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VERBAL CONDITIONING IN CHILDREN AS A FUNCTION OF
SEX-ROLE IDENTIFICATION, INTERNAL CONTROL,
AND NEED FOR APPROVAL

DISSERTATION
Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by
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* * * * *
The Ohio State University
1961

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CHAPTER I

INTRODUCTION

The purpose of this investigation is to study some personality characteristics of children that influence their perception of adults as having varying degrees of reinforcement value. The major characteristic to be considered is sex-role identification, which is conceptualized in terms of an individual's ego-ideal concerning a particular sex-role. A child with a strong masculine-role identification will have developed an ego-ideal which consists of a strong desire for a firm masculine identity.

A basic assumption in this study is that by the sixth year, children will have learned to value one sex-role rather than the other. Most of this learning is based on parental teaching, in which the mother probably plays a major role concerning which sex-role is preferable. Thus the male child with a firm masculine ego-ideal has probably been rewarded for behaving in a manner appropriate to his sex. This child will prefer those social objects and activities that are culturally defined as masculine. It seems reasonable to hypothesize that a child with a strong masculine ego-ideal will not only be more invested in masculine values and activities, but he will also perceive
male adults as having more reinforcement value than female adults. Furthermore, it is likely that a male adult will have more reinforcement value for a child with a strong masculine ego-ideal in contrast with a child who has failed to develop a firm preference for the male role.

The male child with a weak or inadequate masculine ego-ideal should be less attracted to a masculine role as compared with a child who has developed an appropriate ego-ideal. A weak masculine ego-ideal will be indicated by more frequent preferences for objects, activities and persons that are typically associated with the feminine role. Since female adults are associated with the sexual role which he prefers and is identified with, they will be viewed as having more reinforcement value than male adults. In addition, the reinforcement value of the female adult should be greater for the child with a weak masculine-role identification in contrast with the child whose ego-ideal is strongly masculine.

These hypotheses are, in effect, based on two major questions. Are there differences between the reinforcement values of male and female adults for a population of young boys? If so, are these sex differences related to differences in sex-role identification conceptualized in terms of a masculine or feminine ego-ideal?

The verbal conditioning paradigm is a logical situation for experimentally determining the reinforcement
value of a male and a female adult. The reinforcement value may be operationally defined in terms of the effectiveness of a social reward, such as verbal approval, upon the modification of behavior.

A child's ego-ideal concerning a particular sexual role, as indicated by the nature of his preferences for that role, should influence not only his perception of other adults, but also his sensitivity to the reinforcement of verbal content that refers to parental figures. A boy with a strong masculine ego-ideal should be more sensitive to and attracted to the term "father" than to "mother." Greater sensitivity to "mother" should be related to a weaker masculine ego-ideal. Differential sensitivity to these terms may be observed in a verbal conditioning situation by noting differences in the rate of increase of the emitted noun under conditions of positive reinforcement.

The major problems that will be investigated in this research involve the relationships between the reinforcement value associated with adult reinforcing agents, the content of the conditioned response, and children's sex-role identification which has been formulated in terms of a basically strong or weak masculine ego-ideal. Two auxiliary problems to be investigated in this study involve the relationship between the effectiveness of adult reinforcers and two other personality characteristics.
The first of these characteristics is internal control. The question is raised as to whether a child who views himself as responsible for the occurrence of reinforcing events will be more responsive to social reinforcements than a child who ascribes these events to chance, fate or other factors beyond his control. The second personality characteristic is need for approval. Will children with a strong need for approval be more responsive to social reinforcement, in the form of verbal approval, than children with a low need? These hypotheses will be further elaborated in Chapter III.
CHAPTER II

REVIEW OF THE LITERATURE

Sex-Role Identification

I Theory

Unclear conceptualizations of the term identification have resulted in a paucity of studies into its antecedent and consequent conditions. Numerous meanings have been ascribed to the concept with minimal concern for the operations necessary to test its validity. As a result, theoretical suppositions in this area have developed out of proportion to the facts. The purpose of this section is to examine various conceptualizations of identification and to arrive at an operational definition that will also have theoretical relevance.

The conceptual confusion associated with identification is exemplified by Freud's inconsistent use of the term. Typically, the same term was used to describe different processes. Identification was used to explain how the ego derived its energy. "By identifying itself with the object, it (ego) recommends itself to the id in the place of the object and seeks to attract the libido of the id on to itself" (1933, p. 107). The term was also used to explain
the internalization of parental prohibitions in the form
of the superego and the replacement of objective anxiety
with moral anxiety.

One ego becomes like another, one which
results in the first ego behaving itself in
certain respects in the same was as the second;
it imitates it, and as it were takes it into
itself. This identification has been . . .
compared with the oral cannibalistic incorpora-
tion of another person (1933, p. 86).

In order to explain feelings of worthlessness and
extreme self-criticism, Freud (1925) postulated a three-
fold developmental process. The first phase, considered
an early form of identification, involves an undifferenti-
ated fusion between ego and object. The second phase
occurs as the ego develops an object choice whereby the
libido is attached to the object. Finally, as a result of
perceived or actual removal of the object, the libido is
withdrawn into the ego, thereby establishing an identifica-
tion of the ego with the abandoned object.

Freud's distinction between identification resulting
from loss of love or from a fear of the aggressor stimu-
lated further theoretical exploration of the antecedent
conditions of identification particularly by learning
theorists. Mowrer (1954) formed a distinction between
developmental (loss of love) and defensive (fear of the
aggressor) identification. Defensive identification
results in a more stable personality change since it is
associated with conflict and the reduction of anxiety. Normally, the accepted child has become too dependent to attack or to retreat from his frustrating parents. He is forced to adopt their standards of conduct and social values. Mowrer's distinction between these two forms is not altogether clear since defensive identification is based on personality characteristics arising from developmental identification, such as dependency. Several studies (Sears, 1957; Whiting and Child, 1953) have indicated that the use of love-oriented techniques of discipline results in greater identification defined in terms of guilt or the development of conscience. Thus Mowrer's distinction appears to require revision in accordance with recent empirical investigation.

Although Mowrer agrees with Freud in his postulation of two different mechanisms of identification, they disagree on the role that sexual object choice plays in the process. For Freud, sexual object choice precedes identification, while the reverse relationship is argued by Mowrer. Freud's acknowledgment that identification normally leads to an appropriate sexual identity, and by implication, to an appropriate object choice, suggests that the difference between these theorists is one of emphasis rather than of basic disagreement.

Stoke (1953) distinguished between behavioral versus emotional identification. A positive parent-child
relationship is emphasized as necessary for the formation of a superego. Sanford (1955) agrees with Stoke's emphasis on a positive emotional tie between parent and child, but chooses to name the resulting process "introjection." Sanford's acceptance of introjection seems inconsistent with his theoretical bias toward viewing parental rewards and punishment as influencing behavior directly rather than resulting in the internalization of parental standards.

The lack of agreement concerning the meaning of identification has prompted several writers to question its meaningfulness as an explanatory construct and to suggest its abandonment. Sanford (1955) and Hill (1960) support a reductionistic approach whereby basic principles of learning would replace identification. Hill cites primary, secondary and vicarious reinforcements as the most economic explanation for the development of conscience and guilt.

Kagan (1958) hypothesized that the child identifies in order to obtain the goal states of mastery, love and affection. Subjective experiences of anxiety, loneliness and helplessness are thereby reduced. This theory indicates the meaningfulness of dealing with content as well as process variables in any conceptualization of identification.

Kagan's approach suggests that much of the ambiguity associated with the concept of identification may stem from the tendency on the part of the aforementioned theorists to
view it primarily as a process. Its operational utility may be made clearer by defining it as a product or outcome of parent-child interaction. Most investigators agree on two major outcomes: conscience and sex-typing. The latter is clearly elaborated by Freud:

A little boy will exhibit a special interest in father; he would like to grow like him and be like him. . . . He takes his father as an ideal. This behavior has nothing to do with a passive or feminine attitude . . . it is on the contrary typically masculine (1933, p. 88).

Thus, Freud clearly describes the development of a masculine ego-ideal, in the young male child, whereby masculine values and male adults are idealized and preferred to a greater degree than attitudes or figures associated with the feminine role.

Other theorists have also recognized the development of an ego-ideal that is appropriate to the child's sex as a fundamental aspect of the identification process. Sears (1957) described identification as role practice resulting in the development of social behavior appropriate to the child's own sex. Parsons (1955) discussed the outcome of identification in terms of the male child's acting out the symbolic representations of the instrumental (task-oriented) aspects of adult male roles. Thus, there is general recognition that a positive valuation of the appropriate sex-role is a significant outcome of the identification process. The failure to develop an ideal self-concept that
is based on a masculine identity is a frequent characteristic of seriously disturbed children.

II Research

The antecedent conditions of identification have been the major focus of research in this area. P. S. Sears (1951) indicated that the father's warmth determined by interview ratings, correlated with choosing the father doll, a measure of sexual identification. Similarity between responses of adolescent boys and their fathers to questionnaires constituted Payne and Mussen's (1956) operational definition of identification. Highly identified boys perceived their father as rewarding and nurturant.

Whiting (1959) has suggested that these relationships have been overly simplified and the reported correlations account for a small fraction of the variance. Whiting has tested, on a cross-cultural basis, the hypothesis that the child's "status-envy" of the father, intensified in monogamous-nuclear societies, results in stronger identification with him. It is interesting to note that Whiting's "status-envy," Kagan's "goal states" and Freud's "ego-ideal" are concepts with very similar meanings. They all refer to the child's striving to achieve those characteristics that will enable him to fulfill an adult role. Obviously, an appropriate system of sex-role preferences would be one of these characteristics.
These studies clarify as well as support, to some degree, analytic assumptions concerning the antecedents of identification. In both analytic theory and recent research, identification is conceptualized as based on (a) psychological love and (b) discipline and control by the parents. The difference lies in Freud's speculation that these two forms of identification apply to girls and boys respectively. For Sears, these forms converge and are subsumed under the name of "love-oriented" techniques of discipline. These techniques generally characterize the socialization of the female child to a greater degree than the male child, although not exclusively.

