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Learning environment preferences of managers utilizing nonverbal communication factors associated with Transactional Analysis

by

Donald Phillip Hendricks

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INTRODUCTION

Every instructor develops and maintains a psychological and sociological environment within the classroom. This study was concerned with the type of environment created by selected nonverbal communication factors as perceived by participants in management development programs.

The study is also exploratory, in that it is not known exactly how the areas of Transactional Analysis and nonverbal communication are related or if they can be utilized in determining the types of educational environment preferred by managers enrolled in management development programs. Much of the literature on Transactional Analysis contains references to certain nonverbal communication factors as they relate to personality but there has been no research to show the extent of the relationship.

Educational environment consists of the attitudes and feelings the instructor and the students have about their interactions with each other. Managers, as students, bring attitudes and feelings about themselves into the classroom that can interfere or help with the development of their skills and their own personal growth. The instructor also has attitudes and feelings which can work at blocking or helping student learning.

Several studies have shown that the behavior an instructor displays can have a very definite effect on how a student will react in a learning situation. The nonverbal behaviors exhibited by an instructor determine, to some extent, the environment of the classroom.

Transactional Analysis

In recent years a psychological technique known as Transactional Analysis has become very popular. The principles of Transactional Analysis were developed by Dr. Eric Berne (15) during the late 1950's. Transactional Analysis is defined as an approach to understanding human behavior and how people relate to one another. One of the major concepts of Transactional Analysis is structural analysis.

Structural analysis is the conceptualizing of a persons personality into ego states. There are three ego states, the Parent, the Adult, and the Child. Figure 1 is a graphic portrayal of personality broken down into ego states. The personality is fairly well developed at the age of five according to Harris (66). He also indicates that everything that we hear or see is recorded in our brain. There is no editing of the concepts or ideas. This recorded information is then used as a data base for many of our everyday decisions and actions. This study

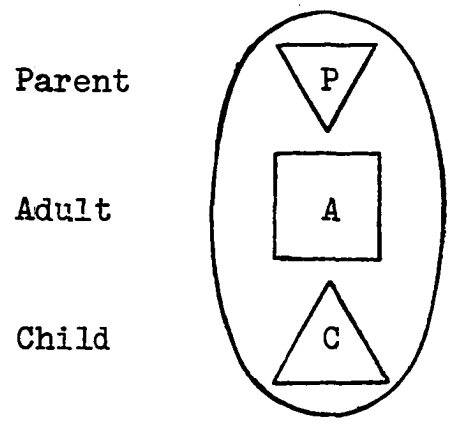


Figure 1. Graphic representation of the personality divided into ego states

uses the main concept of structural analysis. The Parent ego state can be divided into two parts. There is a critical and a nurturing part of the Parent ego state. The parts can either help or hinder our decisions and actions. The Parent ego state makes us feel the need to be right and to feel superior.

The Adult ego state is the computer within our personality. The Adult ego state deals with reality. The recordings in the Adult ego state are the thought out concepts of life. Feelings and emotions are not a part of the Adult ego state. The Adult part of our personality wants to be respected as competent, intelligent and adaptable.

The Child ego state consists of the recording of our feelings, emotions, delights, and fears. The Child ego

state can also be divided into two parts. The first part is the natural Child and can be characterized as spontaneous, curious, genuine and growth oriented. The adapted Child is the part of the personality that has been trained to act in a certain way, either by conforming or rebelling.

Transactional Analysis could be a means to help an instructor promote more effective learning through a better understanding of the dynamics of the learning situation as those dynamics are conditioned by the environment the instructor establishes.

An instructor operating from a particular ego state will set up a classroom environment that will match that ego state and this will be communicated through what is said, how it is said and through nonverbal behaviors. Mehrabain states that:

> . . . the verbal part of a spoken message has considerably less effect on whether a listener feels liked or disliked than a speaker's facial expression or tone of voice (102, p. 53).

He goes on to state that they have worked out a formula. It is:

> Total Impact = .07 verbal + .38 vocal + .55 facial (102, p. 53).

This study utilizes the nonverbal behaviors of an instructor as depicted in a series of photographs that a group of judges have indicated as representative of the ego states.

Nonverbal Communication Factors

A major effort in researching the nonverbal communications area was made during the late 1960's and the early 1970's. A number of popular books have been published recently. The books written by Scheflen and Scheflen (124), Fast (50), and Nierenberg and Calero (107) deal with body language or nonverbal communications. They contain various interpretations for nonverbal cues and in general provide instructions for how to use nonverbal behavioral cues.

Nonverbal cues and clues represent a means of conveying and receiving information. Providing information through nonverbal behaviors is something people have given little thought to and they are usually quite unaware of what is being communicated through nonverbal behaviors.

It has become increasingly important for teachers to understand nonverbal communication factors as they can have a dramatic impact on the effectiveness of the teacher in the classroom. Hodge says:

> Given its distinctive characteristics and implied applications, nonverbal communication deserves recognition as an appropriate set of teaching behaviors (73, p. 3).

The general nonverbal communication factors that this study utilized were the face, body, head, legs, arms, and hands.

Facial expression expresses positive and negative

attitudes both at the moment and in general. People easily infer that they are liked or disliked from certain facial expressions. The face very accurately communicates emotions. Think of smiles and frowns.

The eyes are very much a part of facial expression. The eyes can communicate effectively the acknowledgement of another person's presence and can also be a very good means of personalizing communication. The duration of eye contact tends to be longer when people like the person they are communicating with.

Posture has a very subtle effect when compared to the face and eyes. Posture could be used to indicate both liking and status. Leaning toward someone indicates a positive feeling and if combined with certain facial exprssions it could mean dominance. A very relaxed posture is usually assumed when talking to a low status person. A moderate degree of relaxation in the posture occurs when with a peer. The least amount of relaxing in the posture is associated with being with a person of high status.

Body positioning expresses a person's positive and negative attitudes toward other people. Where an instructor places himself in the classroom can have a tremendous impact on the relationships between students and the instructor. If the instructor takes a position behind the podium and on a platform he is taking an authoritative position. Even if

the instructor comes around and assumes a position on the desk, he may still be operating from an authoritative position. If he comes down into the center of the students, he becomes more one of the group and not quite so authoritative.

