THE EFFECTS OF NONVERBAL BEHAVIOR ON PERFORMANCE AND ATTITUDES IN THE COLLEGE CLASSROOM

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CHAPTER I

INTRODUCTION

Concern with communication is probably as old as man himself, but the history of scientific investigation of communicative activity begins relatively recently. Only within the past quarter of a century has there been an effort to describe communication as a systematic process. The focus of study has been upon the interchange of words. A review of this literature indicates an inordinate amount of attention to the verbal channel of interactions, almost to the exclusion of other nonlinguistic channels.

Birdwhistell (1970) writing from an anthropological point of view suggests that as literate members of a culture devoted to literacy, we are strongly tempted to believe that words carry meaning and that all other nonword behavior merely modifies it. There are those who feel that words form the natural center of the communicational universe and that all other modes of communication are subsystems of lesser value. Such a decision predetermines the nature of the communicational process. For the kinesicist (Lowen, 1965) silence is just as golden as are those periods in which the linguistic system is positively operative.

This is not to imply that behavioral scientists have not been aware of the existence, if not the importance, of nonverbal communication. The case is best stated by Sapir (1949) who notes:

> We respond to gestures with extreme alertness and one might also say, in accordance with an elaborate secret code that is written nowhere, known by none, and understood by all (p. 566).

It has only been within the last several years that the role of nonverbal behavior has been established as a dynamic part of the communication process. Galloway (1971) agrees with earliest pioneers who studied nonverbal aspects of communication. He agrees that it is the oldest form of communication and that it does reflect the inner feelings of man. The nonverbal is indeed the language of sensitivity. Brooks (1971) states that nonverbal forms of communication are more meaningful than verbal forms. He estimates that during face to face interchanges, nonverbal cues carry 65 per cent of the meaning while 35 per cent is verbal. Present research in the area has concerned itself with specific components of nonverbal behavior (Lindenfled, 1971; Hasse and Tepper, 1972; and Hackney, 1974). These avenues of study include tone of voice, body posture, body movement, gestures and eye contact. Davitz (1964) states "regardless of the technique used, all studies of adults thus far reported in the literature agree that emotional meanings can be communicated nonverbally" (p. 82).

The role of nonverbal behavior in the therapeutic relationship has been identified by numerous authors (Mehrabian, 1969; Ekman, 1964; and Sainsaburg, 1955). For example, Reece and Whiteman (1962) have isolated aspects of body language that portray warmth on the part of the therapist. These include shifts in posture toward the client, direct eye contact and smiling. Clinicians that avoided eye contact and exhibited little nonverbal behavior were perceived as being cold. It was concluded that verbal reenforcement alone was not sufficient for positive interview movement.

There is similar nonverbal research related to the learning environment (Love, 1971; Breed, 1971; and French, 1971). These authors, among others, have indicated the necessity of bringing the nonverbal communication of teachers to a level of conscious awareness. This recognition would enhance their ability to relate to all students. Schusler (1971) indicates that students' self perceptions are to some degree determined by teacher behavior and how it is interpreted by the student. Ekman (1966) and Rosenfeld (1966) have found that a generally higher level of gestural activity results in more positive attitudes toward the sender. Addington (1971) supports the prescription for vocal variety. Variations in the speaker's tone of voice and pitch enhance audience retention.

Increasing evidence suggests that by his nonverbal behavior a teacher can effect both the attitudes and performance of his students. Galloway (1972) describes the situation by stating:

> Without uttering a sound a teacher can indicate he dislikes papers written with dull pencils, likes poetry, or prefers boy students. Without a single word he can convey that he thinks a student is dumb, smart, pretty, ugly, dirty, or unimportant, and the child gets the message (p. 45).

The present study has attempted to delineate which kinds of teacher behaviors would be perceived as most favorable by students. Prior studies have been concerned with the structural characteristics of nonverbal systems or the correlation of external variables with specific nonverbal behaviors (Duncan, 1969). This investigation has described the additive effects of posture, gestures, and other movements on the part of the teacher. It appears that a study of teacher behavior in the college classroom could provide a better base for understanding nonverbal behavior.

Significance of the Study

The present study of teacher nonverbal behavior is significant in that the results could lead to greater sensitivity of this topic by teachers. Rosenthal and Jacobson (1968) suggest that the subtle nonverbal influences in the classroom can sometimes have dramatic results. This research is discussed in detail in Chapter II. It becomes incumbent upon teachers to be aware of their nonverbal behavior and the consequences of it. Furthermore, there is evidence to suggest that teachers can be trained to control their nonverbal behavior (Breed, 1971). These behaviors can be utilized by teachers to make their instruction more effective.

One of the teacher's main goals is to increase the intellectual sophistication of the student. Teacher nonverbal behavior can enhance this process. In addition, student attitudes toward the instructor will be affected by his nonverbal behavior. This research represents an effort to quantify the effects of nonverbal behavior in the classroom. The investigation will specifically examine the effects of teacher's nonverbal behavior on student's attitudes toward him and their cognitive performance.

Statement of the Problem

The problem under investigation in this study is stated as follows: What are the effects of Instructor Nonverbal Behavior on the students' performance in the classroom?

Purpose of the Study

The major purposes of this investigation are in three domains. The first is to identify the effects of teacher nonverbal behavior on the students' attitudes toward that teacher as measured by a teacher performance indicator. The second purpose is to identify the effects of teacher nonverbal behavior on students' cognitive performance as measured by a multiple-choice content test. The final area of interest is to identify the differential effects of a male instructor on male and female students as indicated by their attitudes and cognitive performance.

Definitions of Terms

Definitions of terms and concepts important to this study are listed below:

1. Nonverbal Behavior - that part of the total communicational process presented by the teacher which may reflect thoughts and feelings through bodily attitude and motion, facial expression and gestures, and tone and pitch of voice.
2. Cognitive Performance - the number of correct responses on a content test relating to the lecture material.
3. Instructor Performance Scale - the student's attitude toward the teacher as measured by a sixteen point true-false instrument.

Hypotheses

The following null hypotheses are under investigation in this study:

I. There is no significant difference in the overall cognitive performance of students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to a group of students whose teacher accompanies his lecture with nonverbal behavior.

II. There is no significant difference between the rating of the instructor by students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to a group of students whose teacher accompanies his lecture with nonverbal behavior.

III. There is no significant difference between the attitudes and performance of males and females whose male teacher exhibits no intentional nonverbal behavior during the lecture presentation.

IV. There is no significant difference between the attitudes and performance of males and females whose male teacher exhibits intentional nonverbal behavior during the lecture presentation.

Chapter V includes further discussion of the results of the study, conclusions, and implications for further research.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to review pertinent literature related to this study. Two major divisions will serve to organize the material. First, literature pertaining to the examination of nonverbal behavior by hehavioral scientists will be presented. Next, the use of nonverbal behavior in the learning environment will be discussed. The chapter will be concluded with a summary of these areas of concern pertaining to the investigation.

Nonverbal Behavior and the Behavioral Sciences

Behavioral scientists have long been interested in nonverbal behavior (Freud, 1914; Efron, 1941; and LaBasore, 1947) although it has been rigorously investigated recently. Freud (1905) recognizing the possible disparity between what people say and how they act, wrote:

> He that has eyes to see and ears to hear may convince himself that no mortal can keep a secret. If his lips are silent, he chatters with his finger tips, betrayal oozes out of him at every pore (p. 105).

Birdwhistell (1970) exemplifies the present position when he states:

> To focus exclusively upon the words humans interchange is to eliminate much of the communicational process from view and, thus, from purposive control. Obviously, in such a situation the conditions of context, which give special emphasis to lexical exchange, become critical (p. 109).

From its intuitive origins the study of nonverbal behavior has grown into a precise area of investigation. Allport and Cantrill (1934) conducted a comprehensive study dealing with personality factors predicted from nonverbal behavior. In this study, they established categories that evolved around expressive movements; standing, walking, and related activities; sitting and resting; and communicating and handwriting. From these main categories, they developed some three hundred sub-categories. As stated above, their objective was to ascertain if the personality traits of an individual could be predicted from his nonverbal behavior. Their conclusions revealed that these two factors were somewhat related and very complicated. Their study further indicated that there was a relationship between expressive movement and the inner feelings of a person.

Numerous authors have tried to place nonverbal behavior in perspective in terms of the total communicational system. Ruesch and Kees (1956) suggest that the nonverbal world is more than gestures of the body but it includes all that surrounds us. For example, while driving through an urban area it is possible to distinguish the different sections of the city without speaking a word. The authors go on to explain that the nonverbal correlates of spoken language serve to tell us how messages should be taken. Words involve digital codification while gestures bring about analogic codification. To illustrate the importance of the nonverbal, they discuss gesture as language as seen in actors, clowns, comedians, and especially silent movies.

Dittman (1968) argues that nonverbal behavior is sometimes more important than what is said. As examples he cites love between people

and combat. Both of these involve extremes of emotion. It is possible that as the level of emotion rises, the nonverbal aspects of communication take on greater significance. Mehrabian (1968a), who has worked extensively in this field, has developed a formula that shows exactly the components that contribute to the effectiveness of a message as a whole. The equation stated:

Total Impact = .07 verbal + .38 vocal + .55 facial (p. 53).

As Mehrabian (1968a) indicates, the interpretation of the above equation should be made with caution. These are limitations to actions as compared to words. Language can be used to communicate almost anything. Nonverbal behavior is very limited in range. Usually, it is used to communicate feelings, likings, and preferences, and it reenforces or contradicts the feelings that are communicated verbally.

Theoretical rationale have been advanced by numerous scholars suggesting why nonverbal phenomena are significant to human relationships. Psychologists such as Ekman (1964) and Galloway (1971a) have described assumptions and tenets that are useful in the study of nonverbal behavior. Nonverbal behavior can be viewed as the language of relationships. Silent cues signal changes in the quality and direction of interpersonal relationships. These cues, including those of the face, eyes or gestures are the primary means of expressing attitudes of intimacy, aloofness, concern or indifference. Special positive cues may occur between people implying favorable relationships, while the absence of such cues indicates something else.