It would seem logical to hypothesize that a child who has developed a strong masculine ego-ideal will be influenced more by male adults' rewards, signs of approval and attempts to control his behavior than a child who has failed to develop a positive valuation for objects, values and persons associated with the male role. It is probable that the former child will perceive social approval by a male adult as more salient. Thus, identification, conceived in terms of a preference for a specific sexual role, may be viewed as an independent variable related to the effectiveness of social reinforcers, such as verbal approval.

The relationship between identification and subsequent conditions of learning has received minimal attention in the
literature. However, the potential meaningfulness of experimentally studying the influence of identification upon the effectiveness of a social reinforcer is implied in several studies. As a post-hoc explanation for a curvilinear relationship between frustration of a need and degree of activity to reduce that need, Sears concluded:

... if the girls are more strongly identified with their mothers ... the girls would thus receive more punishment from a given degree of punitiveness. They would suffer not only the actual amount ... but added to this would be a greater degree of self punishment deriving from their greater identification (1953, p. 199).

The authors point out that in a similar manner, identification should serve to increase the effectiveness of a specific reward.

Cass (1957) reported a positive relationship between identification and maternal awareness of the child's responses to a questionnaire. If maternal awareness is assumed to be related to the parent's ability to supply positive reinforcements, identification may be viewed as the pathway toward obtaining and benefiting from social rewards.

The present study hypothesizes that an individual's preference for a particular sex-role will influence his perception of the reinforcement value of adults who occupy that role. Indirect justification for this statement is Shaffer's (1957) finding that female college students who
received abundant maternal gratification verbalized a preference for a female therapist, as compared with young women who received less gratification. A similar assumption for kindergarten children is supported by Rosenblith's (1959) investigation of imitation. Rosenblith found that an adult male leader is a more effective model for imitation by boys than would be a feminine leader.

The assumption here is that by five years of age, the male child will have identified with the appropriate sex role. Both studies imply that the reinforcement value of an adult for a particular individual is related to the kind of sexual ego-ideal he has developed. It is probable, for example, that in Shaffer's study the students' frequent gratifying experiences with a maternal figure contributed to a firm feminine ego-ideal or positive valuation of the feminine role. The likelihood that this valuation would increase the reinforcement value of the female therapist is suggested by their preference for this therapist.

Mischel (1958) reported that children whose fathers are present in the home preferred delayed, larger reinforcements, while fatherless children chose immediate, smaller reinforcements. The former group had an opportunity to develop greater trust defined as an expectancy for reinforcements to occur in spite of delay. Bach (1946) demonstrated that father-separated children have a stereotyped and
idealistic view of their father. They are seen as minimally aggressive and controlling and as feminized.

It is reasonable to assume that the absence of the father in Mischel's and Bach's studies contributed to whatever difficulties these Male Ss may have experienced in developing a strong masculine ego-ideal. One may hypothesize that these Ss would tend not to respond to attempts on the part of paternal surrogates to influence or direct their behavior.

An individual's ego-ideal relevant to a sexual role may be operationally defined in terms of his preferences for objects, activities and figures associated with a masculine or feminine role. Thus, D. G. Brown's (1956) IT Scale for Children, a semi-projective technique for ascertaining children's sex-role preferences will be employed as a measure of sex-role identification in the present study. Brown distinguished between sex-role preference and sex-role identification as two separate processes: sex-role preference referring to the sexual role that the child would like to have and identification referring to actual thoughts, feelings and actions the child has learned from his parents. Brown concedes that sex-role identification and preference are indistinguishable in normal children. In the case of the child who experiences ambivalence about a sexual role, identification and preference appear as conflictual processes.
Brown's distinction between these processes is probably an arbitrary one and difficult to demonstrate empirically. The broad and vague characterization of sex-role identification hinders its measurement. It is difficult to conceptualize the identification process without taking into account the child's experiencing an emotional investment in and an idealization of certain values and behaviors socially associated with the masculine or feminine roles. Freud's view that during the identification process the male child takes his father as an ideal and wishes to grow like him and be like him suggests that he viewed the child's preferences as an integral aspect of the identification process. Brown's investigation with the ITSC led him to conclude that his data failed to clarify the question as to how much the ITSC taps role preferences in relation to role identifications. This conclusion is understandable in terms of these concepts referring to different levels of conceptualizing the same process rather than referring to distinct processes.

Subsequent research with the ITSC by Mussen and Dieter (1959) employed this scale as a measure of sex-role identification. These authors found a significant correlation between the ITSE and the perception of the father as a salient and dominant figure. This result suggests that the development of a strong masculine ego-ideal is facilitated by frequent contact and interaction with the father.
In another study, these authors reported that mothers described fathers of children who scored high on the ITSC as more affectionate toward their children and taking greater responsibility for their care than fathers of low-scorers. The home atmosphere was depicted as more permissive and easygoing; love-oriented techniques of discipline were primarily used to influence the boy's behavior. These findings indicate that a male child's idealization of and preference for an appropriate sex-role is facilitated by rewarding experiences with his father as well as by frequent contact with him. They also lend in direct support to Helper's (1955) results, which indicated that a boy is more likely to perceive himself like his father and to aspire to his father's ideals for him if the mother approves of the father as a model for the child. Thus, in Mussen and DiStler's study, the mothers not only recognized but also approved of the father's assuming responsibility for the care of their sons.

Need for Approval

The prediction of behavior is often increased when, for certain purposes, sources of error variance are systematically investigated rather than controlled. In contrast to the view that situational influences confound test behavior, Rotter (1954) has suggested that the categorization and understanding of the psychological
situation will enhance the predictability of test instruments. Similarly, response sets, such as responding to test items in terms of their social desirability values, have been regarded as confounding factors to be controlled under all circumstances. In this manner it was thought that the logical validity of measuring instruments would be more unambiguously ascertained.

The major impetus for investigating social desirability as a response set came from Edward’s (1957) development of a social desirability scale derived from the MAS and the MMPI. This scale measures the tendency of subjects to give socially desirable responses to statements in self-description. A correlation of .87 was typically found between the judged social desirability value of an item and the probability of its endorsement. Various methods have been devised to minimize the influences of social desirability upon responding to personality inventories. Liverant (1958) devised forced-choice inventory for the measurement of internal, external control; the choices for each item equated on social desirability. Buss (1959) varied the social desirability values of test items by rewriting them to fit into diverse styles.

Jackson and Messick (1958) suggested the meaningfulness of conceptualizing social desirability as a consistent individual style. Investigations have indicated the
utility for predictive purposes of employing social desirability as a stable psychological construct. Allison and Hunt (1959) demonstrated a positive relationship between social desirability and the inhibition of verbal aggression regardless of the level of aggressive motivation and the number of alternatives available for other forms for expressing affect. High scorers on the Edwards scale expressed less verbal aggression in situations where justification for aggressive feelings was ambiguous.

The unidimensional nature of social desirability as a psychological characteristic has been questioned. DeSoto (1959) indicated that the Edwards SDS may be measuring social desirability for "well being" in contrast to "approval." Rosen (1956) differentiated between personal conceptions and cultural expectations of what constitutes socially desirable behavior.

Even greater differentiation is suggested by Messick (1960). His factor analysis of the intercorrelations among items rated for social desirability resulted in nine factors. The multi-dimensional nature of social desirability suggests that an individual's position on each dimension might be an appropriate goal for investigation. Predictions could then be made to performance in learning situations which are sensitive to the influence of these factors. One type of learning situation might be verbal operant conditioning with approval as a reinforcement.
Gewirtz and Baer's (1958) studies into operant conditioning with children imply that Factor III, labeled by Messick as "Emotional Dependence" may be related to conditionability among children. Similar predictions could be made for Factor I (Interpersonal Concern or Sensitivity), VI (Interpersonal Involvement) and VIII (Compulsive Conformity).

Only one study attempted to investigate the relationship between social desirability and verbal conditioning. Crowne and Strickland (1960) suggested that responding in a socially desirable manner may be conceptualized as a function of a need for social approval. They hypothesized a relationship between need for approval and yielding to the perceived demands of a non-test situation. This situation consisted of Greenspoon's (1955) paradigm of reinforcing plural nouns by a head nod and "mm-hmm." Need for approval was measured by the Marlowe-Crowne Social Desirability Scale described as independent of psychopathology. As predicted, increments and decrements in emitting plural nouns due to positive or negative reinforcements, respectively, were significantly correlated to need for approval. Need for approval conformed to an essential characteristic of needs, namely, to effect modification of behavior under conditions of reinforcement.

It would be meaningful to test further the construct validity of need for approval by relating it to verbal
operant conditioning among children. Although this need is generally recognized by clinicians and educators as significantly related to learning, experimental investigation of this relationship in young children has been nonexistent. Statements such as, "The child who responds best to positive statements might be characterized as being a good child who gets along well at school and at home. He seems to feel a need for social approval and acceptance" (Grace; 1948, p. 83) are commonly made but have not been tested. Sears et al. (1957) suggested that a child with a high need for approval will be more likely to emulate his parents. It is likely, too, that this child will be more responsive to reinforcements given by parental surrogates.

In the present study, the relationship between need for approval and verbal conditioning in children will be investigated. The response classes "father" and "mother" rather than a form of speech such as plural nouns or verbs will be conditioned in order to make the conditioning more relevant to "real life" situations.

**Internal Control**

According to the basic formula in Rotter's (1954) Social Learning Theory, the probability of occurrence of any behavior is a function of the expectancy that a specific reinforcement will follow that behavior and the value of that reinforcement in a given situation. In order to
explain the fact that expectancies for reinforcement do not always change in accordance with the actual achievement of previous reinforcements, the psychological situation was categorized in terms of internal versus external control. Under conditions of internal control, the subject is led to believe that reinforcements are contingent upon his own behavior rather than upon luck, fate or the intervention of others.

Several studies have demonstrated that the I-E dimension is useful in the prediction of the effects of positive or negative reinforcements upon the acquisition, generalization and extinction of expectancies. Subjects who believe that success or failure is the result of skill exhibit larger increments and decrements in expectancy under positive and negative reinforcements, respectively, than chance-oriented subjects. The typical finding that 100 per cent reinforcement results in faster extinction than partial reinforcement is misleading when the subject's perception of the situation is understood. Neff (1956), Lasko (1952), James and Rotter (1958) demonstrated the converse of the above finding for skill-oriented subjects.