Head movements and positions tend to indicate a person's attitudes. A forward lean indicates attention and with a slight tilt can also indicate a questioning-attention or a tell-me-more attitude.

The arms can indicate whether or not a person is open to what is happening at the time. If a person's arms are folded across the chest, it can be a sign of resistance. The arms moving outwardly tends to indicate an expanse in area or a large size.

The hands are utilized in a number of nonverbal clusters. A hand under the chin may indicate thought. A hand over the mouth may indicate that the person wants to talk and is restraining himself. The palms of the hand also communicate. If the palm is turned upward it indicates uncertainty and if it is turned down it means certainty and finality. The palm shown directly toward the recipient of the communication indicates slow down, stop or take it easy.

If a finger is pointed directly at a person it usually indicates something specific is being pointed out or that specific directions are being given. The pronoun you is

probably being used as the finger is pointed.

Purpose

It seemed that the combining of Transactional Analysis and nonverbal communication behavior into one research effort aimed at learning environment preferences of managers would be a logical step toward a further understanding of the environmental expectations of participants in management education programs. Everyone uses and reacts to nonverbal behavior to some degree. The reactions to selected nonverbal behaviors will indicate the type of learning environment managers prefer. This study will contribute toward the answers to the following questions:

1. What are the environmental preferences of managers as indicated by the ego state profiles in a learning situation?
2. Do the expectations of a learning environment change with the age of the manager?
3. Do the expectations of a learning environment change with educational level of the manager?
4. Are the expectations of a learning environment different for men and women?

Definitions

In order to maintain a degree of clarity in this study, the following definitions were used:

1. Transactional Analysis is a general term specifying an approach to understanding human behavior and how people relate to one another.
2. Structural analysis is the breaking down of the personality into the ego states of Parent, Adult and Child.
3. Strokes are units of recognition. They can be positive or negative and can be expressed verbally and nonverbally. Strokes include things such as smiles, eye contact, touch and gestures.
4. Nonverbal behavior as used in this study includes the factors of face, body, head, arms, hands and legs; it does not include vocal tones or personal characteristics.
5. Learning environment is the psychological and sociological climate of a classroom.

Delimitations

The scope of this study was restricted due to several factors. All of the data were collected during the fall of 1975 from managers attending public seminars or in-house management development programs. The attendees were asked

to put themselves into a classroom setting where they would be dealing with improving their proficiency in a skill directly related to their occupation. In reality, many people would find this hard to do even though they are in a classroom setting when they are responding.

While Transactional Analysis is a widely accepted theory about human behavior, there is no actual research that confirms the theory. There is a little research that shows behavior changes on the part of individuals through the use of Transactional Analysis concepts.

The fact that slides or photographs were used to illustrate the behavioral factors could bias the results. Behavior takes place over a period of time and the photographs represent a particular instant of time.

Another factor to consider is the consistency of the reactions by a respondent to a given photograph. This is a question of the reliability of the photograph ratings.

There are many thousands of combinations of nonverbal behavior factors. This study utilizes only ten of all the possible combinations of nonverbal behavior factors.

REVIEW OF LITERATURE

This chapter is divided into three major parts. The first part discusses the concept of Transactional Analysis. There has been very little research reported concerning Transactional Analysis. The literature contained a few reports on resultant behavior change after a group of individuals had been involved in Transactional Analysis training.

The second part of this chapter discusses student learning and nonverbal behavior. The emphasis was placed on learning style and preferences.

The third part of the chapter deals with nonverbal communication. A great deal of research has been conducted in the area of nonverbal communication. Most of this research is concerned with the identification of emotions from a given cluster of behaviors. This part deals with classifying nonverbal behaviors, communicating attitudes nonverbally, kinesic nonverbal factors and oculesic nonverbal factors.

Transactional Analysis

There seems to be a growing interest in Transactional Analysis as a vehicle for improving performance on the job. It is used by some organizations to help their employees

deal with other employees directly and other organizations are using the technique to deal with their customers. An article that appeared in Industry Week (21) not too long ago said that Transactional Analysis is a combination of a theory of personality with a method for understanding communication between people. The article also points out the growing interest in Transactional Analysis as a tool for training managers.

Penzer (111) indicates that Transactional Analysis has been shown to be a powerful tool in helping people better understand their relationships with others. Transactional Analysis provides a framework for self-insight and self-development. Transactional Analysis is a clear, concise and easy to use theory for understanding interactions in a variety of situations.

Stroud (136) also indicates that Transactional Analysis is growing in popularity and is evidenced by the attention the training departments and management consulting firms have given the subject. Stroud says that Transactional Analysis is probably the least threatening approach in training which centers on self-analysis as a method of improving human interaction.

An article in Business Week (22) said that in business, Transactional Analysis has been used mainly to teach employees who deal with the public how to relate better with

the customer. There has also been a move toward managers utilizing Transactional Analysis in improving communication within a company. The article points out that results are almost impossible to evaluate objectively. Some organizations are making efforts to measure the results of their training programs.

A footnote in Rush and McGrath's (122) report indicates that of the 147 United States and Canadian companies participating in a study, the number of companies reporting use of Transactional Analysis with various organizational hierarchical levels to be: Eight for top management; 23 for middle management, 26 for lower management; nine for scientific and professional, nonmanagerial employees; and eight for rank-and-file employees. It can be seen that Transactional Analysis is considered to be a useful tool in the development of people by a variety of organizations.

Most of the books and articles on Transactional Analysis define and describe the ego states, or the structure of personality, in much the same way. Berne (16) defines ego states as coherent systems of thought and feeling manifested by corresponding patterns of behavior. He indicates that the Parent ego state is derived from parental figures. When a person is operating in this state, they feel, think, act, talk and respond just as their parents did when they were little. Even when the behavior is not apparent, the

Parent ego state influences an individual's behavior as their conscience. The Adult ego state appraises the environment objectively and calculates possibilities and probabilities on the basis of past experiences. The Adult ego state functions like a computer. The Child ego state feels, thinks, acts, talks and responds just the way the person did when they were a child of a certain age. The separation of one feeling-and-behavior pattern from another in diagnosing ego states is called structural analysis.