A second assumption generally shared by behavioral scientists is that nonverbal behaviors are the primary vehicle for expressing

emotion (Davitz, 1964). Darwin (1856) wrote to this point suggesting that expressions of man were universal; smiles having the same meaning the world over. Although this notion of the universality of emotion is disputed today, Darwin was convinced that the nonverbal was the oldest form of communication from an evolutionary point of view. Words, then sometimes fail to be conveyors of emotional messages; nonverbal behaviors are often more convincing.

Another assumption emphasized by Ruesch and Kees (1956) is that nonverbal cues act as qualifiers in the form of metacommunicative messages that indicate in what frame of reference verbal statements should be understood. For instance, a person of authority who lacks a certain firmness of voice will be interpreted as being less forceful. Hall (1959) states that those of us who keep our eyes and ears open can read volumes into what we see and hear going on around us. Shakespeare, a behavioral scientist of long ago speaking through one of his characters said: "Your face, my thane, is a book where men may read very strange matters."

A postulate shared by behavioral scientists in several fields is that nonverbal behavior provides a leakage channel which is difficult to censor or control (Ekman and Friessen, 1969). Nonverbal behaviors give one's true feelings away, while verbal communications are relatively easy to control. Verbal language provides immediate feedback, one can hear himself. People often operate on the faulty assumption that others will grasp what I'm saying because I understand myself.

It is difficult to monitor one's nonverbal messages because little feedback is available as we cannot observe ourselves. Others may comment on what is said but little information is shared

concerning body movement and expression. Our culture lacks a useable language for discussing nonverbal behavior and people are hesitant to point out other people's nonverbal behavioral idiosyncracies. Although we can assume that we are much less aware of our nonverbal than our verbal behavior the writings of Goffman (1959) present another view of this topic. He indicates that nonverbal behaviors can be managed to achieve certain effects. He emphasizes the idea that people in everyday life take on roles for the expressed purpose of making the proper impression. The management of expression is not easy. Everyone is not as successful in behavioral management as the politician, the used car salesman or some teachers. Nonverbal cues in general are less manageable and more revealing than verbal cues.

A final tenet is that certain sets of nonverbal cues and responses are learned as part of role-taking activities. These signals provide unique information apart from verbal information. Information seekers, including teachers and students, will always search for extra data when they are not satisfied with verbal information alone. This condition of discontent occurs when people are (1) unwilling or incapable of verbalizing; (2) unapproachable to obtain information; or (3) uncertain about what is being said. In effect, body language speaks loudly when verbal information is missing or in doubt.

A question that has encouraged nonverbal research is: What are the relative effects of different nonverbal channels in determining the nature of the communication? Stefflre (1965) and Bordin (1968) state that nonword behavior has been clearly established as part of the communicational system in counseling. But what mechanisms are involved in the transmitting of nonverbal cues between clinician and

client? A number of studies including those of Thompson and Meltzer (1964) and Walz and Johnson (1963) indicate that emotions can be interpreted from facial expressions alone.

Studies have shown that judges who are allowed only visual monitoring of subjects can make reliable, psychologically meaningful statements about the expressors' current emotional state (Shapiro, 1968). In a later effort, Shapiro, Foster, and Powell (1968) investigated the nonverbal cues of therapist genuineness, empathy, and warmth. Trained and untrained judges rated photographs of counselors. The reliability of such judgements was also tested. The reasonably high level of agreement of judges within and between groups suggested that therapeutic attitudes were communicated through nonlinguistic behavior. Masking of parts of pictures showed that subjects were responsive to facial rather than bodily cues.

In a similar investigation Dittman (1965), found that when judges were asked to describe another person's emotional state they were influenced more by the face than the body. Investigating the same concept, Ekman (1965), discovered that the head emits more information about the nature of the emotion being expressed while the body provides more information about intensity. A more recent study by Hackney (1974), attempted to delineate the relationships between facial gestures and subject's expression of feeling. He studied the effects of four levels of nonverbal facial gestures. These included the client having no expression, head nod only, smile only, and head nod and smile combination. The treatments were video-recorded for standardized presentation to seventy-two female subjects. Both a male and female were seen on videotape. The four conditions ranging from no expression

to head nod and smile produced significantly greater amounts of feeling and self reference statements for the female experimenter; the opposite was true for the male. It was hypothesized that the female subjects were threatened by the male presenter. Although a sex differential was found it was clearly indicated that facial expression can produce interpretation of feeling.

In a more complicated study, Zaidel and Mehrabian (1969), explored the relationship between communicating and inferring abilities in the facial and vocal channels by persons differing in approval-seeking tendencies. Two separate experiments were carried out involving the encoding and decoding of photographs. Subjects took their own photographs, trying to express different attitudes. During the decoding phase, subjects were asked to rate tape-recorded vocal expressions and photographed facial expressions. It was found that the facial channel was generally more effective than the vocal channel for communicating attitudes. Negative attitudes were more effectively communicated than positive attitudes. Females were considerably better than males at communicating variations in negative attitude, although males were somewhat better communicators of positive attitude. In addition to facial gestures there are many other channels of nonverbal communication.

Koch (1971) has compiled a list of commonly expressed nonverbal behaviors that carry important messages. These include: gestures, those of the foot, body, head, and face; posture, whether a person is standing or sitting can denote weariness or alertness; skin, changes such as pallor, perspiration, redness, and blushing; proximity, generally we avoid something which we fear; voice, includes tone, intonation, volume, pitch, and quivering; breathing, it can reflect

feelings such as excitement, and the eyes, which he claims to be the most powerful nonverbal one. In studies reported by Davis (1973), it was found that by carefully observing the eyes of another person, information can be obtained concerning the individual's daydreaming activities, emotional feelings, and, to some degree, his thought processes.

Gibson and Pick (1963) studied eye contact in triads. When two of the three subjects within a triad shared eye contact, the third was not included in the verbal behavior. It was concluded, then, two people sharing eye contact excludes others. Exline and Winters (1965) found a relationship between the frequency of eye contact and the nature of the communication. When positive attitudes were conveyed there was more eye contact between the subjects involved in the transition while the expression of negative attitudes brought about significantly less eye contact. To develop this concept further, Exline, Gray and Schuette (1965) designed a situation where one person was evaluating another.

They concluded:

> . . . that in any evaluative setting, if the evaluator was being positive, eye contact was more frequent on the part of the person being evaluated than when the evaluator was being negative (p. 130).

Scheflen (1964) has found a synchronous relationship between verbal and nonverbal behavior. He recorded a number of psychiatric interviews as the source of his data. American speakers shift their head and eyes to signal the end of structural units or ideas. Tone and pitch of voice also serve as cues for the expression of words.

In an early attempt to determine the effects of vocal pitch, Birdwhistell (1952) examined many audio-tapes to get at points of transition. Low pitch was associated with termination points while high pitch inferred questioning. Although there was variation between subjects, little was found within subjects. Vocal pitch, then was a consistent measure of quality of verbalizations. It was possible that verbal content could have influenced the ratings of the judges.

A most interesting experiment was conducted by Starkweather (1961) that overcame the shortcoming, verbal contamination, of Birdwhistell's (1952) work. His subjects listened to audio-tapes but this time the speakers' voices were electronically "scrambled" so that the words of verbalization could not be understood. Judges could agree on which emotion was being expressed by the speaker through his pitch, rate, and volume of expression, not content. What was said was less important than how it was said. In a related study, Deihl, White and Satz (1961) suggested that the above vocal measure of pitch, rate, and volume bring about more attentive audiences. After having many groups of subjects listen to lectures and respond to content tests the researchers concluded that vocal variation on the speaker's part enhanced audience retention of the material presented.

Of special concern to counselors is the communication of empathy. It is presumed to be one of several core conditions which pervade positive therapeutic relationships (Charkhuff and Berenson, 1967). Although the concept of empathic communication has provided extensive values, the understanding of the concept is defined principally by its verbal components. Hasse and Tepper (1972) set out to ascertain the relative contribution of selected verbal and nonverbal components to

the communication of empathy. Their most significant finding centers around the fact that with respect to the mean effects the nonverbal components in the model accounted for slightly more than twice as much variance in the judges level of empathy as did the verbal message. This finding indicates that empathy is communicated in more than one channel and that to rely on solely the verbal content of the message reduces the accuracy of the judgement by 66 per cent. These findings are in agreement with those of Mehrabian and Ferris (1967) who noted that facial expressions accounted for approximately one and one-half times as much variance in the communication of positive attitude than did vocal components.

In a later study, Mehrabian (1968b) found body attitude is an indicator of positive regard. Counselors leaning forward were described as having more positive regard for their client. Those who leaned away were considered to be cold. Clients who avoided eye contact were described as expressing dislike for the counselor. This research suggests that the relationship between counselor and client is mutually influencing. Charney (1966) has outlined this relationship. He stated that high levels of postural congruence between speaker and listener are associated with specific and present-bound verbalizations. Incongruent postures are associated with self-oriented, non-specific, self-contradictory, and non-referenced verbal material. He concluded that postural congruence is a sign of rapport in counseling.

Other researchers have attempted to further explore the nonverbal aspects of the counseling relationship. Mehrabian (1969) stated that arms folded in the akimbo position indicate that the person is

expressing dislike. Harman (1971) indicates that during the interview hostility may be perceived when there is shoulder shrugging, fist making, nose rubbing, or interest in the teeth and finger nails. He cautions that these indicators of hostility should be viewed within the context of what is being said. In a more positive vein, Reece and Whitman (1962) have indicated the body language components that signal warmth. Those behaviors that lead to being perceived as a "warm" person include shifts in posture toward the other person, smiling, direct eye contact and hands remaining still. "Cold" persons were described as those who look around the room while engaged in conversation, little smiling, and a drumming of the fingers was also found.