The development of the Social Reaction Inventory focused attention on the I-E dimension as a psychological characteristic that manifests itself over a wide range of situations. The preceding studies emphasized the relationship between I-E and changes in expectancies. Changes in expectancy and the trying out of alternative behaviors are
major goals in therapy based on Social Learning Theory. Basic to the achievement of these goals is the patient's involvement in treatment. Simmons (1960) hypothesized a relationship between internal control and involvement in a concept-formation task developed by Rotter and Schroder. The greater involvement of Is should result in either greater improvement or variability as a function of success or failure, respectively. It was predicted, too, that Is would be influenced more by the nature of the training conditions (rigid versus non-rigid).

Involvement in therapy may be more related to performance during verbal operant conditioning than performance on a concept-formation task. Involvement might be operationally defined, as in Simmons' study, by behavioral change during external reinforcements, such as verbal approval. The present study deals with the relationship between internal control and rate of conditioning. No investigation of the relationship between internal control and verbal operant conditioning in children has been attempted. This neglect may be partly due to the lack of a methodology for the operant conditioning of verbal behavior in children. Chapter III will describe the development of a methodology to study verbal operant conditioning in young children.
Verbal Conditioning

Greenspoon's (1955) pioneering study on the conditioning of plural nouns provided the major impetus for the later investigation of the effectiveness of various social reinforcers, the conditionability of diverse response classes and levels of awareness. A major assumption of subsequent research was that the verbal conditioning paradigm can be meaningfully conceptualized as a simplified, miniature model for the analysis of interpersonal situations such as therapy and interviewing. Krasner's (1958) extensive review of the literature on operant conditioning indicated a paucity of research into those aspects of the conditioning situation which would clarify its relevance to other interpersonal situations. These important aspects would involve (a) the behavior of the reinforcing agent, (b) content of the rewarded response and (c) personality characteristics of the subject.

The significance of E's behavior upon the effectiveness of conditioning is evidenced by the finding of Ferguson and Buss (1960) that an aggressive E is a less effective reinforcing agent than a neutral E. This recent study was one of the first attempts to clarify the influence of specific situational factors upon learning without awareness.
By taking into consideration the content of the rewarded response, the similarity between the verbal conditioning model and psychotherapy may be increased. Generalization from one situation to the other would thereby be facilitated. Rogers (1960) demonstrated the feasibility of increasing similarity without a loss of control or rigorosity in experimental design. While previous studies involved the conditioning of response classes irrelevant to psychotherapy, such as plural nouns, verbs, and so on, Rogers indicated that a response class associated with conflict (negative self-references) could be conditioned within an interview situation. Saslow et al. (1960) reported that human content could be significantly conditioned, although the reinforcement of plural nouns resulted in insignificant conditioning. Probably the easier discrimination of the human content category contributed to the effectiveness of conditioning.

The relationship between the S's psychological characteristics and responsiveness to verbal conditioning has been studied primarily in terms of temporary psychological states that may be aroused by the conditioning situation itself. Hildum and Brown (1956) found that the reinforcement of an acquiescent response to an opinion questionnaire is most effective when the Ss seem perplexed about the task. Thus, the Ss perception of the situation strongly influences the rate of conditioning. Sarason
(1958) found that patients rated by their psychotherapists as highly compliant performed in a verbal conditioning situation at a significantly higher level than patients rated as non-compliant. Sapolsky (1960) indicated that mutual attraction between E and S, aroused by specific instructions, and "compatibility" of need systems increased the reinforcement value of E.

Very little data is available concerning the relationship between stable personality characteristics arising from an individual's past experiences and behavior in a verbal operant conditioning situation. In addition, the question as to how the influences of the three major aspects of verbal conditioning (E's characteristics, personality characteristics of S and content) may simultaneously interact has not been investigated.

The role of any one of the aforementioned aspects upon verbal conditioning in children has not been systematically studied. It seems that the major purpose of the few conditioning studies using children as Ss has been to demonstrate that learning without awareness in this age group does occur. Patterson (1960) reported a relationship between conditioning children's word associations to the Kent-Rosanoff List and two measures of anxiety (GSR, clinical judgments). Gewirtz and Baer (1958) demonstrated the feasibility of conditioning pre-schoolers to
drop marbles into a two-holed box according to various schedules of reinforcement. They concluded that the conditioning of boys is most effective with a female E.

A basic assumption of the present study is that the reinforcement value of a male or female E is related to the child's positive valuation or idealization of a masculine or feminine role, respectively. It is possible that children selected from a pre-kindergarten population, as in Gewirtz's study, had not as yet developed a consistent sexual ego-ideal. Hartup, Zook (1960) and Brown (1959) demonstrated a steady change toward greater masculinity during the three- through eleven-year-old period. Lynn (1959) and Emmerich (1959) provided theoretical and empirical support, respectively, for the hypothesis that boys receive relatively consistent reinforcement throughout early and middle childhood for preferring and adopting certain stereotyped aspects of the male role. Chronological age, by being related to sex-role preferences, may be associated with responsiveness to social reinforcements.

The nature of the task employed by Gewirtz limits the generalization of their findings to situations involving behaviors that are of greater concern to psychologists. This generalization may be facilitated by conditioning verbal behavior which is significant to the child in terms of previous experiences. It is reasonable to assume that a
child's responsiveness to the conditioning of "Mother" or "Father" will depend upon his valuations of the sex-roles represented by these concepts.

Gewirtz and Baer's (1958) conclusion that the fact that the deprivation of some social reinforcers might produce drive effects, while the deprivation of others might not, implies that differences in socialization procedures are significant in determining the effectiveness of social reinforcers. The primary goal of the present study is to test the relationship between a major outcome of socialization, sex-role identification, and the effectiveness of social reinforcers.
CHAPTER III

DEVELOPMENT OF THE HYPOTHESES

Sex-Role Identification and Verbal Conditioning

Much of the research on identification has involved the analysis of the antecedent conditions of sex-role preference and the formation of conscience. These conditions, subsumed under the label of "love-oriented" techniques of discipline, have been related to parental awareness, warmth, salience and power. The consequent conditions of identification have received much less theoretical or experimental attention.

It is commonly assumed that a child's internalization of parental norms will enable him to respond and to conform to other adults who attempt to influence his behavior. The basis for this conformity may lie in the identification process itself. For identification to occur, the child must develop a dependent relationship with a parent. This relationship may be expressed by a heightened sensitivity to positive and negative reinforcements controlled by the parent.

A relationship between identification and responsiveness to social reinforcers is indirectly suggested by
several investigations. Payne and Mussen (1956) reported that the frequency of concrete rewards given by fathers correlated with the intensity of a masculine identification in their sons. These investigators stated that their evidence was not conclusive as to which variable, identification or reward, is antecedent. It is quite plausible that a child's identification with the father will be reflected in behavior that is readily rewarded. Such a child would be influenced by social as well as by material rewards.

Sears et al. (1953), as a post-hoc explanation for some of their data, suggested that a highly identified child would be affected more by a given degree of reinforcement than a low-identified child. Several studies (Bach, 1946; Mischel, 1958) indicated that conditions which interfere with the development of a "normal" father-child relationship, such as paternal absence, may limit the child's ability to respond appropriately to social demands.

Gray (1959) demonstrated that identification with the father figure, as determined by measures of perceived similarity, is related to adjustment in children. Adjustment was measured by scores on the children's MAS and by a sociometric procedure. Thus, masculine-role identification appears related to gross measures of effectiveness in dealing with one's social environment. Terms such as "adjustment" and "social effectiveness" are vague and imprecise. Objective and reliable measures of these gross variables...
are difficult to achieve. Their utility in experimental work depends upon the establishment of criteria, in operational terms, by which their presence may be evaluated. For example, a child's ability to modify his behavior in relation to the objective nature of external reinforcements may be a useful criterion for judging one aspect of "adjustment."

Judgments of social adjustment in terms of behavioral change congruent with external reinforcements are not readily achieved. Allinsmith (1957) indicated the difficulty in real life situations of making valid judgments as to whether an individual's behavior is based on internal or external systems of reward and punishment.

The assumption in the present study is that behavioral change will be most marked when external rewards impinge upon subjects who have developed an internalized reward system. Subjects with a highly developed structure of covert self-rewarding response tendencies are likely to be more identified with a parental role than subjects who are primarily dependent upon external rewards and punishment for guidance. Sears (1957) described the formation of an identification as the individual's learning to be his own source of rewards rather than remaining dependent upon external sources, as in the case of the young child. Thus identification involves the development of internalized systems of control.
Up to this point, the assumption and rationale underlying the hypotheses have been stated in general terms. The remainder of this chapter will be devoted to stating explicitly the hypotheses and predictions to be tested. These hypotheses are subsumed under the following headings:

I. Masculine-Role Identification and Sex of the Reinforcing Agent

II. Masculine-Role Identification and Content of the Conditioned Response

III. Masculine-Role Identification, Sex of the Reinforcing Agent and Content of the Conditioned Response

IV. Internal Control and Effectiveness of Verbal Conditioning

V. Need for Approval and Effectiveness of Verbal Conditioning

I. Masculine-Role Identification and Sex of the Reinforcing Agent

An important assumption in this study is that by the age of five or six years, most male children have developed a firm masculine-role identification. These children will have developed a masculine ego-ideal that involves a strong preference for activities and physical objects (toys, clothing, and so on) which are generally associated with the male role. A significant aspect of this ego-ideal should be a wish to associate with male peers and adults.
The cooperation, support and help of male adults would be particularly salient for the child with a firm preference for the male role. It is to be expected that these boys will perceive male adults as having more reinforcement value than female adults. A male E's approval and verbal support would be especially potent for these Ss. Ss, with a highly positive valuation of the male role, should be more conforming to the approval shown by a male E in contrast with a female E. The rewarding stimulus, "Good," from a male adult would evoke a similar covert and internalized response within the highly identified Ss, thereby strengthening the potency of the adult's approval. The reinforcement value of a female E for a highly identified S should be less. Her verbal approval should not produce as much conditioning as in the case of the male E. Thus, Ss with a high masculine identification should be conditioned more effectively by a male E than by a female E.