According to Rush and McGrath (122), Transactional Analysis stresses early experiences and interactional influences on the formation of a person's personality, life style and resultant behavior. Transactional Analysis deals with the here and now as a means of improving understanding and interactions between people. Personality is made up of three ego states. An ego state being a consistent pattern of behavior based upon prior feelings and experiences. The ego state in control at a particular time governs the individual's reaction to a given situation.

There is a physical reason for the belief in the theory of Transactional Analysis that is based on the work of a doctor. Harris (66) reports on the work of Dr. Wilder Penfield, a neurosurgeon. Penfield conducted a series of experiments in which he stimulated part of the temporal cortex of the brain with a galvanic probe. The stimulation

evoked a response of memories of words and feelings. Harris states three conclusions drawn from Penfield's work. Harris' (66) conclusions were:

1. The electrode evoked a single recollection, not a mixture of memories or a generalization (66, p. 6).

2. The most significant discovery was that not only past events were recorded in detail but also the feelings that were associated with those events. An event and the feeling which was produced by the event are inextricably locked together in the brain so that one cannot be evoked without the other (66, p. 7).

3. The brain functions as a high-fidelity recorder, putting on tape, as it were, every experience from the time of birth, possibly even before birth (66, p. 9).

Harris states that the biological studies have provided support and that they help to explain observable behaviors. Meininger (103) indicated that Penfield's work points out that what a person has been consciously aware of in life, has been recorded in detail and stored in our brain, and is available for replay in the present.

McCormick and Campos (99) agree with Berne's (16) definitions and say that everyone has three parts, or persons, within themselves: A Parent, an Adult and a Child. These parts are technically known as ego states. The Parent ego state is the part of a person that feels and behaves just as the person's mother and father did. A person's Parent ego state can be helping or critical. The

Adult ego state is the part of a person that figures things out by looking at the facts. A person's Adult ego state is like a computer that uses the facts to arrive at a decision. The Child ego state has the same feelings and ways of behaving as when the person was very young. A person's Child ego state can be natural, that is, act on its own, or it can adapt to please the internal Parent ego state. Each of the three ego states has its own way of feeling and behaving. The authors indicate that one of the ways to tell which ego state is in control is by the person's behavior. Behavior includes posture, the way a person stands, sits and walks, the person's voice, and the person's words.

Cole and Elsass (29) say that many executives are discovering that Transactional Analysis is an effective way of improving communication. Transactional Analysis is considered as a viable teaching-learning device. Strokes are units of recognition. Everyone needs strokes. Strokes can be positive or negative. Understanding the stroking concept is one of the keys to motivation. Strokes form the basis of an individual's personal motivating force. Strokes can be expressed verbally or nonverbally.

Coleman (30) says that the exchange of strokes is one of the most important activities in which people engage. Strokes include physical touch, praise, recognition, appreciation, active listening, and nonverbal communication such

as smiles and gestures. The literature indicates that all interactions are strokes and that strokes can be expressed nonverbally.

Kravas and Kravas (91) use Transactional Analysis in another way. They feel that Transactional Analysis is a useful technique in classroom management. They say that a fundamental task of an instructor is to help students learn. One of the critical components in this learning process is the establishment and maintenance of a classroom environment conducive to learning. An instructor's ability to utilize interpersonal dynamics skills is most important in establishing the desirable climate. The instructor who can recognize behavior emanating from an inappropriate ego state can take steps to deal with the behavior. Transactional Analysis provides the instructor with a way of conceptualizing the behavior. The instructor who is able to utilize Transactional Analysis to conceptualize behavior is more able to communicate honestly and openly with students. If the students also understand Transactional Analysis concepts, the common language can aid the openness and honesty of the communications and therefore the learning environment.

Mueller and Baker (105) indicate that when an instructor's Parent ego state is in control, they tend to be judgemental or directive. This tends to reduce the

instructor's effectiveness through lowering student respect for them. Responding in the Adult ego state builds toward a positive teacher-student interaction.

There was very little reported research on Transactional Analysis. This was probably due to the fact that the first planned application of Transactional Analysis took place in 1969 according to Rush and McGrath (122).

An article that appeared in Business Week (22) indicated that 15,000 employees at American Airlines have had training in Transactional Analysis and that their program has been used to train 30,000 employees in other organizations. The Bank of America reported that all of the 68 managers who went through Transactional Analysis seminars believed that their Adult ego state was strengthened, 86% felt that they were better able to handle difficult interpersonal problems, and 79% found the concept useful at home as well as on the job.

Rush and McGrath (122) state that the Bank of New York has trained about 250 of its first-line managers in Transactional Analysis. In a randomly selected sample of seminar alumni, it was found that 80% were able to recall specifics from the training program and more than half reported that they were consciously trying to apply Transactional Analysis concepts on their jobs. The authors report that American Airlines found that 99% of the trainees reacted favorably,

and 86% felt more positive and confident in their job roles.

Zaffarano (150) reports that at Great Western Cities, training in Transactional Analysis paid off for the sales people. The experimental group essentially doubled their conversion rates and ran two to three times higher than the control group. The other positive results that were reported were a decrease in cancellation rates, better in-company communications, reduced turnover and a reduction in selling costs.

The organizations that have tried Transactional Analysis are reporting very good results for the customer oriented programs as well as the management development oriented programs.

Summary

The literature indicates that data is recorded and stored in exact detail and is available for replay in the present. All of the feelings and events that happened in early childhood are available to a person in every interaction. An ego state is a consistent pattern of behavior based on prior feelings and experiences. The Parent and Child ego states feel, think, act, talk and respond just as they learned very early in life. The Adult ego state acts as a computer and processes all information available at the moment.

Structural analysis allows for the analysis and understanding of interactions in a variety of situations. Structural analysis provides a means for conceptualizing behavior. The ability to conceptualize behavior aids an instructor in building an effective learning environment. The ego state in control at any given time governs the individual's reaction to a particular situation. The way to tell which ego state is in control is by observing a person's behavior.