In a series of three experiments Mehrabian and Williams (1969) explored the hypothesis that the degree of liking which is nonverbally communicated is a direct correlate to intended persuasiveness. The nonverbal communication of liking and status to a client were selected because the related concepts of communicator trustworthiness and expertness have been found to be correlated with his effectiveness in eliciting attitude change (Insko, 1967). A second reason for selection is that liking and status have been identified as two primary referents of nonverbal communication (Mehrabian, 1969). The findings supported the hypothesis and indicated that the intended persuasiveness of a communicator and the judges of perceived persuasiveness of his communication were correlated.

The judged persuasiveness of communications was found to be positively correlated with the following variables: more speech volume, higher speech rate, more eye contact with the addressee, more

facial activity, and a higher rate of gesticulation. Numerous authors have suggested the positive effects of greater amounts of activity on the part of the speaker. Ekman (1964) and Rosenfield (1966) both indicate that higher levels of gestural activity result in more positive attitudes toward the sender.

Laney and Moravac (1967) were able to choose subjects who function at high levels of interpersonal skills based upon degrees of gestural activity. It was found that a high activity level was a good prediction of the potentially therapeutic person. In another study (Condon and Ogston, 1967) students viewed counselors on video-tape and responded to questionnaires. Those counselors in the "active" condition were described by the subjects as friendly, casual and carefree. The "still" condition counselors were perceived as being more precise, reserved, serious, orderly, and controlled. The counselors that were more active had increased attractiveness for the students.

Client satisfaction was also related to gestural activity in therapy (Lennard and Bernstein, 1960). They surveyed large numbers of clients and found greater satisfaction in those sessions in which the therapist was more active. A possible explanation for this type of client satisfaction can be drawn from the work of Dittman (1960). He provided evidence that emotionally laden verbal material is associated with body movement and this verbal material is associated with meaningful transactions. He tried to isolate specific, nonverbal behaviors with the expression of certain emotions. For example, he concluded that head and leg movement can indicate anger while few head and hand movements coupled with a lot of leg movement was indicative of depressed moods. Mehrabian (1971) while discussing nonverbal aspects of

self disclosure suggests that when people try to emphasize a position of power they emit little nonverbal behavior.

Strong, Taylor, Bratton and Loper (1971) studied the influence of counselor's nonverbal behavior on student's description of them. Based on video-taped segments of counseling sessions, the subjects were asked to rate the counselors. A positive correlational relationship was found between counselor movement and student ratings. The counselors that exhibited the most movement received the highest ratings. The frequency of gestural activity is a gross but important aspect of nonverbal behavior. If the counselor's movement is congruent with his verbal messages he need not be concerned but if his nonverbal behavior alters verbal cues he must consciously control his body language to influence his impact on students.

Research by behavioral scientists into several areas of nonverbal behavior has been presented. The nonverbal channels discussed have been the face, eyes, pitch and tone of voice, body movement, and gestures. These were chosen as they are especially applicable to the present research effort. The relevance of these channels will be discussed further in Chapter III.

Nonverbal Behavior and the Learning Environment

The teaching-learning process is essentially communication. Teachers and students alike are concerned with obtaining a desired response and a measure of success is whether they obtain it. However, they are not aware of the significance of the nonverbal factors of their interactions. Neither students nor teachers have been instructed as to the meaning of their actions. It is rare that a

teacher structures interactional consideration into the curriculum. Much of this knowledge is acquired from having to be in school and from role definitions. Although one knows that feeling can be conveyed through facial expression, eye contact, body movement, and gestures, he may fail to comprehend when and how feeling is communicated.

The research challenge facing students of nonverbal behavior is the collection of data supporting the hypothesis that nonverbal cues provide crucial information unobtainable from verbal behavior. Much of the research dealing with classroom behavior has been based on verbal messages as recorded in typescripts and on tape (Galloway, 1971b). Verbal research in the classroom has been fostered by several factors. Most influential has been the eagerness of researchers to study the contents and patterns of classroom interactions. Educators are most concerned about the impact of their verbal influence on students. Telling students what to do and how to do it is too often viewed as the apex of teaching. Mehrabian (1971) has suggested that the role of nonverbal behavior in education has been played down.

> The de-emphasis of nonverbal communication in education helps to perpetuate a situation in which socially unacceptable feelings must be expressed in behaviors other than speech and cannot be recognized officially as part of a person's communication (p. 47).

Academicians should be interested in the nonverbal components of communication in that this type of understanding will add depth to their interactions. In addition, Koch (1971) has suggested two reasons of special note for teachers. First, if we only listen to the words of students, we are only partly understanding. Teachers are generally very verbal; it is not surprising then that they depend

on words. The second reason to understand body language is that teachers should be aware of what facets of their behavior are facilitating and which dimensions set up barriers to the learning process.

In an effort to describe teacher behavior, Grant and Hennings (1971) have outlined what the teacher does when he teaches.

> At the physical level, he is performing as a conductor, using motions and gestures that often bear a striking resemblance to the gestures and motions of a musical conductor. The teacher is also performing as an actor, building interest and clarifying meanings with his body. In addition he is performing as a technician, wielding aspects of the environment. Finally, the teacher is performing as a human being, bringing with him into the classroom personal motions that do not have an instructional purpose. Each of the categories of physical motion is thus based on a nonverbal role (p. 81).

Although the teacher performs nonverbally as conductor, actor, technician, and person, he does not play each role in equal proportions. Of all the motions used by a large sample of teachers, 77.9 per cent were instructions, 22.1 per cent were personal (Grant and Hennings, 1971). Analysis of this data revealed that this restricted population of case study teachers used more conducting motions than acting or wielding motions. The teachers studied used very little acting motions. Within the conducting category, the teachers primarily employed motions that controlled student participation in the learning situation; relatively few motions (less than six per cent) were used to obtain attending behavior.

Galloway (1968) developed another design for looking at teacher activity. It seems to be more comprehensive than the model outlined above. This framework of communication consists of a sender, a message, a channel, and a receiver. A model of instructor's nonverbal communication ranges from encouraging to restrictive. It can be

schematized according to six pairs of antithetical characteristics: congruous-incongruous, responsive-unresponsive, positively-affective--negatively affective, attentive-inattentive, facilitative-unreceptive, and supportive-disapproving. A further analysis of restrictive and encouraging teacher behavior can be found in Appendix A. The effects of nonlingual communication may be brought about through such events as the use of space, teacher travel, use of time, and control maneuvers. Structuring, then, can afford teachers greater flexibility in the use of their body language. Do teachers spend enough time structuring?

Arno Bellack (1961) speaks to this point in Language of the Classroom which reports the results of an investigation into the language behavior of teachers. According to his study, done at the secondary level, teachers tended to function pedagogically primarily as solicitors, secondly as reactors and lastly as structurers. Although the Bellack study did not involve an analysis of nonverbal behavior, his results were replicated by Grant and Hennings (1971) in which both verbal and nonverbal components of teacher moves were considered.

Study of actual video-tapes of teachers suggest that they seem to use the moves in a rather repetitive, chainlike fashion. They solicit-react-structure, solicit-react . . . in almost endless chains. A student interjects a question to which the teacher responds, and this breaks the chain. This description gives rise to the question: To what degree are students influenced by what they see from the teacher?

Loss (1973) carried out an investigation to determine to what extent teachers' nonverbal behaviors in the classroom reliably

describe real feelings and attitudes. Seventeen secondary level teachers were observed, an analysis of the data showed that the preference claimed for a particular teaching style was frequently inconsistent with their observed teaching styles. There was a high degree of agreement between the nonverbal behaviors of the teachers and those of the students.

These results suggest strongly that students are influenced by what they see from the teacher. Furthermore, teachers seem to have an unclear perception of what they themselves are doing nonverbally. This indicates that teachers are not aware of the consequences of their nonverbal messages. Without realizing it, teachers are expressing their expectations of students nonverbally. Schusler (1971) has related teacher behavior to the perception of student attitudes toward himself by the teacher. He found that students behave in ways that are expected of them by their teacher. If a teacher perceives a child as bad, the child being aware of the teacher's nonverbally expressed feelings, will "misbehave."

Davidson and Lang (1960) investigated the relation between children's perceptions of their teacher's feelings toward them and the variables of: self-perception, academic achievement, and classroom behavior. They found that there was a positive correlation between children's perceptions of their teacher's feelings toward them, and children's perceptions of themselves. In behavioral terms, it was predicted that the more favorably the child's perception of himself, the more positive was his perceptions of the teacher's attitude toward him. There also existed a positive relationship between favorable perceptions of teachers' feelings and good academic

achievement. The final variable, classroom behavior was positively correlated with favorable perception of teachers' feelings toward the students. More recent studies have indicated similar effects of nonverbal behavior in the classroom.

Rosenthal and Jacobson (1968) found that subtle nonverbal influences can sometimes have dramatic effects in the learning environment. The researchers gave I.Q. tests to elementary school pupils prior to their entering for the fall term. Randomly (not according to scores) some students were labeled as high scorers on an "intellectual blooming test" which indicated they would show unusual intellectual development in the following year. Teachers were given this information. These students showed a sharp rise on I.Q. tests given at the end of the year. The experimenters attribute this to teacher expectations and to the way these "special" students were treated.

> To summarize our speculations, we may say that by what she said, by how and when she said it, by her facial expressions, postures, and perhaps by her touch, the teacher may have communicated to the children of the experimental group that she expected improved intellectual performance. Such communications together with possible changes in teaching techniques may have helped the child to learn by changing his self-concept, his expectations of his own behavior and his motivation as well as his cognitive style and skills (p. 84).

These studies began to give some idea as to the power of teachers' overall behavior and its impact upon students.

The nonverbal behavior of instructors serves as cues to students (Knapp, 1971 and French, 1972). In order to check the fidelity of verbal statements, students read the meanings behind nonverbal expressions. Consider the following instances as representative of the variety of educational nonverbal cues: the frantic hand waver

who is sure he has the correct answer, the student who is sure he does not know the answer and tries to avoid any eye contact with the teacher, the teacher who requests student questioning and criticism but whose nonverbal actions makes it clear he will not be receptive, the variety of techniques used by students to make sleeping appear to be studying or listening, or the professor who announces he has plenty of time for student conferences, but whose figiting and glancing at his watch suggest otherwise.