Ss with a positive valuation of and a firm preference for the feminine role should be attracted to situations, activities and figures associated with this role. These Ss should perceive female adults as more rewarding and supportive. Female adults also should be seen as gratifying the dependency needs of these Ss more than male adults. It is predicted that they would condition more readily to a female E than to a male E, who would be viewed as having less reinforcement value.
It logically follows from the preceding hypotheses that the male E will more effectively condition the high masculine identifiers in contrast to the low masculine identifiers. A female E will more effectively condition low masculine identifiers in contrast to high masculine identifiers.

The criteria for the effectiveness of the verbal conditioning will be the difference score (D) between the first and last (fifth) block of conditioning trials. These hypotheses are reflected in the following set of predictions:

a) High-masculine identifiers conditioned by a male E will have significantly larger D scores than high-masculine identifiers conditioned by a female E.

b) Low-masculine identifiers conditioned by a female E will have significantly larger D scores than low-masculine identifiers conditioned by a male E.

c) High-masculine identifiers conditioned by a male E will have significantly larger D scores than low-masculine identifiers conditioned by a male E.

d) Low-masculine identifiers conditioned by a female E will have significantly larger D
scores than high-masculine identifiers conditioned by a female E.

II. **Masculine-Role Identification and Content of Conditioned Response**

Studies on verbal operant conditioning of adults or children have generally disregarded the significance of content upon learning. Systematic variation of this variable may shed light upon individual differences in conditionability. It is reasonable to assume that an individual's responsiveness to the reinforcement of various content variables will be a function of the nature of his sex-role preferences as these relate to the persons, objects or activities represented by the content. For example, it can be assumed that Ss with a firm masculine ego-ideal will be more sensitive and attracted to content referring to the masculine role. The term "father," itself, should contain a positive valence for these boys. This valence would be indicated by a greater sensitivity to "father" than to "mother" during verbal reinforcements. On the other hand, Ss with a weak masculine ego-ideal should condition more readily when "mother" rather than "father" is reinforced. It is assumed that the relatively stronger preference for the female role will be manifested in a tendency to ascribe more activities to the term "mother" than to "father."
This tendency will be revealed during continuous reinforcement of "mother."

It is hypothesized, also, that the conditioning of "father" will be more effective for high-masculine identifiers in contrast to low-masculine identifiers. "Mother" will be more readily conditioned among low-masculine identifiers in contrast to high-masculine identifiers. These hypotheses lead to the following predictions:

a) High-masculine identifiers will have a significantly larger D score for the emitted response "Father" in contrast to "Mother."

b) Low-masculine identifiers will have a significantly larger D score for the emitted response "Mother" rather than "Father."

c) High-masculine identifiers will have a significantly larger D score than low-masculine identifiers when "Father" is rewarded.

d) Low-masculine identifiers will have a significantly larger D score than high-masculine identifiers when "Mother" is rewarded.

III. Masculine-Role Identification, Sex of E and Content of Conditioned Response

On the basis of the previous reasoning, it is hypothesized that congruence between level of sex-role preferences on sex of E and the sex type of the rewarded response should
result in greater conditioning than when a disparity exists among these three variables. Verbal approval will effect the largest change when the potential contribution of each variable is summated. Ss who are strongly attracted to the masculine-role should perceive a male E as having more reinforcement value than a female E and be more sensitive to "father" than to "mother." The following predictions can therefore be made:

a) A significantly larger D score should be found for high-masculine identifiers conditioned by a male E to "Father" than for any one of the following combinations of these three variables:

1) High-masculine identifiers - Female E - Father
2) High-masculine identifiers - Female E - Mother
3) High-masculine identifiers - Male E - Mother
4) Low-masculine identifiers - Male E - Father
5) Low-masculine identifiers - Female E - Father
6) Low-masculine identifiers - Male E - Mother
b) A significantly larger D score should be found for low-masculine identifiers conditioned by a female E to "Mother" than for any one of the preceding combinations, 1 - 6.

Ss with a weak-masculine identification will probably experience more conflict and anxiety in a social situation than Ss with an appropriate identification. The basic maladjustment of the former Ss may be expressed by a more limited ability to respond appropriately to social reinforcements. It is hypothesized that Ss with a high-masculine identification will be more effectively conditioned than Ss with a low-masculine identification when other conditions, sex of E and content, are equally favorable for both groups. More specifically, it is predicted:

c) High-masculine identifiers conditioned by a male E to "Father" should have significantly larger D scores than low-masculine identifiers conditioned by a female E to "Mother."

IV. Internal Control and Verbal Conditioning

Psychotherapists frequently report that patients who assume personal responsibility for the course of events are more likely to benefit from treatment. Recordings of the therapeutic process have indicated that patients' verbalizations are often influenced by the therapists' statements of encouragement, approval and agreement. It would seem that
both observations may be related. Patients who assume
greater responsibility will perceive the therapists' 
reinforcements as a function of their own behavior. They 
would then respond in a manner which is congruent with the 
nature of the reinforcements.

An individual who perceives outcomes as a function 
of his own behavior should behave in a manner more appropriate with the reinforcing conditions than an individual who 
believes that fate or chance determined the consequences of 
his behavior. The high internal S will perceive himself as 
responsible for the rewards he is obtaining. In order to 
maximize the conditions of reward, he will modify his 
behavior accordingly as compared with low internals, whose 
behavior will remain unchanged.

The validity of this hypothesis has been demonstrated 
where performance indicated changes in expectancies for 
reinforcement. The relationship between internal control 
and learning without awareness, as a form of learning which 
seems particularly relevant to psychotherapy, has not been 
studied. In an operant conditioning situation, the greater 
involvement of the internally oriented subject should 
result in a propensity to emit verbal responses which will 
maximize the probability of obtaining social approval. 
Therefore, a positive relationship is hypothesized between 
internal control and the effectiveness of the reinforcement,
verbal approval. On this basis, the following prediction may be made:

a) High internal Ss will have significantly larger D scores than will low internal Ss.

V. Need for Approval and Verbal Conditioning

Behavioral change is most likely to occur when a specific need is congruent with a particular reinforcement. An individual with a high need for approval will be most affected by reinforcements in the form of approval. Messick's (1960) factor analysis resulted in the multi-dimensions relevant to the Ss responsiveness to social reinforcements, positive or negative. It is reasonable to assume that high scores on the dimensions "Interpersonal Concern" or "Interpersonal Sensitivity" would be correlated with yielding to the perceived demands of a situation. An operational formulation of "yielding" would be an increase in frequency of emitted response which has been continuously reinforced.

The perceived reinforcement value of the E's approval should be greater for Ss with a strong need for approval. Ss with a high need for approval can be expected to change their behavior in order to increase the probability of obtaining social approval and recognition. The behavioral change would be in the direction of complying with the E's rewards. A significant relationship is hypothesized.
between need for approval and verbal conditioning arising from social approval. It is predicted:

a) Significantly larger D scores will be obtained by Ss with a strong need for approval in contrast with Ss with a low need for approval.
CHAPTER IV

METHODOLOGY

Subjects

The subjects used in this study were boys between the ages of five and seven years. These children comprised the entire kindergarten and first grade classes of two Columbus public schools. These schools were chosen on the bases of their heterogeneous populations and location in low-middle socioeconomic areas in order to maximize the variability among the children's performance.

Although the study required eighty children, the ITSC, a measure of sex-role identification, was initially administered to 135 children to ensure a sufficient sample of high and low scorers. The various scales used in this study and the conditioning procedure were individually administered to each child.

Personality Measures

ITSC

The IT Scale for Children, originated by D. G. Brown (1956), was used as a measure of sex-role identification. This scale consists of thirty-six picture cards, three by four inches, depicting objects, figures and activities
commonly associated with masculine and feminine roles. 

Masculine-role identification is operationally defined in terms of preferences for objects which represent the male role.

An ambiguous child-figure drawing, referred to as "It," unstructured as to sex, was used by having each child make choices for It. In using It, the assumption is made that direct questioning of the child may evoke responses more strongly influenced by a need to conform to social expectations.

Section I, consisting of sixteen cards depicting eight masculine toys and eight feminine toys, is presented to the child. The child is asked to put It on the toy It would like the best. Part II involves placing It on eight paired pictures depicting activities and figures of the two roles. Part III involves the choice of one among four child figures which vary in terms of sexual characteristics. Masculine preferences for the various sections are weighted differentially so that an individual's score may range from zero (strongly feminine) to eighty-four (strongly masculine).

Reliability of the scale, determined by test-retest with a one month interval, is .71 for boys.

Construct validity for this scale is indicated by Mussen and Ditler's (1959) finding of a significantly
positive relationship between the ITSC and the child's perception of his father as a powerful figure. Low scorers on the ITSC were rated as more feminine on the basis of the Fels Behavior Rating Scales. In another study (Mussen and Ditler, 1960), fathers of high scorers on the ITSC were depicted as more affectionate, more responsible for discipline and more likely to use love-oriented techniques of discipline than were the fathers of low scorers. Boys with high ITSC scores also received significantly higher ratings on conscience development. Paternal attitudes and behavior were more predictive of variability in masculine identification than maternal attitudes.

Lynn (1959) has suggested that with increasing age, appropriate sex-role preference, adoption and identification intercorrelate to a greater degree among boys than among girls. Research by Hartup (1960) and Brown (1957) with the ITSC supported Lynn's conclusion that the development of a masculine-role identification increases with chronological age. Brown reported, too, that girls frequently preferred the opposite sex-role while boys consistently chose masculine objects and activities on the ITSC. These findings are in accord with the Freudian and Adlerian position concerning the female's frequent rejection of her role and envy of the male-role.
The Children's Need for Approval Scale

The Marlowe-Crowne Social Desirability Scale provided the basis for the development of a need for approval scale appropriate to young children. The adaptation consisted of simplifying and concretizing the wording of the M-C SDS. The new version also depicts situations which are more in line with the experiences of young children.