The reported research indicated that training in Transactional Analysis aided individuals in their interactions with others. Training in Transactional Analysis concepts has been initiated by a large number of organizations at the present time.

Strokes are units of recognition and include such things as physical touch, active listening as a part of effective communication, and other nonverbal communication factors such as smiles and gestures. Strokes that originate in the Adult ego state help develop a positive student-teacher interaction.

Learning Environment

The learning environment is created by many different factors. The factors of concern in this study were personality oriented and center around the psychological and

sociological setting. An individual's reactions to selected aspects of another individual's personality will aid in the determination of the learner's environmental preferences.

Fisher (53), in discussing learning theory, indicated that training must go beyond eliminating the lack of a specific skill to the idea of looking at the learner as a total person. A teaching-learning theory must incorporate elements of adult education and group dynamics. Fisher says that there are seven basic areas in the educational model. Four of the areas are of interest. The first area deals with what the learner brings to the classroom and includes things like values, attitudes and beliefs. The second area deals with the values, attitudes and beliefs the instructor brings to the classroom. The third area is the other learners and their affect on group dynamics. The fourth area is the interaction process as it helps establish the educational environment.

Kenneth and Rita Dunn (42) studied the environment from another direction. They believe that learning can be aided by matching students learning styles to the way a program is handled. When people study, they are affected by at least four different sets of stimuli. They are the physical environment, the emotional framework, the sociological setting, and their own personal needs.

The Dunn's indicated that the emotional framework deals

with capability and motivation and that the sociological setting deals with how students relate to one another and to the instructor. Some students prefer to work alone and others prefer to be in groups. The individuals personal need area deals with the idea that some people prefer to learn by hearing, some by kinesthetic involvement, and some by a visual experience.

Walsh and Soat (141) indicate that the learning process is unique to each individual. Instructors should be aware of individual learning styles. Learning styles include both sensory modality and cognitive styles. The sensory modalities the author discussed were auditory, visual and kinesthetic. These were the ways learners choose to learn.

Through knowing sensory modality preference and the learners cognitive style in acquiring information, the instructor can group the learners or adjust the teaching style to fit the individual.

The literature seems to indicate that students are individuals and that they do have preferences for how they learn, where they learn and who they are learning with.

Romine (118) reports on the perceptions of students and faculty members of an effective instructional environment. His data were gathered through a questionnaire. The respondents were asked to register their personal perceptions of the significance of each stated attribute to an effective

instructional environment. A five-point scale was used to indicate the range. The range was from very significant contribution to detracts very significantly. Significant items were grouped into clusters. The highest rated cluster was the instructors personality and included items such as enthusiasm, dynamics and energy level, interest in students and humor. The other clusters were instructional preparation and organization; instructional outcomes; classroom presentation; evaluation, feedback and reinforcement; supplemental student assistance; and student learning obligations.

Summary

Instructors and students, as individuals, bring different values, attitudes, and beliefs into the learning environment. These factors have an affect on the psychological and sociological setting. Learners are affected by environment and learners have different environmental preferences when it comes to learning. Some people prefer to learn by just hearing, some by just seeing, and some by kinesthetic involvement. Different environments for learning offer different advantages to the learner and to the instructor. An instructor should be able to adjust the environment so that learners can individualize the instruction.

Nonverbal Communication

There seems to be a great deal of research in the area of nonverbal communications. Most of the research deals strictly with the effects of nonverbal behaviors or the interpretation of selected nonverbal behaviors. The present study utilizes the results of several of these studies in trying to combine the concepts of the Transactional Analysis theory with nonverbal behaviors.

Hodge (73) defines nonverbal communication as all movement which can be visually perceived. Koch (89) defines nonverbal language as any message sent or received, independent of the spoken word. Beegle (12) says nonverbal communication is the exchange of information through subtle visual signs such as gestures or mannerisms. He goes on to say that nonverbal communication is a frequently used and significant way for people to express what is on their mind. Ligons (95) feels that nonverbal communication is a support system for the verbal message that we convey. He believes nonverbal communication should be taught to students so that they may make the learning experience more meaningful and useful. Heger (70) defines the nonverbal component of interaction as gestures, mannerisms, intonations, inflections, and manipulations of pace. This component carries most of the emotional message of the interaction. The nonverbal component of communication can be more meaningful

than the verbal component of communication.

There were several different ways to define nonverbal communications. Some of the researchers include vocal tones and some do not. This study does not include vocal tones.

Galloway (58) says it is very difficult to categorize nonverbal behavior. This is partially responsible for the lack of research in the area. Many students rely heavily on nonverbal communication as a means to reveal the authenticity and genuineness of a message. If a difference exists between the verbal and the nonverbal message, the nonverbal will be believed and accepted.

In general, Schnapper (125) feels that instructors have dealt with nonverbal communication in a very haphazard way. The fact that nonverbal interaction is a part of every encounter should signify its importance.

Mehrabain (102) says there is a very limited range of nonverbal behavior and it is usually used to communicate feelings, likings and preferences. It reinforces or contradicts the feelings that are communicated verbally. This agrees with Galloway (58).

The literature indicates that nonverbal communication is very important and has been dealt with in a haphazard way.

Nonverbal communication plays a major role that reinforces, contradicts or neutralizes verbal communication

according to Delahanty (36). Galloway (58) and Mehrabain (102) agree with Delahanty (36).

Robert and Anita Woolfolk (148) say that student perception of, and attraction for, the instructor are clearly influenced by the evaluative behavior of the teacher.

Keith et al. (81) indicate that their research efforts show that there is a continuous flow of verbal and nonverbal cues emitted in interpersonal situations which reciprocally modifies and controls patterns of interpersonal interaction. It has been documented that facial expression, posture, head movements and gestures convey cues indicating the emotional and attitudinal states of a person. The authors found that verbal expressions of approval are relatively unrelated to student responsiveness. Nonverbal cues of approval were much more influential on students, especially in task-relevant behavior.

