purpose of this study was to determine whether or not there is a relationship between the control techniques used by mothers and resistance to temptation in children left alone with a forbidden object. For this study data were obtained on the techniques the mothers reported using, the techniques observed during the experiment, the manner in which the techniques were used (physical or verbal), the number, length, and timing of control events, and the children's responses to different techniques. Besides correlating these results to each other, they will also be related to demographic variables such as age, sex, position in the family, and religion. Furthermore, the following on child variables obtained from the testing and observation will be related to mothers' control techniques: impulsivity-reflectivity, verbal skills, and perceptual skills, observational measures of security, amount of play and verbalization. Finally, ratings of qualities present in children and mothers will also be correlated: warmth-coldness, low-high power, responder-initiator in mothers, and activity-nonactivity and security-insecurity in children.

Results and Discussion

The following results are based on preliminary data analyses.
A "temptation situation" was successfully created, as is shown by the fact that at least one event about the microphone was recorded for 39 of the 43 subjects. There was an average of two events per subject, with an average of 12.5 seconds spent on interaction about the microphone.

The child initiated all of the interactions about the microphone. Mothers used a variety of techniques to keep their children away from the microphone, with most mothers using more than one technique. "Forbidding" was the most common technique used, at least once by 35 of the mothers. "No," "Don't touch that," were frequent responses. We were surprised to note that only 13 mothers attempted to explain to the child why he should not touch the microphone, and most of these "explanations" were low-order: correct labeling ("This is a microphone"), or incorrect labeling; to attach to a previously learned control ("This is a light")

Thus, the control techniques most mothers used in this study were what Hess and Shipman would call imperative. We saw very few examples of a cognitive appeal. This may be partially due to the mothers' views of the learning abilities of these young children, but we were surprised at the closed coding and restrictiveness of the mothers' teaching techniques about the microphone.

When mothers were asked afterwards what they had done to keep their children from touching the microphone, one-third described their method accurately, one-third described their behavior partially accurately, and one-third described their behavior inaccurately. This is additional supportive evidence for the by now familiar statement that parental report is a poor indicator of actual behavior (Robbins, 1963).

There was a relationship between the number of events and the number
of different techniques a mother attempted ($X^2 = 10.44$, lf, $p > .001$), thus suggesting that mothers do not have a single technique that they habitually use, but that their behavior is influenced by the child's persistence.

Twenty-nine of the 43 children were willing to remain in the room alone when the mother left. (We are presently looking at the relationships between the ability of the child to separate from the mother and characteristics of their interaction.) Of these 29 children, 9 touched the microphone. Several of the other children approached it and showed conflict about touching it. For example, 2 boys moved towards the microphone, looked at it, looked away, touched their penis and ran to the door calling for mother.

The nine children who touched the microphone were five girls and four boys, with no one age group predominant. They had an average number of events about the microphone, and the techniques their mothers used did not differ from those of the other 20 children who did not touch the microphone. However, it does look as if they were more likely to have mothers who inaccurately described their behavior in the playroom, and they were more secure in their play alone than were the children who resisted temptation.

Thus far we have not yet analyzed the most important aspects of maternal teaching style, such as warmth, verbalness, and speed of response. Later reports will present further analyses, but the above results have already led to an increased understanding and appreciation of the complexity of the socialization process.
Footnotes

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2. This report is based upon preliminary data analyses. Thus, we have presented little in the way of discussion. The final articles will be submitted to Child Development and Developmental Psychology.
References


Abstract

This study investigated the effects of parental socialization (content and style) on the cognitive and social development of young children by focusing on the relationship between the techniques of discipline employed by mothers to teach their children and the effectiveness of these techniques. Forty-three mothers and their 18-30 months-old children were brought in pairs into a playroom which contained an object which mothers had been asked to keep their children from touching. The behaviors of mother and child were recorded. After 5 minutes in the room, the mother left and the child remained alone for 3 minutes, while his behavior was observed. Following the playroom experience, mothers and their children were tested using a variety of scales.

Preliminary data analyses were reported.