Grant and Hennings (1971), after analysis of video-tapes with actual classroom performances of teachers, identified fundamental problems associated with nonverbal cues generated by these teachers. The problems identified were of three types. The first was that of sending one message verbally and another conflicting message nonverbally, the verbal statement that says one thing and a nonverbal message that implies the opposite. The results of contradictory messages can be a source of confusion for the student. The second problem was that of generating insufficient nonverbal cues. Body language supports verbalizations by repeating, substituting, complementing, or accenting parts of the verbal message. Too little nonverbal stimuli generated by the teacher may have a number of results including wordiness, lack of clarity, lack of variety, lack of stimulation or lack of emphasis. The third type of problem associated with the generation of nonverbal cues was that of excessiveness. Anything carried to an extreme can become distracting. Teacher gestural activity became distracting when the motion was inappropriate or overstimulating. A vivid example was cited by the authors that included the following:

> We remember a college English professor, a Harvard Ph.D., who would run around the room in order to describe a run-on sentence, in essence he became the run-on sentence. To make clear a dangling participle, he dangled himself over the side of the desk. Speaking of himself and his teaching, he claimed he was absolutely uninhibited in his teaching. If a motion added to the instruction, he would use it (p. 82).

The question of whether the quality or quantity of instructors' nonverbal behavior is a function of personality has been investigated by researchers with differing results. Evans (1969) developed a reliable category system for observation of teacher behaviors and determined what relationships existed between observed behaviors and measures of personality. Teacher behaviors were encoded from videotape recordings onto a data record using 10 second intervals. Videotape recordings of eight secondary teachers were analyzed. The Guilford-Zimmerman Temperament Survey was administered. Non parametric statistics were used to correlate the behavioral and personality data. The instrument met the stated definition of a reliable category system. Positive correlations were found between the behavioral and personality data, but they were less than one would expect to find by chance alone. These results are typical of those studies that have tried to find relationships between nonverbal behavior and measures of personality. When researchers have become more specific in terms of variables investigated, the results have been more definitive.

Miller (1961) examined the relationship between the personality variable of security and teacher movements on the elementary school level. After analyzing the movements of many grade school teachers he found significant differences between those teachers that were judged to be secure and those that were judged to be insecure and anxious

tended to establish territorial rights around their desk. Most of their time was spent in the area surrounding their desk. It was hypothesized that for these teachers the desk represented authority, and thus helped them to feel more secure. The opposite was found to be true of secure teachers, they used all parts of their classroom. They did not isolate themselves behind their desks as a source of comfort. In addition to studying personality correlates of nonverbal behavior some educational researchers have investigated the effects of specific nonverbal behaviors and their relationship to learning.

Breed (1971) conducted a series of experiments designed to determine the effects of a lecturer's degree of eye contact upon his teaching effectiveness as measured by audience retention and audience ratings of the lecturer. In the first experiment, a male lecturer addressed small groups of female students in a laboratory setting. A 2x4 factorial design was employed with four levels of lecturer's gaze at the eyes of the students. These included gaze, preferred gaze, excluded gaze, and no gaze. The students evaluated the lecturer and took a short content test. The results showed that the lecturer's gaze affected both dependent variables. The second experiment used two levels of gaze and two levels of movement, with methodology and variables similar to the first experiment but with large groups of male students in a classroom setting. No significant differences were found in the results. Experiment three investigated the effects of a video-taped lecturer's gaze and most subjects, regardless of the experimental condition, indicated a positive change in attitude. Experiment four used a similar procedure to the first experiment but with more subtle manipulations and greater control of the lecturer's

gaze. No significant results were found. The author concluded that future research should involve experimentation in actual classrooms to explore the nonverbal behavior of effective and ineffective teachers.

As indicated, teacher behavior is an important dimension of the effects of nonverbal behavior in the classroom. Another factor that influences the effects of teacher's nonverbal behavior is the nature of his student population. These factors include age and grade level of the students, verbal level, emotional level, and socio-economic background. With regard to the last factor, Bernstein (1961) found that teacher's body language had differential effects on students from varying socio-economic groups. The results indicated that students from the lower socio-economic levels relied more heavily on the nonverbal behaviors of their teachers. It was suggested that the students' reliance on their teacher's motions was their way of compensating for weak verbal abilities.

More recently, Middleman and Hawkes (1972) carried out an experimental field study of the impact of nonverbal communication of affect on children from two socio-economic backgrounds. The differential effects of three values of non-word communication on the productivity of inner city and suburban fourth graders were explored. Eight categories of the nonverbal were selected, an experimental teacher was trained to employ them while at the same time enacting either a positive, negative, or neutral affect style. Three tasks were utilized as dependent measures: accuracy in following directions, accuracy in hearing and extracting information from a verbal context, and amounts of words produced in a required essay. The results

showed that the middle class students responded to all affect styles with no apparent differences. The lower socio-economic class students responded differently from the other two on the tasks under the negative affect-style. Differences in students' backgrounds did produce various levels of response to their teacher's body language.

An important consideration in the classroom is the teacher's ability to accurately assess cognitive visual feedback; to be able to tell if he is being understood by the students. Jecker, Mccoby and Breitrose (1964) investigated teacher's accuracy in judging students' comprehension. Teachers viewed a silent film of students' facial expressions while being taught an algebra lesson. The teachers were then asked to rate the progress of the students involved. They judged student comprehension highly inaccurately. The teachers were then given eight hours of instruction as to the nonverbal cues that students were expressing. Following this period of instruction they viewed another video-taped situation and their accuracy in depicting meaning in the students' nonverbal behavior increased significantly.

These results suggest that teachers can be taught to become more aware of the nonverbal behaviors of their students. Additionally, there is no reason to believe that teachers cannot become more aware of their own nonverbal behaviors. French (1971) has developed a program at the University of Tennessee to help prospective teachers understand nonverbal behavior in the classroom. The program is divided into four sections: pupil assessment, analysis of environmental communications, teacher self-assessment, and development of curriculum and instruction in human communication. Love and Roderick (1971) have begun a similar program at the University of Maryland. Prospective

teachers become more aware of the nonverbal cues of themselves and others.

Mehrabian (1971) points to the possible contributions of such programs when he states:

> People who have a greater awareness of the communicative significance of actions not only can insure accurate communication of their own feelings but also be more successful in their intimate relationships, in artistic endeavors such as acting, or in work that involves the persuasion, leadership, and organization of others. There are those, however, who somehow are constantly misunderstood; others whose nonverbal style discourages friendships and causes them to live lonely and isolated lives. Most can benefit considerably from greater awareness of their social style, the effect it has on casual and brief interactions with others or its more general effect on their social life (p. 1).

It is hoped that the present study has increased the awareness of nonverbal behavior and diminished the chances of inadvertent communication that can have unfortunate consequences.

Summary

Two major areas of research have been discussed: nonverbal communication as studied by behavioral scientists and the effects of nonverbal communication in the classroom. Many of the studies presented have dealt with specific nonverbal correlates of the spoken word. The focus of the present study has been to examine the additive quality of nonverbal behavior as it is a rich source of information that can be observed with profit.

CHAPTER III

RESEARCH DESIGN

Introduction

Literature cited in the preceding chapter has established the importance of nonverbal behavior in all human interactions, especially those between clinician and client and teacher and student. The purpose of this chapter is to describe the research methodology employed in the present investigation. Included will be a description of the subjects, preparation of video tapes, instrumentation, data collection, and statistical analysis of the data. The discussion will be summarized at the end of the chapter.

Subjects

The subjects involved in this investigation were students attending Oklahoma State University. All subjects were enrolled in Introductory Psychology, Psych. 1113, during the Fall semester, 1974. The sample of 84 subjects, 44 females and 40 males, were drawn from a total population of approximately 1500 students enrolled in 20 sections of Introductory Psychology. Five sections were randomly chosen from which all students in those sections had the opportunity to participate. There was no reason to assume that the subjects selected for this investigation differed significantly from students enrolled in other sections of

Introductory Psychology. The treatment of the subjects met the standards of human experimentation as prescribed in the American Personnel and Guidance Association's Code of Ethics.

Upon arriving at designated time periods the subjects were randomly assigned to one of two experimental groups. Within each time period the different groups of subjects, in different classrooms of equal dimensions, viewed and responded to the video tape presentations. In all transactions involved with the two groups, strict confidentiality was maintained.

Preparation of Video Tapes

During the Spring semester, 1974, a pilot study based on the present investigation was conducted to familiarize the researcher with all aspects of the experiment. At that time, two video tapes were produced by the same professor and containing the same lecture material. The difference between the two tapes was the amount of nonverbal behavior emitted by the instructor. In the first condition the instructor exhibited no intentional nonverbal behavior while in the second condition the instructor was actively engaged in nonverbal behavior during the presentation. Both lectures were video taped through a one-way mirror. The professor stood behind a podium, allowing for greater standardization of the two conditions. Thus, nonverbal behavior in this study was limited to trunk movement, gestures of the arms, hands, and face, and tone of voice.

In order to avoid unconscious nonverbal gesturing in the first condition, the podium was very useful in that the instructor held onto the sides of the podium top to control for nonverbal movement. This

first set of tapes were approximately 22 minutes in length. It was discovered that a 22-minute lecture was short on content in terms of the number of multiple-choice questions that could be derived; as a result, it was hypothesized that there was no significant differences between the two experimental groups as indicated by the cognitive instrument. It should be noted that the pilot study, using a similar population to the one engaged in the present investigation, produced significant differences between the two groups of subjects as to their attitudes toward the instructor as determined by the attitudinal instrument (Appendix B). This same instrument was used in the study presented here.