The Children's Need for Approval Scale consists of twenty-three items so worded that for some items a "Yes" answer, and for other items a "No" answer indicates a need for approval. The scale was administered verbally to each child. It was introduced as a way of finding out how children feel about certain things. The S was assured that this is not a test and that children give different answers. He was told that there are no right or wrong answers. The S was asked to say "Yes" or "No" depending on how he felt the question should be answered. The child's answer to each question was recorded. The scale is scored in terms of the total number of responses indicating a need for approval.

Internal Control

The scale used to measure internal control was adapted from Bialer's (1960) Locus of Control. The wording was simplified to make the scale more readily understood by children five to seven years of age or younger. The scale consists of twenty-one items so worded that "Yes" for some questions and "No" for others indicates a tendency to
perceive events as being under one's control. The scale is scored in terms of the total number of responses indicating internal control. Instructions for administering the scale are virtually identical with the Children's Need for Approval Scale.

Some validity for the Locus of Control Scale is provided by Bialer's finding that it correlates with various indexes of maturity. The scale is significantly related to chronological age, ability to tolerate delay in gratification and the ability to conceptualize experiences in terms of success, failure rather than pleasant, unpleasant.

Behavioral Situation

A technique for conditioning verbal operant behavior in children which is applicable to a wide range was developed during pretesting. Each child was presented with four plastic cut-out doll figures varying from four to six inches in height. Each figure is identical except for apparent age and sex characteristics. The child was told that the names of the figures are "Father," "Mother," "Brother" and "Sister." He was asked to show how well he remembered these names by picking up each doll and stating its name. By praising the child's responses, the examiner attempted to
establish rapport and present himself as a reinforcing agent. The child was then told:

This is how we are going to play a game. I am going to ask you a question. You may answer by saying the name of any one of these dolls. Pick up the doll when you say its name just like you did before. I could say, "Who sat down?" Which doll could you choose?

It was emphasized to the child that he can choose any doll. Several examples were given and the child was told to choose whichever doll came to his mind first. The latter statement discouraged the child from wondering about the correctness of a particular choice.

Five blocks of trials, each block consisting of fifteen questions, were then administered. No reinforcements were given for the first block which constituted the free operant phase. For the remaining four blocks, the child's response of "Father" or "Mother" was reinforced with "Good." The effectiveness of the reinforcement was measured by noting the difference in frequency of the rewarded response between the first and the last blocks. This difference will be referred to in subsequent discussion as the "D" score.

The questions asked of each child were chosen primarily in terms of their eliciting, during pretesting, each of the names an equal number of times. A few questions which tended to elicit a specific name were balanced by including other questions which elicited other names. No
two questions were alike. The index cards, on which the
texts had been typed, were shuffled several times
before the operant phase began in order to prevent questions
eliciting a specific name from piling up within any one
block of trials.

In order to determine level of awareness, each child
was asked these questions after conditioning:

Which doll did you choose most often? Why?
Was there anything I did which you noticed?
What about my saying "Good"?
Why do you think I did that?
Did my saying "Good" have anything to do with
the doll you chosen most often?

Procedure

The ITSC was administered to 135 children during the
winter, 1960-'61, by the author. The Scale was introduced
as a game which was being tried out on school children.
Answer sheets had been prepared beforehand to facilitate
the recording of the children's responses. The answer
sheets were scored after the initial sample had been tested.
The forty highest and forty lowest scorers were then
selected for the second phase of the testing. The highest
scores on the ITSC ranged from 62 - 84 with a mean of 76.72
and a standard deviation of 6.52. The lowest scores ranged
from 0 - 44 with a mean of 21.62 and a standard deviation of
15.62.
Several weeks after the administration of the ITSC equal numbers of high and low ITSC scorers were randomly assigned to a male and a female E. The responses "Father" and "Mother" were alternately conditioned. This resulted in the following 2x2x2 analysis of variance design with an N of ten in each of eight cells.

The testing during the second session proceeded in the following order: verbal conditioning, administration of the Locus of Control. Children's Need for Approval Scale and the vocabulary sub-test from the WISC. The vocabulary test was administered last since it is least likely to be influenced by fatigue effects.
CHAPTER V

RESULTS

The effectiveness of the verbal conditioning procedure is depicted in Graph 1. The average frequency of the rewarded response is indicated for each one of the five blocks of trials. The average frequency of the operant or non-reinforced response is 3.84. The highest average frequency, 8.6, is found within the final block of trials. The large difference in average response frequency between blocks I and V indicates that the conditioning procedure was generally quite effective. There is a slight leveling
tendency between blocks II and III after which the rate of increase is rapid.

The effectiveness of conditioning within the eight experimental groups is indicated by Graphs II and III. These graphs suggest that conditioning occurred in all groups, although the rate of conditioning varied among these groups. Graph II indicates that the high-masculine identifiers conditioned in conformity with the prediction which were made for these Ss. A male E was consistently a more effective reinforcing agent than a female E and to a lesser degree, "father" was more readily conditioned than "mother." Graph III indicates that the predictions relevant to the low-masculine were not confirmed. "Father" was more readily conditioned than "mother" and only slight differences were found in relation to sex of E.

In order to determine the relationship between verbal conditioning and level of awareness, the percentage of Ss who expressed some awareness of the contingency between their response and Es' approval was computed for the high and low conditioners. Ss were considered as low conditioners if they obtained a D score equal to zero or one. The results are indicated in Table 1.

Table 1 indicates that a very large percentage of Ss within the high and low conditioned groups were unaware of any relationship between their response and the E's verbal approval.
Figure II

Figure III. Relationship Between Rate of Conditioning and Blocks of Trials
TABLE 1

RELATIONSHIP BETWEEN LEVEL OF AWARENESS AND DEGREE OF CONDITIONING

<table>
<thead>
<tr>
<th>Level of Awareness</th>
<th>High Conditioned</th>
<th>Low Conditioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Awareness</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Minimal Awareness</td>
<td>92%</td>
<td>96%</td>
</tr>
</tbody>
</table>

\[N_1 = 56, \quad N_2 = 24.\]

An analysis of the frequency of Ss expressing some awareness of the conditioning relationship among the eight experimental groups revealed very small differences among these groups. Thus the differential effectiveness of conditioning among these groups seems to be unrelated to level of awareness.

As previously mentioned, the ITSC was administered to 135 boys and from this population a sample of forty highs and forty lows were selected in reference to the strength of their masculine ego-ideal. The means, standard deviation and ranges of the sample will be found in Table 2. The raw data on all behavioral measures for all Ss may be found in Appendix D.

As a basis for evaluating the relationship between sex-role identification and conditioning as outlined in hypotheses I, II, and III, the means and standard deviations and frequencies were calculated for the eight
experimental groups. These results are summarized in Tables 3 and 4.

**TABLE 2**

**MEANS, STANDARD DEVIATIONS AND RANGES OF THE ITSC SCORES**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>80</td>
<td>0-84</td>
<td>49.20</td>
<td>30.01</td>
</tr>
<tr>
<td>Hi-Masc. Id.</td>
<td>40</td>
<td>62-84</td>
<td>76.72</td>
<td>6.52</td>
</tr>
<tr>
<td>Lo-Masc. Id.</td>
<td>40</td>
<td>0-44</td>
<td>21.62</td>
<td>15.62</td>
</tr>
</tbody>
</table>

**TABLE 3**

**MEANS, STANDARD DEVIATIONS AND FREQUENCIES FOR EXPERIMENTAL GROUPS INCLUDING HIGH-MASCULINE IDENTIFIERS ON THE CRITERION OF DIFFERENCE SCORES IN CONDITIONING**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi-Masc. Id., Male E, &quot;Father&quot;</td>
<td>7.7</td>
<td>2.97</td>
<td>10</td>
</tr>
<tr>
<td>Hi-Masc. Id., Male E, &quot;Mother&quot;</td>
<td>6.3</td>
<td>3.61</td>
<td>9</td>
</tr>
<tr>
<td>Hi-Masc. Id., Female E, &quot;Father&quot;</td>
<td>3.4</td>
<td>3.32</td>
<td>6</td>
</tr>
<tr>
<td>Hi-Masc. Id., Female E, &quot;Mother&quot;</td>
<td>1.9</td>
<td>2.58</td>
<td>5</td>
</tr>
</tbody>
</table>

1N of each group = 10.
TABLE 4

MEANS, STANDARD DEVIATIONS AND FREQUENCIES FOR EXPERIMENTAL GROUPS INVOLVING LOW-MASCULINE IDENTIFIERS ON THE CRITERION OF DIFFERENCE SCORES IN CONDITIONING

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lo-Masc. Id., Male E, &quot;Father&quot;</td>
<td>3.7</td>
<td>3.10</td>
<td>7</td>
</tr>
<tr>
<td>Lo-Masc. Id., Male E, &quot;Mother&quot;</td>
<td>3.6</td>
<td>3.58</td>
<td>5</td>
</tr>
<tr>
<td>Lo-Masc. Id., Female E, &quot;Father&quot;</td>
<td>5.6</td>
<td>4.00</td>
<td>9</td>
</tr>
<tr>
<td>Lo-Masc. Id., Female E, &quot;Mother&quot;</td>
<td>2.1</td>
<td>1.97</td>
<td>5</td>
</tr>
</tbody>
</table>

*N of each group = 10.

The assumption of homogeneity of variances was tested by the F max test (Walker and Lev, 1953, Table VII) involving the largest (4.2) and smallest variances (1.97²). Since the resulting F of 4.12 is insignificant at the 5 per cent level it was concluded that this basic requirement for employing parametric tests of significance had been fulfilled.

The analysis of variance relevant to predictions I, II and III concerning the influence of sex-role identification, sex of E and content upon verbal condition is summarized in Table 5.