Galloway (60) states that nonverbal behaviors convey hate, fear, anger, anxiety and other emotions. Feelings of pleasure or distrust can be transmitted by an instructor or a student. Nonverbal behaviors are convincing and persuasive carriers of emotional content. Certain specified behavioral cues and responses are learned by instructors and students. Galloway gives examples of instructors snapping their fingers to get attention, folding arms to signify disapproval, holding a finger to the lips to achieve silence, staring at

students to convey negative reinforcement, and pointing at students to give directions. Galloway's findings are consistent with the findings of Keith et al. (81).

Nonverbal classification

A number of authors present systems for categorizing nonverbal behaviors.

Dunning (43) states that some of the early categories utilized in studying nonverbal behavior were happiness, surprise, fear, anger, disgust, and contempt. Later studies utilized the categories of body acts, body position, facial expression and head orientation.

Ehat and Schnapper (45) indicated that nonverbal behavior can be categorized into three modes. The first mode is interactive and deals with kinesics, proxemics, chronemics, oculesics, haptics, and personal appearance. The second mode is that of situational behavior and includes the areas of absence or presence of people, grouping of people, the physical setting, and timing. The third mode is that of personal style and deals with responsive reactions to initiatory ones.

Nonverbal communication is divided into the vocal and kinetic channels according to Ligons (95). The kinetic consists of postures, gestures, and other body movements.

Schnapper (125) defines five critical dimensions of

nonverbal behavior. The first is kinesics, the movement of the body including the head, arms, legs, etc. The second dimension is proxemics, the interpersonal space around us. The third dimension is chronemics and deals with the timing of verbal exchanges during a conversation. The fourth dimension is oculesics or eye contact. The fifth dimension is haptics and deals with where, how and how often people touch during a conversation.

Duke (41) says that kinesics is the study of body movements and their role in communication. A tremendous range of human behavior exists within the confines of nonverbal communication. Body motion, or kinesic behavior, usually includes gestures, movements of the body, limbs, hands, feet and legs, facial expression, eye behavior and posture. There is a wide range of possible behaviors within each of these areas. It has been determined that the face alone is capable of making almost 250,000 different expressions. Duke defines proxemics as the study of mans use and perception of his social and personal space. There are basic cultural differences. People will adjust the space between themselves on the basis of race, level of intimacy, their prior relationship, their business together, and the available space.

Communicating attitudes nonverbally

According to the literature a number of different behaviors characterize good teachers. Psencik (144) indicated that there were certain identifiable instructor behaviors that inhibit or enhance student learning. There are certain behaviors that characterize good instructors regardless of the subject matter being taught. Heger (70) indicated that there were several important dimensions of the teaching-learning process that we should be concerned with. The teaching-learning process is a communication process involving both verbal and nonverbal media.

Students and instructors can be studied and the results utilized to make inferences about the teaching-learning process.

A number of the studies reported findings relevant to the statement variables used in this study. The following reports were used to make decisions about the variables and the photographs used in this study.

Effective instructors have an active and sincere interest in students at all times according to Aspy (10). He says that the effective instructor will listen to and accept what students have to offer at all intellectual levels. More effective instructors tended to use significantly more praise and encouragement, accept the feelings of the students and elicit more student initiated talk.

Rothbart et al. (121) found that instructors used nonverbal facial expressions as one means of positive or negative feedback. The authors indicated smiles and positive head nods were considered positive nonverbal feedback while frowns, scowls and negative head nods were considered negative nonverbal feedback.

Instructors exhibited more nonverbal behaviors of a positive nature than of a negative nature according to Koch (89). He also indicated that only 25 percent of the instructors he observed really exhibited enthusiastic nonverbal behaviors. An instructor's response to nonverbal behaviors show the extent of his interest in the student according to Hodge (73).

A report by Scott (129) is concerned with what trainees and trainers bring to the classroom or learning situation that is not relevant to the training but which affects learning outcomes. He contends it is the trainers and trainees self-image, including self-worth and acceptance. An individual's self-image is subject to basic drives such as adventure, security, response and recognition and how a person reacts depends on whether they have an intrinsic or extrinsic value system. The intrinsic value system is self-oriented and has a positive value in learning.

Kleinfield (86) reports on an experiment conducted to find out if instructor warmth affected the amount of

learning that takes place. It was found that both Eskimos and Whites tended to learn more when the investigator behaved in a nonverbally warm style. Females did score higher. If an instructor starts out with warmth and later moves to impersonal treatment, it did not change the students views and learning remained high. Two ways to express nonverbal warmth were used frequently by effective instructors. They were smiling and close body distance. Touch could also be used effectively but it depends on a number of other factors.

Kinesic nonverbal communication factors

This section contains reports on the findings of a number of research efforts dealing with body positions, postures, gestures and the concept of context. Little is known about preferred gestures according to Hodge (73) because of the complexity of body motions. Knapp (87) says the study of body movements has primarily focused on the areas of attitudes, status, affective states or moods, approval seeking, quasi-courtship behavior, inclusiveness, leakage or deception, warmth and interaction markers.

Context can be very important according to several researchers. Savage (123) says that gestures must be taken in context. He also feels that gestures are an integral

part of a culture. Duke (41) agrees with Savage by indicating that gestures by themselves are meaningless without accompanying references to specific contexts in which the gestures occurred. Victoria (140) indicates that nonverbal gestural behaviors function as a qualitative measure of instructor communications in the context of teaching-learning situations.

An article that appeared in Industry Week (96) states that knowledge of and training in nonverbal communication aids in the overall communication process and more accurate responses can be made by those communicating. Single gestures can be a problem, a cluster of gestures should be put together to help complete a message. Gestures can help influence other people, for example, if you wanted to have someone listen to you, it would be helpful to not cross your arms, open your legs, and tilt your head slightly sideways. Openness on your part is countered with openness on the part of the respondee.

Fast (75) discusses some of the more universal body language positions. He says that there are no totally universal nonverbal behaviors, but there are a number of gestures that are universal for a given culture at a given time. He indicates that leaning forward in a chair in an aggressive way is usually done by a good salesman. How an instructor stands and where an instructor stands is very

important in terms of the relationship developed with students.