The subject matter of the stimulus lectures involved a discussion of parental types and the development of internal control as suggested by Julian Rotter (Rosenthal and Jacobson, 1968). This topic was chosen because the students enrolled in Introductory Psychology would have no formalized prior knowledge of the subject. In addition, it was felt that this presentation had a message that would be of benefit to all students involved in the experiment. The present investigation embellished the lecture in terms of length so that a greater number of multiple-choice questions could be generated (see Appendix C for a transcript of the stimulus presentation).

The pilot study proved in many ways to enhance the level of sophistication of this investigation. Other modifications of the production of the video tapes were employed. The instructor portrayed on tape was a graduate teaching assistant in the department of Applied Behavioral Studies. The training procedure involved several meetings during which time the instructor familiarized himself with the material

to be presented as well as the video tape techniques involved. The researcher served as producer, director and cameraman. In addition, the instructor viewed the video tapes that were used in the pilot study. Following several rehearsals which were needed to enhance the performance of the instructor, the final set of stimulus video tapes were completed. It was necessary for the instructor to learn to consciously control or limit his nonverbal behavior in the still condition and learn to nonverbally accentuate verbal messages in the active condition. In both conditions, the instructor's nonverbal behavior or lack of it was not so exaggerated that unreal situations were produced.

Instrumentation

Two instruments were employed in extracting the data for this investigation. They included an attitudinal measure of the instructor and a multiple-choice test based on the information presented during the stimulus lecture.

The attitudinal measure was based upon the Purdue Instructor Performance Indicator developed some years ago to measure the classroom climate as created by the teacher. This instrument was substantially modified for the present investigation to measure those student observations that were pertinent to this study. There were 16 items to which all subjects responded. The statements describing the instructor were worded as both positive and negative descriptors. If all of the statements were worded in positive terms, it would have created a possible bias in responses (see Appendix B).

The Kuder-Richardson Formula for estimating reliability was utilized in the statistical treatment of data obtained from the attitudinal measure (Fox, 1969). Utilizing a sample group of 30, a mean reliability coefficient of .78 was determined. The Kuder-Richardson Formula for estimating reliability is presented as follows:

$$r = \frac{n}{n-1} \qquad \frac{\alpha^2 - \Sigma Pg}{\alpha^2_t}$$

where

n = number of items in test

P = proportion responding in some specified manner

g = 1-P

$\alpha^2_t - \Sigma Pg$ = sum of the covariance terms in the summation of item covariances used to express the total test variance.

The cognitive measure was a multiple-choice instrument developed to estimate the subject's retention of the stimulus lecture (see Appendix D). The results of the pilot study indicated that fifteen items were not sufficient for indicating the differences between the experimental groups. The lack of significance was attributed to a truncated sample resulting from too few questions. It was decided to lengthen the lecture and therefore have a larger pool of information from which to draw questions. The stimulus lecture was protracted from approximately 22 to 32 minutes. An additional eight items were then added to the original instrument to provide for greater power of the test.

Content validity was used to determine the appropriateness of the instrument. After viewing the video tape presentations a table of specifications was developed to assure that the test items were

accurately drawn from the lecture. To accomplish this a grid was established, listing lecture objectives as compared to content. Three judges were administered the instrument after viewing the stimulus presentation. Their responses to the instrument supported the experimentor's assumption that content validity had been established for the cognitive instrument.

Data Collection

Data for this study was obtained from the Instructor Performance Indicator and the multiple-choice content test. Several procedures were utilized in preparing the test data for statistical treatment. All responses were transferred from the testing instruments to I.B.M. cards. The only additional information beyond responses to test questions was the sex of the respondent.

All questions on the cognitive instrument had four stems from which to choose, only the correct responses appeared on the I.B.M. card. A score of the total number of correct responses was obtained for each subject. Every subject was given a number and his scores were placed next to it.

The responses from the Instructor Performance Indicator were transferred to I.B.M. cards. Responses indicating a favorable judgement about the instructor were coded as "True" on the I.B.M. cards. Responses negatively describing the instructor were tabulated under the "False" column on the I.B.M. cards. If the "No Comment" category on the Instructor Performance Indicator was checked by a subject that response was omitted.

Statistical Analysis

Statistical analysis was performed by the investigator, using the calculators in the Statistics Laboratory in Gunderson Hall at Oklahoma State University. As in the pilot study, reliability was determined for the Instructor Performance Indicator utilizing the Kuder-Richardson Formula for estimating reliability.

Means for each experimental condition were tabulated using the following formula:

$$M = \frac{\Sigma X}{N}$$

where

M = arithmetic mean

Σ = "the sum of"

X = each of the scores in turn

N = number of scores

The appropriate statistic to test the differences between the means which reflects the three major hypotheses was Fisher's t Formula (Fox, 1969). It is presented as follows:

$$t = \frac{M_1 - M_2}{\frac{\Sigma x_1^2 + \Sigma^2_2}{N_1 + N_2 - 2} \quad \frac{N_1 + N_2}{N_1 N_2}}$$

where

$M_1 + M_2$ = means of the two samples

$\Sigma x_1^2 + \Sigma^2_2$ = sums of squares in the two samples

$N_1 + N_2$ = numbers of cases in the two samples

This treatment yielded a measure of the difference between the two experimental conditions on both attitudinal and cognitive instruments. The third hypothesis was tested with similar design using Fisher's t Formula. The I.B.M. cards were divided within each experimental group as to sex of the respondent. They then were compared within each experimental condition to ascertain if the sex of the instructor produced differential effects.

Summary

Chapter III has presented the research methodology utilized in this investigation. First, the selection and assignment of subjects was discussed. Next, the preparation of the video tapes was described. This was followed by a discussion of the instruments employed in this study. Finally, the collection of the data and statistical treatment was explained. The following chapter will present the results of the investigation.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

The data for this study was analyzed according to the procedures outlined in Chapter III. The purpose of this chapter is to report the findings of the statistical treatment. Each of the four hypotheses presented in Chapter I will be restated with the corresponding results. In addition, the findings will be presented in tabular form (Tables I and II). Following will be a discussion of the findings and a summary statement.

Results Related to Hypothesis I

Hypothesis I

There is no significant difference in the overall cognitive performance of students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to students whose teacher accompanies his lecture with nonverbal behavior.

Fisher's t Formula yielded a t value of 4.08 which was significant at the .001 level of confidence. Therefore, it was concluded that the instructor's nonverbal behavior significantly effected the cognitive performance of the subjects. Those students who viewed the active instructor scored significantly higher on the multiple-choice content test than those students who viewed the still instructor.

TABLE I

NUMBERS, MEANS, AND t-SCORES DEPICTING THE DIFFERENTIAL EFFECTS OF THE INSTRUCTOR'S NONVERBAL BEHAVIOR

Cognitive Instrument	N	M	t
Still Condition	41	17.21	4.08*
Active Condition	43	19.37	
Attitudinal Instrument			
Still Condition	41	7.87	9.53*
Active Condition	43	12.46	

*.001 level of significance

TABLE II

NUMBERS, MEANS, AND t-SCORES DEPICTING MALE AND FEMALE RESPONSES TO THE ATTITUDINAL AND COGNITIVE MEASURES

Cognitive Instrument	N	M	t
Active Condition			
Male	19	19.31	0.29
Female	24	19.33	
Still Condition			
Male	20	16.75	1.46*
Female	21	17.66	
Attitudinal Instrument			
Active Condition			
Male	19	12.94	1.65*
Female	24	12.08	
Still Condition			
Male	20	7.80	.018
Female	21	7.95	

*.10 level of significance

Results Related to Hypothesis II

Hypothesis II

There is no significant difference between the rating of the instructor by students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to a group of students whose teacher accompanies his lecture with nonverbal behavior.

Fisher's t Formula yielded a t value of 9.53 which was significant at the .001 level of confidence. Therefore, it was concluded that the instructor's nonverbal behavior significantly affected the attitudes of the students toward the instructor. Those students who viewed the active instructor responded significantly more favorably toward the instructor than those students who viewed the still instructor.

Results Related to Hypothesis III

Hypothesis III

There is no significant difference between the attitudes and cognitive performance of males and females whose male teacher exhibits no intentional nonverbal behavior during the lecture presentation.

Fisher's t Formula yielded a t value of 1.46 for the difference between the mean cognitive scores of males and females which was not significant at the .05 level of confidence in the still condition. Fisher's t Formula yielded a t value of 0.18 for the difference between the mean attitudinal scores of males and females which was not significant at the .05 level of confidence in the still condition. Therefore, it was concluded that the sex of the student was not a significant variable in the still condition of this experiment.

Results Related to Hypothesis IV

Hypothesis IV

There is no significant difference between the attitudes and cognitive performance of males and females whose male instructor exhibits intentional nonverbal behavior during the lecture presentation.

Fisher's t Formula yielded a t value of 0.13 for the difference between the mean cognitive scores of males and females which was not significant at the .05 level of confidence in the active condition. Fisher's t Formula yielded a t value of 1.6 for the difference between the mean attitudinal scores of males and females which was not significant at the .05 level of confidence in the active condition. Therefore, it was concluded that the sex of the student was not a significant variable in the active condition of this experiment.

Discussion of the Findings

The review of the literature presented in Chapter II clearly established the impact of nonverbal behavior in human relationships. Sapir (1949) speaks of the nonverbal, as a secret code, that is written nowhere. The present investigation has attempted to reveal certain aspects of the nonverbal world that surrounds us all. The research challenge presented by Galloway (1971b) is the collection of data supporting the hypothesis that nonverbal cues provide crucial information unobtainable from verbal behavior. The significant t values obtained during this study lend support to the theoretical conceptions of Galloway and others.

A weakness of prior studies in this area has been a preoccupation with the nature of very specific nonverbal behaviors (Duncan, 1969). The present study has identified the overall effects of an instructor's nonverbal behavior. Rather than seeking correlations between specific behaviors and accompaning verbal activity, this investigation has identified the effects of instructor's total nonword behavior on learning and attitudes. The subjects employed in the present investigation viewed only the upper half of the instructor standing behind the podium. The significant t values reflect the importance of facial activity, trunk lean, arm movements, and/or changes in pitch and tone of voice.