No hypotheses were made concerning the relationship between sex-role identification and verbal conditioning irrespective of sex of E or content. Table 5 indicates that the F of 2.03, computed on the difference between the variances of high-masculine identifiers and low-masculine
TABLE 5

SUMMARY OF ANALYSIS OF VARIANCE CONCERNING INFLUENCES OF SEX-ROLE IDENTIFICATION, SEX OF E AND CONTENT UPON VERBAL CONDITIONING

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>d.f.</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>295.1</td>
<td>7</td>
<td>42.16</td>
<td>3.7 **</td>
</tr>
<tr>
<td>Between Level of Ident.</td>
<td>23.11</td>
<td>1</td>
<td>23.11</td>
<td>2.03</td>
</tr>
<tr>
<td>Between Sex of E</td>
<td>86.10</td>
<td>1</td>
<td>86.10</td>
<td>7.57**</td>
</tr>
<tr>
<td>Between Content</td>
<td>52.81</td>
<td>1</td>
<td>52.81</td>
<td>4.64*</td>
</tr>
<tr>
<td>Interaction: Ident. x Sex of E</td>
<td>103.51</td>
<td>1</td>
<td>103.51</td>
<td>9.10**</td>
</tr>
<tr>
<td>Interaction: Ident. x Content</td>
<td>.61</td>
<td>1</td>
<td>.61</td>
<td>-</td>
</tr>
<tr>
<td>Interaction: Sex of E x Content</td>
<td>15.31</td>
<td>1</td>
<td>15.31</td>
<td>1.35</td>
</tr>
<tr>
<td>Interaction: Ident. x Sex of E x Content</td>
<td>13.65</td>
<td>1</td>
<td>13.65</td>
<td>1.20</td>
</tr>
<tr>
<td>Within Groups</td>
<td>819.30</td>
<td>72</td>
<td>11.38</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.

**p < .01.

identifiers, is insignificant at the 5 per cent level. Thus the level of identification, by itself, is not significantly related to verbal conditioning.

No hypotheses were made concerning the reinforcing effectiveness of a male E versus a female E regardless of level of identification and content. Nevertheless, Table 5
indicates that the test on the difference between the variances of all Ss conditioned by a male E and those conditioned by a female E resulted in an F of 7.57 which is significant at the 1 per cent level. Since the mean D score of Ss conditioned by a male E is 5.32 and those conditioned by a female E is 3.25, it can be concluded that Ss rewarded by a male E conditioned to a significantly greater degree than Ss rewarded by a female E.

Predictions were not made concerning the differential conditionability of the two content variables "mother" and "father" irrespective of level of identification and sex of E. Table 5 indicates that that difference between the variances of Ss conditioned to "father" and those conditioned to "mother" is significant at the 5 per cent level (F = 4.64). Thus, the content of the rewarded response is significantly related to the effectiveness of verbal conditioning. Since the mean D score for "father" is 5.10 and the mean D score for "mother" is 3.47, it is concluded that the term "father" was generally more effectively conditioned than the term "mother."

In order to determine the conditions associated with the greater conditionability of "father," in contrast to "mother," t tests between these content variables were computed for each level of identification. These results are reported in Table 6.
TABLE 6
T TESTS BETWEEN "FATHER," "MOTHER" WITHIN HIGH AND LOW MASCULINE GROUPS

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Groups*</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Score</td>
<td>Hi-Masc. Id.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Father vs. Mother</td>
<td>1.8</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Lo-Masc. Id.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Father vs. Mother</td>
<td>2.33</td>
<td>.05</td>
</tr>
</tbody>
</table>

*N of each group = 20.

Table 6 indicates that "father" was conditioned only slightly more often than "mother" in the high-masculine group. However, within the low-masculine group, this difference is significant at the 5 per cent level.

I. MASCULINE-ROLE IDENTIFICATION AND SEX OF THE REINFORCING AGENT

Hypothesis I predicted a significant interaction between sex-role identification and sex of E upon verbal conditioning. Table 5 indicates a significant interaction effect at the 1 per cent level (F = 9.10). In order to determine the specific nature of this interaction, t tests were computed between the various levels of identification and sex of E.

A. Prediction IA stated that high-masculine identifiers conditioned by a Male E will have significantly larger D scores than high-masculine identifiers conditioned
by a Female E. The validity of this prediction was tested by calculating a "t" on the difference between high-masculine identification, Male E and high-masculine identification, Female E. The results are reported in Table 7.

**TABLE 7**

**t TEST BETWEEN HIGH-MASCUINE IDENTIFICATION, MALE E AND HIGH-MASCUINE IDENTIFICATION, FEMALE E**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Groups¹</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Score</td>
<td>High-Masc. Id., Male E</td>
<td>5.9</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>High-Masc. Id., Female E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹N of each group = 20.

Table 7 indicates that prediction Ia is confirmed at the 1 per cent level of significance. These results support the hypothesis that Ss with a high-masculine identification are conditioned more effectively by a Male E than by a Female E.

B. Prediction IB stated that low-masculine identifiers conditioned by a Female E will have significantly larger D scores than low-masculine identifiers conditioned by a Male E. A "t" test was calculated on the difference between low-masculine identification, Female E and low-masculine identification, Male E. The results are reported in Table 8.
TABLE 8

t TEST BETWEEN LOW-MASCULINE IDENTIFICATION, MALE E AND LOW-MASCULINE IDENTIFICATION, FEMALE E

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Groups¹</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Score</td>
<td>Lo-Masc. Id., Male E</td>
<td>.27</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Lo-Masc. Id., Female E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹N of each group = 20.

Table 8 indicates that the above result is insignificant. Thus prediction IB is not confirmed. The results are in a direction which is opposite from the prediction. The low-masculine identifiers tended to be conditioned by a male E, although the difference is not significant.

C. Prediction IC stated that high-masculine identifiers conditioned by a Male E will have significantly larger D scores than low-masculine identifiers conditioned by a Male E. The t test calculated between these groups is indicated in Table 9.

TABLE 9

t TEST BETWEEN HIGH-MASCULINE IDENTIFICATION, MALE E AND LOW-MASCULINE IDENTIFICATION, MALE E

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Groups¹</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Score</td>
<td>Hi-Masc. Id., Male E</td>
<td>4.35</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Lo-Masc. Id., Male</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹N of each group = 20.
Table 9 indicates that prediction IC is confirmed at the 1 per cent level of significance. These results validate the hypothesis that high-masculine identifiers will be more significantly conditioned by a Male E than will low-masculine identifiers.

D. Prediction ID stated that low-masculine identifiers conditioned by a Female E will have significantly larger D scores than high-masculine identifiers conditioned by a Female E. Table 10 indicates that "t" computed between these two groups.

Table 10

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Groups</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Score</td>
<td>Hi-Masc. Id., Female E</td>
<td>1.55</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Lo-Masc. Id., Female E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1N of each group = 20.

The above results indicate that the difference between these two groups is insignificant. Thus prediction ID is not confirmed.

II. Masculine-Role Identification and Content of the Conditioned Response

Predictions IIA, IIB, IIC and IID hypothesized a significant interaction between sex-role identification and
content ("mother" vs. "father") upon verbal conditioning. Table 5 indicates that the variance within groups is much greater than the variance between groups for the interaction: identification x content. Thus there is no support for hypothesis II concerning the joint influences of sex-role identification and content upon conditioning. Since the initial differences are clearly insignificant, additional tests of significance between levels of identification and the content variables were not made. Thus predictions IIA, IIB, IIC and IID are not supported.

No predictions were made concerning the interaction effects between sex of E and content upon conditioning. Table 5 indicates that the joint effects of sex and content are quite insignificant ($F = 1.35, p > .05$).

III. Masculine-Role Identification, Sex of E and Content of the Conditioned Response

Predictions IIIA, IIIB and IIIC were developed on the basis of a triple interaction between level of sex-role identification, sex of E and content. Table 5 indicates that this interaction is clearly insignificant ($F = 1.20, p > .05$). For this reason, additional tests of significance to specify the contribution of each variable were not made. Thus, predictions IIIA, IIIB and IIIC are not confirmed.

In reference to hypotheses IV and V concerning the relationship between internal control, need for approval
and conditioning, the means and standard deviations of the relevant behavioral measures were calculated. These results are indicated in Table 11.

**TABLE 11**
RANGE, MEAN AND STANDARD DEVIATION OF BEHAVIORAL MEASURES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's Napp. Scale</td>
<td>8-22</td>
<td>16.12</td>
<td>4.08</td>
</tr>
<tr>
<td>Locus of Control Scale</td>
<td>6-17</td>
<td>11.76</td>
<td>2.47</td>
</tr>
<tr>
<td>Voc. Sub-Test</td>
<td>8-28</td>
<td>17.73</td>
<td>4.54</td>
</tr>
<tr>
<td>D Score</td>
<td>0-12</td>
<td>4.28</td>
<td>3.71</td>
</tr>
</tbody>
</table>

In order to evaluate hypotheses IV and V, correlations (Pearson r's) were calculated among all behavioral measures. The results are summarized in Table 12.

**TABLE 12**
INTERCORRELATIONS OF BEHAVIORAL MEASURES

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ITSC</td>
<td>-</td>
<td>-</td>
<td>.00</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>2</td>
<td>D Score</td>
<td>-</td>
<td>-</td>
<td>-.32*</td>
<td>.00</td>
<td>.12</td>
</tr>
<tr>
<td>3</td>
<td>Children's Napp. Scale</td>
<td>.00</td>
<td>-.32*</td>
<td>-</td>
<td>.11</td>
<td>-.12</td>
</tr>
<tr>
<td>4</td>
<td>Locus of Control Scale</td>
<td>.02</td>
<td>.00</td>
<td>.11</td>
<td>-</td>
<td>.06</td>
</tr>
<tr>
<td>5</td>
<td>Voc. Sub-test</td>
<td>.02</td>
<td>.12</td>
<td>-.12</td>
<td>.06</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .01.
In order to unambiguously interpret the relationship between the independent and dependent (verbal conditioning) variables, the influence of intellectual ability upon these variables should be ruled out. This is particularly important in this study where verbal conditioning is likely to be influenced by intellectual ability. The vocabulary subtest of the WISC was correlated (Pearson r) with all other behavioral measures. Table 12 indicates the resulting correlations, ranging from .02 to .12 are insignificant at the 5 per cent level. It is therefore concluded that intellectual ability is not a confounding factor in this study.