Some of the postural categories reported by Dunning (43) are; approach and withdrawal, expansion and contraction, an distance between the communicators. Differences have been found in attitude conveyance between standing and sitting communicators. Dunning also states that there are differences between sexes in the implications of a given body orientation. People have postural behavioral clusters. Each cluster is separated by a point with several points being called a position. A position may be held from a half-minute to several minutes. In general, people who are discussing a familiar topic tend to display high amounts of gestural activity. Dunning also indicates that research into proxemics has failed to produce a general theory regarding the communication of attitudes.

Knapp (87) indicates that body position or orientation is the degree to which communicator's shoulders and legs are turned in the direction of, rather than away from, the addressee. Male and female communicators perceived a person leaning backward and away from them as having a more negative attitude than one who was leaning forward. Knapp (88) reports that body movements tend to indicate like or dislike, striving for recognition and status relationships. The context of the nonverbal behaviors became very important.

Mehrabain (102) agrees with Knapp (88) by saying that posture is used to indicate both liking and status.

Oculesic nonverbal communication factors

This section deals with eye contact, the importance of the eyes in nonverbal communication and reports on several studies that provided information relevant to the photographs used in this study. The eyes are probably the most important part of nonverbal communication according to Savage (123). Hodge (74) agrees by saying that a better understanding of the potential of eye contact contributes to teacher-student interaction. Eyes can be utilized to create an awareness of each other, to personalize a communication, to individualize an instruction, to manage a class, to motivate individuals, and to prevent disciplinary problems. Eye contact is a vital nonverbal function of instructors as communicators. Duke (41) also agrees with Savage (123) by saying that the eyes play an essential role in communications by serving to establish, prolong or discontinue communication. The eyes communicate the acceptance and understanding of ideas and actions. Student directed eye contact appears to be very desirable according to Hodge (73).

Eye contact is very important as Knapp (88) reports that in the eye contact area it has been observed that when

eye contact is made, the communication channel is open, also, when we want feedback on what we have just said. Eye contact can also be used to indicate aggressiveness or create anxiety in others. Eye contact varies in use with several items as the following studies indicate. Mehrabain (102) says that eye contact tends to increase with liking and that people will face each other making eye contact easier. Dunning (43) reported that people tend to have more eye contact when they knew they were being evaluated positively and less eye contact when they were being evaluated negatively. Ashear and Snortum (9) found differential patterns of eye communication for boys and girls. They indicated that girls tend to maintain eye contact longer than boys.

Certain facial areas are better predictors of emotional states according to Knapp (87). The evidence seems to show that the best predictors of happiness are the lower face and the eye area. The eyes are the most revealing for sadness. The eye area and the lower face tell us the most about surprise. Anger is best identified by the lower face and the brows-forehead area. The eye area also tends to be the best predictor of fear. According to Hodge (73), facial expression communicates emotional meanings more accurately than vocal expressions. Facial expressions are especially effective in communicating happiness, fear, love, and

determination. Smiling is a very effective positive reinforcer.

Research in the area of nonverbal communication is not without problems. The following reports point out some of the shortcomings and some of the problem areas. Two of the reports indicate how they have handled the data.

Galloway (59) says that the chief difficulty faced by all investigators has been determining which methods of analysis best reveal the meanings of nonverbal messages. Nonverbal cues and body language are similarly dependent on how they are responded to and on how and where they occur. The real problem in studying nonverbal behavior is finding measurable units of behavior and precise analytical methods. Dunning (43) agrees with Galloway and says that the problem in nonverbal research is the inadequacy of the stimulus materials and the imprecision of measurement techniques. He goes on to say that nonverbal behavior is consistent.

Lewis (94) developed a pictorial attitude scale to provide a nonverbal measure of children's attitudes toward various types of school situations and activities. The scale had three positions. The scale positions were happy, neutral and unhappy. The children were to indicate how they saw themselves in given situations. The obtained data yielded adequately reliable scores.

Rosenthal et al. (120) developed a test called the Profile of Nonverbal Sensitivity. The test measures a person's ability to understand two kinds of wordless communication. They are voice tones and movements of the body and face. The researchers feel that nonverbals communicate expectancies. The test requires that the respondent choose one of two answers with one being the correct choice. The point is to find out which individuals and categories of people do well on the test and which do poorly.

The researchers utilize video tape where parts of the tape are just visual and parts are with a muffled sound. There are 20 situations using 11 different channels. They used a panel of three judges to determine the authenticity of the recordings. They picked the best of three for each situation and each channel. Each scene is shown for two seconds. They found that some people are quite accurate in their selections down to one twenty-fourth of a second. That was only one frame of the picture. They did find that the accuracy of the respondents increased with an increase in exposure time. The Profile of Nonverbal Sensitivity test indicates that females are better than males at detecting nonverbal cues. This held true for 81 of 98 groups. There were no significant differences for occupations that require nurturant, artistic, or expressive behavior. Another possible problem was the fact that the sender was a female.

They also found that people tend to become more sensitive to nonverbal behaviors as they get older.

Summary

Nonverbal communications is defined as an exchange of information through visual signs.

Nonverbal communication is a part of every encounter or interaction with another person. Therefore, nonverbal communication factors can be very important in determining the psychological environment of a classroom.

Nonverbal communication reinforces, contradicts, or neutralizes the verbal portion of the message. If a difference exists between the verbal and the nonverbal message, the nonverbal message will be believed and accepted. When the verbal and nonverbal reinforce each other the student sees the instructor as supportive.

The nonverbal mode of communication carries most of the emotional meaning of an interaction. Nonverbal behaviors are very convincing and persuasive carriers of emotional content.

Significant contributors to the instructional environment include the instructors personality, enthusiasm, dynamics, energy level, humor, interest in students, and student participation. Nonverbals communicate teacher expectancies but there was no significant effect on student performance due to the expectancies. Nonverbals also communicate

feelings, likings, preferences, and modify or control interactions.

Nonverbals are made up of gestures, postures, body movements, facial expressions, and the eyes. Within a given culture, very little is known about preferred gestures because they are very complex and should only be considered in a certain context. Gestures should also be studied in clusters if they are to be meaningful.

A person's posture can suggest alertness, boredom, disgust, eagerness, liking and status. Body movements tend to indicate like or dislike, status relationships and recognition seeking. Body movements also occur through time and need to be considered in sequence if meaningful interpretations are to be made.