A most interesting relationship can be drawn between this study and the work of Mehrabian and Williams (1969). Their data indicated correlations between the degree of liking and the quantity of intended persuasiveness on the part of the sender. In the present study, the instructor, because of a lack of nonverbal behavior was not trying to be persuasive in the still condition. The results obtained from the attitudinal instrument suggest that those students who viewed the still instructor did, in fact, have less positive attitudes than those students who viewed the active condition. This adds credence to the work of Mehrabian and Williams (1969) that there is a positive relationship between liking and intended persuasiveness. For instructors, this can mean that the more one is nonverbally involved in his teaching, the greater the rewards in terms of student response. The present results also support the work of Ekman (1966) and Rosenfield (1966) for the gross measure of total nonverbal behavior and client satisfaction in the clinical setting; a relationship of greater

amounts of counselor's nonverbal activity and more positive feelings of their clients. Those subjects who viewed the active instructor had significantly more favorable attitudes than those subjects in the still condition.

Studies carried out in the clinical setting have identified differential client response to the sex of the counselor (Hackney, 1974). The present study found no significant sex based differences (.05 level of confidence) in the mean subject responses on either the cognitive or attitudinal instrument. A possible explanation is that when a one-to-one relationship is examined the sex of the individuals is more significant than in the academic setting where large numbers of students are involved. In both the clinical and academic settings vocal variation has been found to be an important variable of nonverbal behavior (Addington, 1971). This was born out in the results of this investigation. In the still condition the instructor was essentially monotone while during the active presentation he exhibited variations in pitch and tone of voice. Vocal variation of the instructor had a differential effect on the subjects of this study as indicated by the results.

Previous studies have established the reliability of both sender's and receiver's perceptions of nonword behavior (Mehrabian and Williams, 1969). A mean reliability coefficient of .78 was determined for the Instructor Performance Indicator. A mean coefficient of this magnitude indicates that the subjects were using similar criteria in the way individuals send and respond to nonverbal behavior. Instructors and clinicians using this information as a base can begin to educate themselves and others as to the nonverbal cues that can enhance communication.

Attempts to concentrate on nonverbal interactions started at some institutions (French, 1971; and Love and Roderick, 1971). Also, there is sufficient empirical evidence, including the present investigation, to mandate a greater commitment on the part of educators to at least be aware of their own nonverbal behavior and, if possible, include its study in applicable curriculum. The writer is not suggesting that we all run around classrooms in order to nonverbally exemplify a run-on sentence. However, the writer is suggesting a new perspective, involving nonverbal behavior, is necessary for a greater understanding of human communication.

Summary

The purpose of this chapter was to report the results of the present investigation. The Fisher's t Formula was utilized to measure the effects of the instructor's nonverbal behavior. The dependent measures were a multiple-choice content test and the Instructor Performance Indicator depicting the student's attitudes. Analysis of the data yielded results which indicated significant differences between the two experimental groups for both dependent measures. Sex of the student was found not to be a significant variable. Employing the Kuder-Richardson Formula for estimating reliability, the Instructor Performance Indicator's mean reliability coefficient of .78 was determined and reported. A discussion of the findings followed the results of the investigation.

The purpose of the next chapter will be to present a summary of the study as well as conclusions drawn and recommendations for further research.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this investigation was three-fold. The first was to identify the effects of teacher nonverbal behavior on students' attitudes as measured by the Instructor Performance Indicator. The second purpose was to identify the effects of teacher nonverbal behavior on students' cognitive performance as measured by a multiple-choice content test. The final purpose was to identify the differential effects of a male instructor on male and female students as depicted by both the cognitive and attitudinal measures. Based on the purposes of the study, four hypotheses were tested.

I. There is no significant difference in the overall cognitive performance of students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to students whose teacher accompanies his lecture with nonverbal behavior.

II. There is no significant difference between the rating of the instructor by students who are subjected to a teacher that exhibits no intentional nonverbal behavior as compared to a group of students whose teacher accompanies his lecture with nonverbal behavior.

III. There is no significant difference between the attitudes and cognitive performance of males and females whose male teacher exhibits no intentional nonverbal behavior during the lecture presentation.

IV. There is no significant difference between the attitudes and cognitive performance of males and females whose male instructor exhibits intentional nonverbal behavior during the lecture presentation.

Subjects for the study were by students enrolled in Introductory Psychology, attending Oklahoma State University, Stillwater, Oklahoma. The subjects were randomly assigned to one of two experimental conditions. They viewed video-tape lecture presentations; the only difference being the amount of nonverbal behavior emitted by the instructor on film. They were then administered the cognitive and attitudinal instruments.

The Kuder-Richardson Formula for estimating reliability was utilized to determine a mean coefficient of .78 for the Instructor Performance Indicator. The four hypotheses were tested using Fisher's t Formula. Resulting t scores indicated significant differences at the .001 level of confidence. Sex differentiation of the subjects' responses were found not to be a significant factor in this study at the .05 level of confidence.

Conclusions

The results of the present investigation warrant the following conclusions: First, significant differences were obtained between the two experimental groups on both the multiple-choice content test and

the Instructor Performance Indicator. The significant differences indicate the magnitude of the impact of the instructor's nonverbal behavior on the students' performance and attitudes. These results suggest the desirability of teachers' developing an awareness of their own nonverbal styles. The results further suggest that a more nonverbally active teacher obtains significantly higher levels of performance and more positive attitudes from his students.

Second, no significant differences (at the .05 level of confidence) were found based upon the sex of the subjects in response to a male instructor. These results indicate that the sex of the instructor was not a significant variable. It is possible that the lack of significant differences was an artifact of video-taped stimulus presentations as opposed to live performances. In addition, the variable of sex would gain significance as a function of time and the corresponding development of deeper student-teacher relationships.

The conclusions presented should be interpreted with caution. They should not be generalized beyond the scope of the present investigation.

Recommendations

The present investigation has made a contribution to the existing research on nonverbal behavior. However, additional research is needed in several areas before nonverbal behavior can be fully understood. Recommendations for further research based on the present investigation are offered as follows:

1. Dependent measures for this investigation were administered immediately following the video-tape lecture presentation. The

attitudinal and cognitive instruments were sampling short-term learning and attitudes. It is recommended that studies of long term learning and attitude stability be conducted.

2. The present investigation utilized a trained presentor to act as the stimulus. It is recommended that "real" teachers be the stimuli for future study. These could involve longitudinal studies carried out in the classroom to identify nonverbal styles and their possible relationship to personality variables of the teacher. In addition, future studies could examine the possible relationships between teachers' nonverbal styles and their particular disciplines. For example, physics instructors might characteristically exhibit less nonverbal behavior than sociology teachers.

3. The teacher's nonverbal behavior effects the cognitive performance and attitudes of the students. It is recommended that in future studies the focus be turned from the teacher to the students. Further investigations should attempt to answer the questions: What effects do students' nonverbal behavior on teachers? Are there differences between students at different levels of development, and their nonverbal responses?

4. It is recommended that future research examine the possibility of grouping students and teachers with similar nonverbal styles. Those teachers who are more nonverbally expressive might have greatest impact on students who themselves are more nonverbally expressive while the grouping of less nonverbally oriented students and teachers might enhance their performance and attitudes as well.

5. Sending and responding to nonverbal messages may imply mind-to-mind communication. In a sense it is hidden communication or telepathic. It is recommended that future research should identify other forms of Extra Sensory Perception. Existing research (Schneider, 1971) indicates a relationship between those people who are more nonverbally expressive and their responsiveness to Extra Sensory Perception. Awareness of hidden channels of communication can lead toward fulfillment of man's need for communication.

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APPENDIX A

GALLOWAY ANALYSIS OF NONVERBAL COMMUNICATION

GALLOWAY ANALYSIS OF NONVERBAL COMMUNICATION

	Encouraging	Restricting
INDIRECT INFLUENCE	1. CONGRUENT: nonverbal cues reinforce and further clarify the credibility of a verbal message.	1. INCONGRUENT: contradiction occurs between verbal and nonverbal cues.
	2. IMPLEMENT: implementation occurs when the teacher actually uses student's idea either by discussing it, reflecting on it, or turning it to the class for consideration.	2. PERFUNCTORY: perfunctory use occurs when the teacher merely recognizes or acknowledges student's idea by automatically repeating or restating it.
	3. PERSONAL: face-to-face confrontation.	3. IMPERSONAL: avoidance of verbal interchange in which mutual glances are exchanged.
DIRECT INFLUENCE	4. RESPONSIVE: change in teacher's pace or direction of talk in response to student behavior, i.e., bored, disinterested, or inattentive.	4. UNRESPONSIVE: inability or unwillingness to alter the pace or direction of lecture disregarding pupil cues.
	5. INVOLVE: students are involved in a clarification or maintenance of learning tasks.	5. DISMISS: teacher dismisses or controls student behavior.
	6. FIRM: criticism which evaluates a situation cleaning and crisply and clarify expectations for the situation.	6. HARSH: criticisms which are hostile, severe, and often denote aggressive or defensive behavior.
	7. RECEPTIVE: involves attitude of listening and interest, facial involvement, and eye contact.	7. INATTENTIVE: involves a lack of attending eye contact and teacher travel or movement.

GALLOWAY ANALYSIS OF NONVERBAL COMMUNICATION (Continued)

Encouraging	Restricting
8. COMFORT: silences characterized by times of reflection, thought, or work.	8. DISTRESS: instances of embarrassment or tension-filled moments, usually reflecting disorganization, and disorientation.

APPENDIX B

INSTRUCTOR PERFORMANCE INDICATOR

Instructor Performance Indicator

Directions:

This rating scale consists of 16 statements concerning your attitudes toward the instructor you have just seen on video-tape. Please respond to each statement by darkening the TRUE space if it describes the instructor and FALSE if it does not. If you have no opinion, leave that space blank on the BACK of I.B.M. card.