Although the need for approval is an independent variable in this study, its influence as a confounding variable may be evaluated by correlating it with the two other independent variables, the ITSC and Locus of Control Scale. The resulting correlations of .00 and .11, respectively, indicate that Ss' responses to these measures are not confounded by the need to give socially acceptable responses.

IV. Internal Control and Verbal Conditioning

Hypothesis IV predicted a significant relationship between internal control and verbal conditioning. Table 12 indicates that the correlation (Pearson r) between the Locus of Control Scale and the D scores is .01. This
extremely small and insignificant relationship fails to confirm prediction IV.

V. Need for Approval and Verbal Conditioning

A significant relationship was hypothesized between need for approval and verbal conditioning. Hypothesis V predicted that significantly larger D scores would be obtained by Ss with a strong need for approval. This prediction was tested by computing a correlation (Pearson r) between the Children's Need for Approval Scale and the D scores. Reference to Table 12 indicates that the resulting correlation, -.32, is significant at the 1 per cent level, although it is in the opposite direction from the prediction. Thus, there appears to be a significantly inverse correlation between need for approval and responsiveness to social approval.

The possibility was considered that the inverse correlation between need for approval and conditioning may have resulted from an artifact in assigning Ss to the experimental groups. Since the assignment was based on the ITSC scores, it would have been possible for Ss with a low need for approval to inadvertently be assigned to groups where most of the conditioning took place. For this reason, a chi-square was computed on the distribution of frequencies of high and low Napp. scores among the eight experimental groups. The resulting chi-square of 10 (d.f.=7)
is insignificant at the 5 per cent level. Thus, the observed distribution of Napp. scores does not significantly differ from the theoretical distribution. The inverse correlation between need for approval and conditioning could not have arisen from an artifact in the assignment of Ss to the eight groups.

Since the same E administered the Need for Approval Scale and the conditioning procedure to each child, it was decided to analyze the joint influence of need for approval and sex of E upon condition. The results, based on the frequency of effectively conditioned Ss (N = 56) within each cell of a 2x2 chi-square table are reported in Table 13

<table>
<thead>
<tr>
<th>TABLE 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFLUENCE OF NEED FOR APPROVAL AND SEX OF E UPON CONDITIONING</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hi. Napp.</th>
<th>Male E</th>
<th>Female E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lo. Napp.</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

\[ x^2 = 2.43, \text{ d.f.} = 1, \ p > .05 \]

Although the chi-square barely misses significance, Table 13 does indicate that the sex of E tends to influence the relationship between Napp. and conditioning. There is some tendency for high Napp. Ss to be more readily conditioned by a female E than by a Male E. There is a marked tendency for low Napp Ss to be conditioned to a greater degree by a male E in contrast to a female E.
CHAPTER VI

DISCUSSION

This research has indicated that verbal behavior can be effectively conditioned in your children (Graph I). Certain aspects of the conditioning process in children are also characteristic of the manner in which adults condition to social stimuli. The finding that a very small percentage of Ss were aware of the relationship between their response and verbal approval has been consistently reported by investigators of verbal conditioning in adults. Sidowski (1954) reported that only three out of fifty-nine Ss were aware of the contingency between the reinforcing stimulus and the subsequent response. Taffel (1955) indicated that none of his Ss were able to verbalize any awareness of the conditioning process. Thus there is broad agreement that minimal awareness is an integral aspect of the verbal conditioning process. Since the eight experimental groups do not differ in terms of frequency of Ss verbalizing some awareness of the conditioning process, it may be concluded that level of awareness is unrelated to the results pertaining to the hypotheses.
The major hypotheses concerning the joint influence of sex-role identification and sex of the examiner upon verbal conditioning were confirmed. Children with a strong masculine ego-ideal were more effectively conditioned by a male E than by a female E (Table 7). A male E was a more effective reinforcing agent for Ss with a firm masculine-role preference than for Ss with a weak masculine ego ideal (Table 9). The strength of these relationships is indicated by comparing the mean D scores and also by comparing the frequencies of children conditioned among the eight experimental groups (Tables 3, 4).

These results strongly support the basic assumptions of the study. They indicate that a boy with a strong masculine ego-ideal, as expressed by consistent preferences for social objects, activities and persons associated with the male role, will perceive male adults as having more reinforcement value than female adults. The behavior of this child, in contrast with a boy who has a weak masculine ego-ideal, will be more strongly influenced by the support and approval of a male adult.

Although the high-masculine identifiers did condition more to "father" than to "mother," this difference fails to reach significance (Table 6). It seems that the high salience of a male E for these Ss tended to overshadow the reinforcement value associated with "father."
The hypotheses concerning the low-masculine identifiers were not confirmed. As a matter of fact, the results were in the opposite direction from the predictions. Ss with a weak masculine ego-ideal conditioned significantly more to "father" than to "mother" and they were conditioned by a male E almost as effectively as by a female E. These results may be understood in terms of certain characteristics of the sample. All Ss were selected from a "normal" population in the public school system. None of the Ss were described by their teachers as seriously disturbed or as preferring feminine activities. It is therefore likely that virtually all Ss had developed some preference for the appropriate sex-role with considerable variability so far as the strength of this preference is concerned. This development is reflected in the fact that the content and the examiner associated with the masculine sex-role did have some reinforcement value for the low-masculine identifiers.

On the other hand, it is important to note that low-masculine identifiers generally conditioned less than those Ss with a strong masculine ego-ideal. This finding may be explained in terms of the conflict associated with a weak masculine-role preference. A boy's failure to place a high value on the male-role will conflict with cultural expectations and demands for appropriate sex behavior. Failure to internalize these norms is likely to be
particularly stressful for the male child since the various socializing agents are less likely to be tolerant of deviant sex preferences in boys as compared with girls. Since a male child with a weak masculine ego-ideal probably experiences greater conflict and ambivalence about his role than a child with normal sex-preferences, it would be inappropriate to speak of different sex preferences for male children as having equivalent value or meaning. The conflicted child will probably view adults in an ambivalent and confused manner. Thus he would be less responsive to the reinforcing behavior of both female and male adults.

The significant inverse correlation between need for approval and verbal conditioning is directly the reverse of the original prediction. An explanation for this finding is possible in terms of the results reported in Table 13. It indicates that low Napp. Ss were more effectively conditioned than high Napp. Ss, especially when a male E was the reinforcing agent. Therefore, the inverse relationship probably arises from the Ss' tendencies to view the male E as a more rewarding figure than the female E. This perception is expressed by greater conditioning as well as by the tendency to admit socially undesirable attitudes in the presence of the male E. This tendency is indicated by the fact that 65 per cent of the Ss tested by a male E received Napp. scores below the mean of 16.12, while only 35 per cent of the Ss tested by a female E received equivalent scores.
The question arises as to why the female E should be viewed as having less reinforcement value than the male E. Since the experimental procedure occurred in a school setting, the Ss' perception of their teachers (all of whom were women) probably generalized to the female E to a greater extent than to the male E. It is likely that the Ss viewed their teachers as disciplining and controlling figures who expect socially desirable attitudes and behavior. Therefore, the Ss' perception of the female E as a less rewarding figure resulted in a decreased responsiveness to her verbal approval and anxiety about admitting socially undesirable attitudes.

Table 13 also indicates that although the male E was an effective reinforcing agent for low Napp. Ss, high Napp. Ss were slightly more responsive to the female E. One can speculate that the reinforcing effectiveness of the male and female Es are based on different events. It may be that the reinforcing value of the male E is based on the Ss' view of him as a rewarding figure. The female E's reinforcing value may be influenced by the S's concern with conforming to her implicit demands and expectations.

The lack of relationship between internal control and verbal conditioning indicates the need for a clearer conceptualization of the manner in which this dimension is relevant to young children. The Locus of Control Scale is based on the assumption that internal control is a general
trait which is independent of situational influences. Observation of Ss' responses to various items casts some doubt on this assumption. Some items consistently elicited responses indicative of internal control, while others elicited externally-oriented responses. Items involving peer relations (items 3, 4, Appendix B) elicited the former type of response, while items relevant to parental power (items 4, 11) tended to evoke the latter type. Unfortunately, the Locus of Control Scale does not contain enough items relevant to specific situations to test the notion that internal control varies from one situation to the next. It is possible that a child with a strong internal attitude towards parental figures will be more effectively conditioned by adults than the externally-oriented child in a similar situation. The predictive power of the Locus of Control Scale may be increased by introducing more items relevant to specific situations.

Whereas previous research (Sapolsky, 1954) has studied the influences of temporary psychological states upon verbal conditioning, the present research points to the usefulness of exploring the joint influence of relatively stable psychological characteristics and situational factors upon learning without awareness. It would appear the psychological parameters relevant to the socialization process, such as the sexual ego-ideal, are especially
useful in conceptualizing the conditioning process in children.

This study calls into question the common assumption that the results of verbal conditioning are independent of the response content. Typically, content variables are not systematically manipulated in terms of their mutual distinctiveness or relevance to the psychological characteristics of the Ss being conditioned. When content variables are experimentally manipulated in terms of degrees of discriminability, their influence upon conditioning becomes more apparent. For example, Saslow et al. (1960) reported that they were unable to condition plural nouns, but they achieved consistent success with human content variables. These results were attributed to the greater discriminability of the human content. The present study indicates that various content forms subsumed under "human content" vary in their reinforcement value.

The joint influence of situational and personality characteristics of children upon the perception of adults' reinforcement value is a largely unexplored area. Several potentially fruitful research approaches are suggested by this study. One major approach would be to critically examine the often-made assumption that behavior change is a function of intrapsychic, monadic processes which are minimally influenced by situational factors. This assumption
is exemplified in research by members of the non-directive school of thought, who, for example, consider an increase in the frequency of positive self-references as indicative of changes in the self-concept with the therapist having played a minor role.

Future experimental analysis should contribute to a clarification of the concept of sex-role identification. Would measures of sex-role adoption lead to results similar to those in the present study?