The eyes are the most important part of nonverbal communication. Eye contact can create awareness, personalize an instruction, manage behavior, motivate, establish and maintain a relationship or interaction, communicate acceptance and understanding, indicate aggressiveness, and create anxiety in others. Eye contact increases in duration with liking, with positive evaluation, happiness, fear, love, and determination. Women tend to maintain eye contact for longer periods than do men.

Effective instructors with a high amount of student contact contributed toward student emotional growth and

tended to use more praise and encouragement. An instructor's response to nonverbal communication shows the extent of instructor interest in the students. People tend to learn more in a class where the instructor displays nonverbal warmth. Women learn more than males in a warm situation. Instructors tend to be more positive, accepting and supportive of allegedly brighter students. Nonverbal approval is very important to students. Very few instructors exhibit enthusiastic nonverbal communications.

Women are better at detecting nonverbal cues as are older people. If an instructor displays open and warm nonverbals, there is a good chance that students will respond with open and warm nonverbals and a meaningful interaction will take place.

A number of studies used photographs as a means of gathering data. In all the studies, the photographs have yielded adequate and reliable data.

Summary

Transactional Analysis was defined as a combination of a theory of personality with a method for understanding communication between people. Structural analysis is a way to categorize behavior. A person's behavior can indicate which ego state is in operation or in control at a given time. An ego state is defined as a consistent pattern of

behavior based on feelings and experiences. Behavior is reinforced through stroking. Strokes may be given through the nonverbal mode of communication.

Transactional Analysis has been used by a variety of organizations to improve the quality of interactions between employees and between employees and customers.

Nonverbal communication is defined as the exchange of information through visual signs. Every encounter includes the use of nonverbal communication behaviors. People receive and react to the nonverbal behaviors they perceive. Reported research has indicated that in some cases the verbal mode of communication has more impact but there is a great deal of evidence that the nonverbal mode has a greater impact than the verbal mode. Verbal messages may be supported by nonverbal behaviors or they may be unsupported by nonverbal behaviors. In either case, the nonverbal behaviors tend to be believed more often.

Nonverbal communication factors carry most of the emotional content of a message. An individual's attitudes, values and beliefs can be communicated through the nonverbal mode of communication.

There are a number of ways nonverbal behavior can be classified. Most of the classification schemes utilize parts of three major classifications. The three classifications are interactive, situational behavior and personal

style. The interactive classification includes kinesics, proxemics, chronemics, oculesics, haptics and personal appearance. The situational behavior classification includes the surrounding people, the grouping of people, the physical setting, and timing. The personal style classification includes the responsive reactions to behaviors. Most researchers have utilized the interaction classification in setting up their research projects.

The kinesic area literature discussed postures, gestures, and facial expressions. The reported research indicated that feelings, attitudes, values and beliefs can be communicated through nonverbal behaviors very effectively. The research points out that the interpretation of nonverbal behaviors is very complex and that accuracy can be improved by understanding the context and by looking at clusters of behavior.

The oculesic area is concerned with the eyes. The eyes are a very important part of the communication process. They can communicate emotions more accurately than words. The eyes can create awareness, personalize communication, communicate acceptance, understanding, liking, happiness, fear, determination, aggressiveness, love and anxiety.

The interpretation of nonverbal communication behaviors is very complex. The research has covered a variety of variables. The variables include approval, support, warmth,

interest, praise, encouragement, trust, pleasure, attention, security, receptivity, enthusiasm, expectations, competition, self-worth, and self-image.

The research has pointed out that effective instructors use more praise, encouragement, warmth, approval and are more supportive and enthusiastic. They also have high expectations and a positive self-worth and self-image.

METHOD OF PROCEDURE

This study was designed to determine if managers enrolled in management development programs have a preference for instructors who operate from the Parent, Adult or Child ego state and if there were differences due to the age, educational level and sex in a manager's preferences for learning environments. Photographs of an instructor were taken in various "poses" using the nonverbal communication classifications of kinesics and oculesics. The photographs chosen for this study were classified into the ego state that they portrayed by a panel of judges with expertise in Transactional Analysis. The photographs were shown to the managers and they indicated agreement or disagreement with statements made about the instructor. The managers ratings of the instructor in the various "poses" indicated their ego state preferences along with preferences for different learning environments.

The Variables

Fifteen variables were selected that contribute to the psychological and sociological environment of the management development program. The sixteenth variable was selected to cross-check the other variables. The variables, when in the correct proportions, can significantly aid in the

learning process. The variables of interest in this study are effective communications, encouragement, competence, confidence, domination, punishment, demands performance, sympathy, prejudice, manipulation, self-centeredness, fun, compliancy, enthusiasm, warmth and the feeling of being able to learn.

All of the variables were chosen because they involve attitudes and feelings. The review of literature indicated that several of the variables could be communicated through nonverbal behaviors. The remaining variables were chosen because they appear to contribute to the overall learning environment. All 16 variables can be associated with the different ego states.

Encouragement, domination, punishment, demands performance, sympathy, and prejudice are variables associated with the Parent ego state. Encouragement has been found to be useful in the learning process. Effective communications, competence, confidence, and learning are associated with the Adult ego state and all are useful in the learning process. Manipulation, fun, self-centeredness, compliancy, warmth, and enthusiasm are variables associated with the Child ego state. Warmth and enthusiasm have been shown to aid the learning process.

Hypotheses

The main objective of this study was to determine environmental preferences as determined through ego state preferences of managers enrolled in management education programs. The ego state preferences were determined by the ratings the managers gave the photographs for each of the statement variables. The ratings for each photograph, for each statement variable, and a composite of the photographs for each ego state are presented graphically. The significance of the F ratios for each source of variance determined the appropriate graphs for presentation in the findings chapter.

In order to accomplish the other objectives of this study it was necessary to test three hypotheses:

Ho_1: There will be no significant differences in the ratings of the photographs due to the age of the rater.

Ho_2: There will be no significant differences in the ratings of the photographs due to the educational level of the rater.