1. The instructor seems to be sincere.
2. The instructor does not speak well.
3. The instructor seems to be interested in the subject matter.
4. The instructor seems to have confidence in himself.
5. The instructor exhibits good use and command of the English language.
6. The instructor does not have a clear and pleasant voice.
7. The instructor cannot keep the attention of the class.
8. The instructor has a sense of humor.
9. The instructor has poor posture.
10. The instructor presents materials in a clear fashion.
11. The instructor stimulates students by raising interesting questions.
12. The instructor does not put ideas across logically or orderly.
13. The instructor is mechanical and monotonous.
14. The instructor presents subject matter forcefully.
15. The instructor presents himself as being well groomed.
16. I would like to have the person on video-tape as an instructor for a course sometime in the future.

APPENDIX C

TRANSCRIPT OF STIMULUS PRESENTATION

Transcript of Stimulus Presentation

What we're going to be taking a look at this evening is a question that I am certain is of interest to all of us. A question that, like most important questions, has no definitive answers, but has been examined enough over the years that some insight into its dynamics has been provided by researchers. The question concerns itself with the different types of parents and the different affects they have on their children's behavior. In other words, how do parents treat their children, and how do the children respond to that treatment? One of the most frequently examined issues in the discussion of these so-called parental types is how certain patterns of control affect the development of children. So we'll first examine this issue of control. Now, one of the most frequent and convenient ways of examining the different ways parents handle their children is to simply categorize the control as either power-oriented or love-oriented.

In the power-oriented type control, the parents lay down the laws and swiftly punish the child who disobeys. This method of controlling behavior is considered by some to be what is known as "external" control of behavior. This means that the child is really a passive recipient of the rules that are controlling him. He has no input into what these rules are. They are formulated and "imposed" by others "external" to him and any digression from these rules are sometimes handled through verbal reprimand or physical punishment. There is no real effort made on the part of the parents to legitimize their power with reason. To explain to the child the importance of rules and make him understand that there is a reason behind the rules and that they

are not just capriciously exercising their power. Also, the power-oriented parents seldom reward their children for good behavior but rather expect it of them. When the child does something right, he is supposed to; so there is no reason for rewarding him. This particular attitude is not exclusively used by parents but is sometimes evidenced in the way schools handle children. I once experienced a Junior High School, for example, that like most schools, gave report cards with letter grades. Next to each grade on the report card was a number which stood for the way the teacher viewed the child's behavior in his or her class. There was a list of seven numbers that the teacher had to pick from and these numbers depicted such behavior as "talks a little in class," "talks a lot in class," "is out of his seat a lot," "doesn't do his homework," but not one of these numbers stood for any positive behavior of the child. Why? Because it was expected of him!! One teacher expressed to me her frustration because she had some children who were not getting good grades for their work but yet had excellent attitudes, were cooperative and were trying hard. She had no numbers to pick! The only way the teacher was able to communicate this to the parents was to talk to them personally, which she did. But the point is, that the system provided no way of easily communicating these positive behaviors.

As a consequence of this power-oriented type system, the child does not learn to differentiate right from wrong, but rather learns which behaviors get punished and which behaviors he can get away with. The child learns to act appropriately only when someone is present who will punish him if he doesn't. This child who is controlled externally sizes up each situation to determine what he can get away with

and what he can't. Picture, for example, what happens when a teacher who exclusively employs external control is forced to leave the classroom for a minute. Spit-balls start flying, Jimmy starts teasing Johnny, and so on. Now picture what happens when this type teacher comes back to the class and finds everyone running around.

In the power-oriented system, when physical punishment is used, the attitude of the punisher is exemplified in this mother's response to the question: "How often do you spank your child?"

She answered:

> Pretty often--it might be every time I turn around. Over the week-end he is the worst. I don't know if its the fact that he is not in school or what, but over the week-end he gets unbearable. So maybe he'll have the living daylights whaled out of him and snap him out of it for a week, and then next week-end he just goes through the same process. Seems like every week he's got to get a hard whaling. I am not saying he's an angel for the week--you have to crack him all during the week, but not really have to turn him over and give him a really hard spanking . . . .

In contrast to this type of control is the love-oriented type which may also be considered as a fostering of "internal control." In this sytem, the child is encouraged to be an "active participant" in those rules that are governing his behavior. It utilizes praise, warmth, and reasoning. Its major feature is its use of the child's sense of right and wrong to "induce" the appropriate behavior. The parents explain their rules, letting the child know there is a reason for what they want him to do or not to do. If the child does something wrong and is punished for it, he knows there is a reason for the punishment; even if he is too young to fully comprehend the reason. So, in this system, the child is internally "filtering" the reasons for the rules. Rewards for good behavior are plentiful; the idea being

founded on the well established principle that a child is more likely to exhibit those behaviors he's reinforced for. So when a child does something right he's praised for it. Since the child is usually accustomed to this warmth and affection, punishment that jeopardizes the usual pleasant relationship is hard to tolerate because at that moment it signifies to the child that his mother or father doesn't love him. If physical punishment is used, the whole atmosphere which surrounds the incident is different than that in the power-oriented system. The interruption of the free flow of love and affection is more unbearable than the physical pain itself. A graphic description of this type of situation was given by a mother, who said in answer to an interviewer's question "How does he act when you spank him--does it seem to hurt his feelings or make him angry or what?" She said: "It hurts his feelings. I think Billy feels you don't love him then--that's how it affects him. He'll come back to you and say, 'I love you, Mummy'." Then the interviewer asked: "How do you react to this?" and the mother answered:

> Oh, I give him a hug; I love him, too. I've told him and Jean if I get very cross and spank and say something cross to them that 'even though I'm very cross, I still love you.' I tell them to remember that when I'm cross.

From this perspective, then, spanking by a love-oriented parent is more severe--and consequently more effective--than spanking by a power-oriented parent.

It is interesting to speculate what type of far-reaching effects, if any, these different types of control may have on a person. For example, it is possible that the consequences of internal or external control may influence the way a person perceives his or her own ability to control his or her environment. Their ability to have a

say in what happens to them. The idea of one researcher, Julian Rotter, may be appropriate here. He believes that the things that happen to a person can be interpreted by that person in either one of two ways. A person learns to either feel he controls his own destiny or that something or someone else controls it for him. We all believe to some extent that the results of what we do are governed by force beyond our control. But the question is--to what degree. For example, how much control do you think you have over what grade you are going to get in this course? Do you feel that you have most control by the amount of hours you study, or the number of classes you attend, or do you feel that a lot of it is up to such things as the teacher you happened to have gotten, his type of tests, or whether you were lucky enough to study what he asks on the test. If a person believes in what Rotter also terms external control, he believes that even though certain things happen as a result of what he does, there are many unpredictable things, such as fate, luck or chance that also contribute heavily to what happens. We can all picture the fellow that "thanks his lucky stars" when something goes right--and believes it! The opposite type person, who Rotter says is one who believes in internal control, perceives the results of his behavior as largely stemming from his own actions "I caused it." This person sees a direct relationship between what he does and what happens as a consequence. Now, whether or not a person believes in internal or external control of his behavior plays an important part in how quickly a person learns. Rotter argues that when a person performs a particular act, if he believes in internal control, there will be a tighter link between what he does and what happened to him. In other words, "the more this person sees himself

as the cause of the results, the more likely he is to learn from the experience." Let's stop here for a minute, and try to better understand that.

The question is, why does a person who believes he is the cause of what happens learn better? Suppose a man is looking for an unusual brand of tobacco and after trying many different stores he finally finds his special brand at this one particular store. The probability is that when he wants that brand of tobacco again he will have learned to go right to that particular store. In this case, the man performed an act, and was rewarded for it, by getting what he wanted and learned from the experience because he felt he caused what happened. Now let's take a look at a fellow who needs $5.00. As he is walking down the street, he finds $5.00 lying in the street. The probability is that the next time he needs $5.00 he won't go back to that same spot in the street. He hasn't learned from his past experience. Why? Because he felt it was luck that he found it the first time and that he had little control over what happened. Now we all recognize that in the second instance it was pure luck that he found the money. No one would dispute that. But look what affect it had on learning. Now suppose the issue wasn't so cut and dried. Rotter maintains that two people experiencing the same situation may perceive differently how much control they have over that situation. In that case, the one who feels he has more control over the situation will learn better from the experience as was shown by the example.

Now let's get back to our original idea of love-oriented versus power-oriented. One wonders if a child who is raised in a power-oriented type situation will learn to feel that he is not in control

over what happens, what Rotter termed as an external person, while someone who is raised in a love-oriented situation learns to feel he is in control, Rotter's internal person. Some research points to the fact that this may be the case.