Since masculine-role preferences increase with age, it would be interesting to determine whether or not a corresponding increase in the reinforcement value of a male E would occur for older boys. Could highly identified boys be conditioned as readily by their fathers as by a strange male E? The possibility of evaluating the reinforcing effectiveness of actual parents in terms of sex-role preferences should be considered.
CHAPTER VII

SUMMARY AND CONCLUSIONS

The major purpose of this research was to investigate the relationship between sex-role identification in young children and the differential reinforcement value of male and female adults. Sex-role identification was conceptualized in terms of a sexual ego-ideal. It was hypothesized that a male child with a strong masculine ego-ideal, as expressed by consistent preferences for objects, activities and figures associated with a masculine role, would view male adults as having more reinforcement value than female adults. These Ss should also be more responsive to the verbal approval of male adults in contrast with low-masculine identifiers.

Ss with a weak masculine ego-ideal should view a female E as having more reinforcement value than a male E. These Ss should be more responsive to the female Es verbal approval in contrast to high-masculine identifiers.

Auxiliary hypotheses were developed concerning two other personality characteristics. A positive relationship was predicted between need for approval, internal control and the effectiveness of verbal conditioning.
The verbal conditioning paradigm was employed for experimentally determining the reinforcement value of a male and a female adult. The reinforcement value was operationally defined in terms of the effectiveness of verbal approval ("Good") upon the modification of behavior. Brown's It Scale for Children, a semi-projective measure of sex-role identification, was administered to 135 boys between the ages of five and seven. The forty highest scorers (strong masculine ego-ideal) and the forty lowest scorers (weak masculine ego-ideal) were assigned to one of eight groups necessitated by a 2x2x2 factorial design involving high versus low identifiers, male versus female experimenter and father versus mother content. These content variables were included since in addition to the major hypotheses concerning the joint influence of sex of E and level of identification upon conditioning, it was also hypothesized that the term "father" would have more reinforcement value for Ss with a strong masculine ego-ideal while Ss with a weak masculine identification would be more effectively condition to "mother."

The conditioning situation involved the presentation of seventy-five different questions each of which could be answered by "father," "mother," "brother" or "sister." In order to make the conditioning situation more interesting and meaningful to the children, plastic cut-out dolls representing the four figures, were presented to each
child. Depending on the appropriate condition, the verbal response "father" or "mother" was rewarded by verbal approval. Differences in frequency of the rewarded response between the free operant phase (non-rewarded, first fifteen trials) and the last fifteen trial constituted the measure of conditioning.

The verbal conditioning situation was followed by the Locus of Control Scale, the Children's Need for Approval Scale and the vocabulary sub-test from the WISC. Very low correlations between vocabulary and the independent, dependent variables indicated that intelligence is not a confounding variable.

The major hypotheses concerning the relationship between a strong masculine-role identification and the reinforcement value of a male E were confirmed. Boys with a strong masculine ego-ideal were conditioned more effectively by a male E than by a female E. The male E was a more effective reinforcing agent for the high-masculine identifiers in contrast with the low-masculine identifiers. Also, high-masculine identifiers conditioned more to "father" than to "mother," as predicted, but this difference failed to reach significance.

The low-masculine identifiers conditioned in a manner that was in the opposite direction from the predictions. They conditioned significantly more to "father" than to
"mother" and they were conditioned by a male E almost as effectively as by a female E. These results were evaluated in terms of certain characteristics of the sample. Since all Ss came from the public school system and none were described as seriously disturbed or as feminine, it was assumed that they had developed some preference for the appropriate sex-role, with considerable variability among Ss. Therefore, the content and the E associated with the masculine role did have some reinforcement value for the low-masculine identifiers. The generally poorer conditioning among Ss with a weak masculine ego-ideal was ascribed to the conflict associated with inappropriate sex-preferences. It was assumed that this conflict resulted in their viewing adults in a confused and ambivalent manner. Thus, the low-masculine identifiers seemed less responsive to the verbal approval of both the female and male Es.

The unexpected finding of an inverse correlation between need for approval and verbal conditioning was considered in terms of the Ss perception of the male E as a more rewarding figure than the female E. This perception resulted in greater conditioning and in the tendency to admit socially undesirable attitudes in the presence of the male E. The lesser reinforcing effectiveness of the female E was evaluated in terms of the Ss perception of
this figure as demanding conformity and as arousing anxiety about the expression of socially undesirable attitudes. No significant relationship was found between internal control and verbal conditioning.

This research points to the usefulness of further investigation of the joint influences of the psychological characteristics of the Ss, situational factors and response content upon the effectiveness of verbal conditioning in children.
APPENDIX A

QUESTIONS USED FOR VERBAL CONDITIONING
1. Who slept in bed?
2. Who stopped talking?
3. Who liked it?
4. Who was tired?
5. Who said something?
6. Who watched the movie?
7. Who wished for it?
8. Who threw it away?
9. Who sent a letter?
10. Who smiled?
11. Who said, "It's raining?"
12. Who ate a lot?
13. Who closed the door?
14. Who lay down?
15. Who took something from the drawer?
16. Who laughed at the joke?
17. Who saw the house?
18. Who left home?
19. Who walked away?
20. Who watched TV?
21. Who woke up in the morning?
22. Who hurried home?
23. Who felt pretty good?
24. Who waited in the room?
25. Who told a story?
26. Who opened the door?
27. Who wrapped the box?
28. Who picked it up?
29. Who had a very good time?
30. Who said "Goodbye?"
31. Who cut the paper?
32. Who wanted to sleep more?
33. Who promised to do it?
34. Who tied the string?
35. Who got sick?
36. Who talked about what happened?
37. Who finished eating?
38. Who came home?
39. Who put the radio on?
40. Who found something pretty?
41. Who moved to another place?
42. Who hoped to get money?
43. Who read the book?
44. Who heard a sound?
45. Who shook hands?
46. Who pushed the door?
47. Who helped others?
48. Who rode in the car?
49. Who drank water?
50. Who touched the animal?
51. Who turned around?
52. Who cared about it?
53. Who reached for it?
54. Who sat down?
55. Who paid for the candy?
56. Who started to go?
57. Who made something nice?
58. Who worried about something?
59. Who bought the ice cream?
60. Who spoke to the person?
61. Who fixed the broken thing?
62. Who went away?
63. Who worked at it?
64. Who seemed afraid?
65. Who gave it away?
66. Who broke the glass?
67. Who walked in the rain?
68. Who ran to the car?
69. Who washed hands?
70. Who got tired?
71. Who burned the paper?
72. Who wrote the word?
73. Who spent some money?
74. Who noticed the moon?
75. Who invited friends home?
APPENDIX B

THE LOCUS OF CONTROL SCALE
(To be administered orally)

I am trying to find out how children your age feel about certain things. I am going to ask you some questions to see how you feel about these things. When I ask you the question, if you feel the answer is yes, say "Yes." If you think the answer should be no, say "No." Remember, there are no right or wrong answers. It's what you really believe that counts.

1. When somebody gets mad at you, do you feel there is nothing you can do to make that person like you?
2. Do you feel that you can be whatever you want to be when you grow up?
3. When people are mean to you, could it be because you did something to make them be mean?
4. Do you usually make up your mind to do something without asking your mommy first?
5. Can you do anything about what might happen to you tomorrow?
6. When people are good to you, is it usually because you did something to make them be good?
7. Can you ever make other people do things you want them to do?
8. Do you think that kids your age can make people like them?
9. If another child were going to hit you, could you do anything about?
10. Can a child your age have his own way?
11. Is it hard for you to know why mommy or daddy do certain things?
12. When someone is nice to you, is it because you did the right things?
13. Can you try to be friends with a kid even if he doesn't want to be your friend?

14. When someone gets mad at you, can you usually do something to make him your friend again?

15. Can boys your age ever have anything to say about where they are going to live?

16. When you get into trouble, is it sometimes your fault?

17. When nice things happen to you, is it only good luck?

18. Do you often feel you get punished even if you didn't do anything wrong?

19. Will people usually do things for you if you ask them to do it?

20. Do you think you could get anything you want if you tried hard to get it?

21. When bad things happen to you, is it usually someone else's fault?
APPENDIX C

CHILDREN'S SCALE OF NEED FOR APPROVAL
(To be administered orally)

I am trying to find out how children your age feel about certain things. I am going to ask you some questions to see how you feel about these things. When I ask you the question, if you feel the answer is yes, say "Yes." If you think the answer should be no, say "No." Remember, there are no right or wrong answers. It's what you really believe that counts.

1. Do you always help your mommy and daddy?
2. Can you always get things done by yourself?
3. Have you ever been afraid of getting hurt?
4. Did you ever get mad at somebody?
5. Do you sometimes feel angry when you do not get what you want?
6. Are you always careful about keeping your clothing clean?
7. If you could take some candy without paying for it and be sure nobody saw you, would you do it?
8. Do you sometimes think that other boys and girls can do things better than you?
9. Do you sometimes feel like making fun of other people?
10. Do you always like to do what your teacher tells you to do?
11. Have you ever felt like staying up to watch TV instead of going to sleep?
12. When you do something wrong, do you always tell your mommy and daddy?
13. Do you always listen to your mommy and daddy?
14. Do you always do the right things?
15. Is it ever hard for you to make friends with new children?
16. Do you always like to eat everything your mommy gives you?
17. Are you always kind, even to people who are not very nice?
18. Have you ever felt like breaking things?
19. When you do something wrong, do you always take the blame for it?
20. Do you ever want things just because your friends have them?
21. Have you ever felt like saying things that were not nice to other children?
22. Do you feel that your mommy and daddy are always fair?
23. Do you always let other kids play with your toys?
APPENDIX D

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BIBLIOGRAPHY


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AUTOBIOGRAPHY

I, Ralph Epstein, was born in New York City, New York, on September 25, 1935. I received my secondary education in the New York City, graduating from high school there in 1952. I was granted the Bachelor of Arts degree in 1956 and the Master of Science degree in 1957 by the City College of the City of New York. During my graduate years at The Ohio State University, I was a U. S. Public Health Scholar and a trainee in the Veterans Administration Clinical Psychology Program. During the year 1959-60, I interned at the University of Colorado Medical Center.