Now let's take a look at some other research that's been done with the power-oriented versus love-oriented classification. In certain studies it has been found that external type control, in which both parents have been consistently punitive in the early years of the child's life, has resulted in a reduced tendency to cheat and in a reduced crime rate. However, such research has failed to assess the possible by-products of the control employed. Is the good child simply a subdued child? Is obedience won at the expense of lost initiative and self-respect? In the vast bulk of research, power-oriented control fares poorly. It's been found to produce various blends of dependency, resentment, and submission. It has also been shown to breed rebellion and displaced aggression. In power-oriented situations, boys are likely to fight back while girls tend to succumb. If a girl does strike back, it sometimes shows itself in the form of sexual promiscuity which is her way of getting back at her parents. Some negative findings have also been reported on love-oriented control. It has been shown, for example, that too much fostering of internal control may lead to excessive feelings of guilt by the child for his bad behavior. There is also evidence to indicate that the love-oriented type control develops an inordinate need for affection from the parents which may result in dependency. So what we have reported in the literature, then, is indications that both extremes may create dependency. The power-oriented parent does it by stifling any gestures

of independence while the love-oriented parent creates an insatiable need to please which results in the child doing what the parent wants at the expense of his learning to make his own decisions about what is best for him. This concept of dependency versus independency has created much interest over the past few years. Establishing true independence from parents is seldom a simple matter because motivation and rewards for both independence as well as continued dependence are both likely to be strong; thus leading to conflict and vacillating behavior. However, the degree of difficulty encountered in establishing independence depends in a large measure on two things. (1) How the culture treats independence and (2) the different child-rearing practices of the parents. To be consistent with the main type of this discussion we will not consider the cultural factor but rather restrict our investigation to the different ways parents foster independence. In an effort to better understand these different types of parents we're going to have to define them more specifically than the power versus love oriented dicotomy we have used up to this point. One researcher who has done much work in this area with adolescents is Glen Elder. He has defined seven different parental variations in child-rearing techniques that range from complete parental domination, to complete self-direction. At the complete control extreme he defines the autocratic parent. This type of parent provides no allowance for the adolescent's expression concerning matters of self-government. There is no tolerance for the assertion of leadership or initiative. This is the type of parent that would display an extreme amount of the external control I previously talked about. Next on the continuum, Elder defines the authoritarian parent. This type differs

from the autocratic in that the adolescent is allowed to contribute to the solution of his problem but the final decisions are always made by the parents in accordance with their own judgement. The third type of parent Elder defines is the democratic parent. In this type, the child contributes freely to discussions of issues relevant to his behavior and may even make his own decisions. However, in all instances the final decision is either formulated by the parents or meets their approval. The fourth type is the equalitarian which involves both the parents or adolescents to a similar degree in making decisions pertinent to the adolescent's behavior. So the difference here is that the parents don't always control the final decision. The fifth classification is the permissive type where the adolescent assumes a more active and influential position in decision making. This differs from the equalitarian type in the degree of participation. The next model Elder describes is the laissez-faire. Again, this differs in the degree of adolescent's involvement in decision making. In this type of relationship the youth has the option of either subscribing to or disregarding parental wishes. The seventh and final structure defined, Elder calls the ignoring type. This represents actual parental divorcement from directing the youth's behavior. So moving from the autocratic to the ignoring structure involves a gradual increase in the participation of the adolescent in self-direction. Let's take a look at a specific example and see how each parent and child may interact in solving the problem. Suppose a 15-year old girl is going to her sophomore high school dance. The problem is that she wants to come home later than she usually does, because she is double-dating with another couple and doesn't want to have to make them go home earlier

on her account. With autocratic parents the decision would be made without consideration to the reason. If the parents felt it was not against the girl's best interests as they see it, to stay out later they would allow it but only after considering what they felt was best. The authoritarian parents would consider the reason for the request but they would still be in total charge over the final decision. The democratic parents would probably allow the request but the youth still must ask to receive their sanction of what was really her decision. In the equalitarian permissive households this decision would be made by the adolescent who would consult with the parents to mull over the pros and cons. The same would hold true in the laissez-faire household but the youth probably wouldn't bother to even seek their advice unless something was bothering her that she needed help on. More likely she would probably just tell them what time she would be home. In the ignoring situation, the parent wouldn't even be told about the later hour and they probably would not care.

Elder used this classification system in a study of 7400 adolescents who rated their parents behavior according to this scale. A number of interesting findings came out of this study. As might be expected, fathers were more likely to be rated as autocratic or authoritarian than mothers. This is consistent with findings from other studies that indicate that most adolescents tend to view their fathers as stricter and more aggressive and their mothers as more emotionally supportive and expressive of affection. Also, as one might anticipate, both mothers and fathers tended to treat older adolescents more permissively than younger ones. Parents in larger families tended to be slightly more autocratic or authoritarian than

those in smaller families, even when social class was held constant. The adolescents that took part in the study were also asked their attitudes toward their parents. They were asked "Do you think your parents' ideas, rules, or principles about how you should behave are good and reasonable, or wrong and unreasonable?" The results showed that children exposed to democratic practices considered their parents most fair with equalitarian parents ranking next. Autocratic parents ranked the lowest. These results are consistent with one of Elder's major contentions. He believes that communication between parents and children as in the demanding equalitarian fosters what Freud called "identification." What this is, is a process by which an individual is led to think, feel and behave as though the characteristics of another person belonged to him. For example, a boy who identifies with his father may imitate the way his father talks or pretend he's reading a newspaper like Daddy. Consequently, communication helps foster internal control. A unilateral control of power without communication, as is found in the autocratic type, is more likely to produce resentment. But what also can be seen from these findings is a desire on the part of the youth for some type of structure which is found in both the democratic and equalitarian types. They tend to dislike the un-structure at the lower end of the continuum.

Another interesting finding from the study showed that more favorable ratings on fairness were given to authoritarian fathers, than to authoritarian mothers; in contrast, more favorable ratings were given to permissive mothers than to permissive fathers. This shows that a father, even though he makes the basic decision, will generally be considered fairer if he's willing to listen, but not if he lays

down the law without listening. In other words, as we mentioned earlier, acceptance of parental dictates is greater if the parent makes some effort to "ligitimize his power." Furthermore, being the law-giver is generally considered by adolescents as a more socially appropriate role for fathers than for mothers. In contrast, permissiveness is considered a somewhat more appropriate role for mothers. The adolescents were also asked whether they even thought that their parents made them feel unwanted. By far the largest percentages of adolescents who reported they felt unwanted were found among youths with autocratic or laissez-faire and ignoring parents. In conclusion, then, perhaps the best formula is this: control your child's environment so as to encourage good behavior, and reward it frequently. Bad behavior should be ignored if possible, and if not possible, reasonable punishment should be used. Rules should be explained with reasons for their necessity with an increase of the child's participation in the making of these rules as he or she gets older.

APPENDIX D

MULTIPLE-CHOICE INSTRUMENT

Please answer the following questions by choosing the best stem for each multiple-choice item. Respond to all items by darkening the appropriate space on the FRONT of the I.B.M. card.

1. The question of different parental types:

   A. has no definitive answers
   B. has generated little research
   C. has little to do with children
   D. has specific and definite answers

2. Power-oriented parents:

   A. develop internal control in their children
   B. have paranoid complexes
   C. develop external control in their children
   D. always physically punish their children

3. Power-oriented parents:

   A. over protect their children
   B. rarely try to legitimize their power
   C. always say "no"
   D. always say "yes"

4. The children of power-oriented parents:

   A. are always meek and mild
   B. do not learn right from wrong
   C. respect their parents for what they are doing
   D. are usually better students in school

5. The love-oriented parental type:

   A. develops external control in their children
   B. develops internal control in their children
   C. tends to be permissive
   D. usually has a higher I.Q. score than other parental types

6. The major feature of love-oriented parents:

   A. is the use of the child's sense of right and wrong to induce appropriate behavior
   B. is hugging and kissing their children
   C. is their own self-esteem
   D. is their inability to say "no"

7. Praise, warmth and reasoning:

   A. characterize the power-oriented parents
   B. aren't significant modifiers of behavior
   C. should be used sparingly
   D. characterize the love-oriented parents

8. Children should know the reason for punishment:

   A. so they won't develop unreasonable fears
   B. so they will be good parents
   C. so they can teach other children
   D. so they will develop internal control

9. Physical pain:

   A. is very effective in modifying behavior
   B. is more bearable than the loss of affection and love
   C. means little to children
   D. is harder to give than to receive

10. The example of Billy and his mother illustrates:

   A. the effectiveness of saying "no"
   B. that spanking by a love-oriented parent is more effective than by a power-oriented parent
   C. that spanking by a control-oriented parent is more effective than by a love-oriented parent
   D. the concept of miscommunication

11. The way a person perceives his own ability to control his environment:

   A. is a consequence of his childhood experiences with internal and external control
   B. has very little to do with his childhood
   C. is determined by luck or chance
   D. is a consequence physical punishment during childhood

12. Julian Rotter believes:

   A. that the individual determines the source of control, to be inner directed or other controlled
   B. that everything is controlled by FATE
   C. to be inner or other controlled is determined by heredity
   D. to spare the rod-spoils the child

13. A person who believes in internal control:

A. is always confident
B. perceives the results of his behavior stemming from his own actions
C. never listens to advice from others
D. sees himself as self-actualized

14. How quickly a person learns:

A. is determined by test grades
B. is determined by the connection he makes between his behavior and reinforcement
C. is determined by luck
D. is determined by the teacher

15. A person raised to reason with internal control:

A. feels that he is in control of what happens to him
B. believes in luck and chance
C. never makes errors
D. raises his children the same way

16. In some studies, external type discipline:

A. was found to be associated with reduced cheating
B. was always found to be negative
C. was found to be associated with physical punishment
D. was always found to be positive

17. In most studies, power-oriented control was found to be:

A. associated with rebellion and displaced aggression
B. associated with producing smarter children
C. better than love-oriented control
D. neutral

18. In power-oriented situations:

A. girls are more likely to fight back
B. girls are more likely to rebell
C. boys will succumb
D. girls are more likely to succumb

19. When girls do strike back, it usually involves:

A. doing pooring in school
B. sexual promiscuity
C. physical anger
D. conflict with the mother

20. Too much fostering of internal control may lead to:

A. excessive self-reliance
B. excessive guilt
C. excessive behavioral problems
D. excessive physical punishment

21. Generally, the research literature states:

A. both extreme types of discipline create dependency
B. that severe punishmnet results in greatest behavior change
C. power-oriented control works best
D. love-oriented control works best

22. Glen Elder's studies:

A. involved grade school children
B. adolescents
C. graduate students
D. infants

23. The autocratic parent:

A. allows the child to make his own decisions
B. provides no allowance for the child to make decisions
C. is ambivilent toward the child
D. gives the child free expression

24. The democratic parent:

A. allows the child to make his own decisions
B. tells the child what to do
C. does not care what the child does
D. allows the child to do anything

25. In general, Elder's study pointed at the necessity for parents:

A. to love their children
B. to legitimize their power
C. to avoid discipline
D. to avoid control

VITA

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