Ho_3: There will be no significant differences in the ratings of the photographs due to the sex of the rater.

Photographs

The study called for the use of ten photographs to represent the three ego states. The Parent and Child ego states were represented by four photographs each and the Adult ego state was represented by the remaining two photographs.

Photographing plan

In order to get the ten best photographs in the correct distribution for the ego states it was necessary to plan the photo session. The plan called for utilizing certain clusters of nonverbal communication factors and to informally try to get photographs of a mood.

The nonverbal communication factors utilized were:

Face

a. Eyes - squint, normal, wide open

b. Mouth - pursed, slight smile, warm smile, grin

Head

a. Straight forward - erect

b. Tilted to side

c. Tilted forward

Body

a. Straight

b. Slouch

c. Leaning

d. Twist

e. Seated

Legs

a. Crossed

b. Spread

c. Straight

Arms

a. Straight

b. Gesture toward front

c. Wave

d. Pointing

Hands

a. Palms up

b. Palms down

c. Fists

In general, the study called for taking photographs that utilized clusters of nonverbal behaviors that were associated with the ego states.

The researcher edited the photographs for those that obviously could not be used due to poor quality. There were a total of 190 photographs after the researchers editing process.

The judges

In order to select the best photographs, a group of 15 judges were selected. Each of the judges had a degree of expertise in Transactional Analysis concepts. The judges backgrounds were variable. The judges occupations included training directors, technicians, housewife, personnel director, draftsmen, and teachers in the areas of management, family environment, industrial engineering, and speech. There were four female and 11 male judges. The judges did not know the purpose of the study.

Photograph selection

The judges worked independently in classifying the photographs. The judges were asked to classify each of the 190 photographs by the ego state they felt was represented by the nonverbal communication factors. The photographs were put in slide trays in random order. The form (Appendix A) that was utilized provided space for each of the three ego states. If a judge could not decide which ego state to classify the photograph into, they were supposed to check the two ego states they thought were involved. When two ego states were checked, the photograph was put into a fourth classification labeled "can't decide". The data were coded and processed.

Statistical method

Chi-square contingency tables (Appendix B) were compiled to determine the reliability of the judges. The contingency tables were used to compare each judge with every other judge. Agreement was calculated by adding the table entries indicated by a in Figure 2. They were the diagonal entries. The e on the diagonal was not included in the agreement total because it served no purpose and happened very few times.

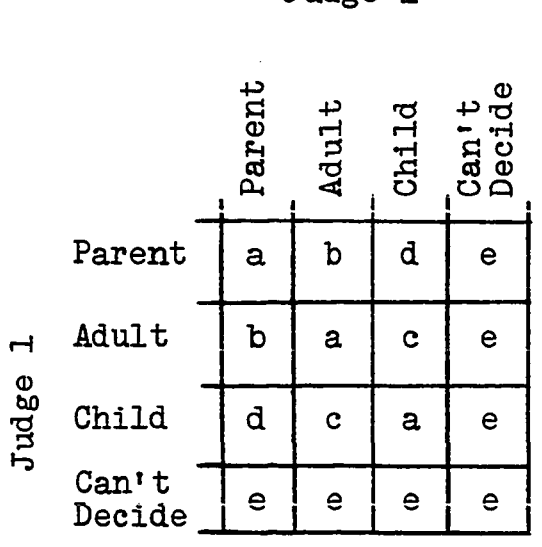


Figure 2. A representation of the contingency chi-square tables used to establish judge reliability

Disagreement was calculated four ways. The first way entailed adding the number of responses in the b positions in Figure 2. This is where the two judges placed Parent photographs in the Adult classification. That is, when judge 1 indicated that a photograph was in the Parent ego state and judge 2 indicated that the same photograph was in the Adult ego state or if the judges indications were reversed, then a Parent to Adult disagreement has occurred.

The second way of calculating disagreement was by adding the number of responses the two judges made indicating a Child to Adult disagreement as indicated in c position of Figure 2. That is, when judge 1 indicated that a photograph was Child ego state and judge 2 indicated that the same photograph was in the Adult ego state or if the judges indications were reversed. Then a Child to Adult disagreement has occurred.

The third way of calculating disagreement was by adding the number of responses the two judges made indicating a Parent to Child disagreement as indicated by d in Figure 2. That is, when judge 1 indicated that a photograph was in the Child ego state and judge 2 indicated that the same photograph was in the Parent ego state or if the judges indications were reversed, a Parent to Child disagreement has occurred.

The fourth way of calculating disagreement was by

adding all of the responses in the "can't decide" classification as indicated by the e position in Figure 2.

The other statistical method used in selecting the photographs was frequency counts of the four classifications. Once judge reliability had been established the photographs could be selected by the frequency count.

Reliability of judges

The reliability of the judges was based on the number of agreeing responses and the number of disagreeing responses between the judges.

In determining the general level of reliability a combination of the agreement and disagreement comparisons was made. The more reliable judges had high scores on the agreement comparison and a low score on the Parent to Child comparison, the Parent to Adult comparison and the Child to Adult comparison.

Four tables were constructed to aid in the analysis of the comparisons. Table 1 presents the agreement dimension of the comparisons. The higher the score for agreement, the more reliable a judge was thought to be. Table 2 presents the Parent to Adult ego state comparisons. The more reliable judges had a lower score. Table 3 presents the Child to Adult ego state comparisons. Again, the lower the score, the more reliable the judge. Table 4 presents the

Table 1. A summary of the judge by judge photograph comparison scores for ego state agreement

Judges	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	101													
3	83	92												
4	98	115	100											
5	105	117	104	123										
6	86	104	116	111	105									
7	79	107	107	96	103	109								
8	109	116	115	135	138	131	113							
9	102	111	105	111	115	109	108	119						
10	87	102	79	105	109	93	100	95	93					
11	100	113	117	111	126	110	113	121	119	102				
12	101	112	114	128	124	114	117	125	117	117	95			
13	92	115	111	120	123	107	119	129	118	110	126	129		
14	109	112	110	120	131	114	108	121	123	114	125	143	140	
15	99	102	101	113	109	117	103	122	94	95	108	113	112	114

Table 2. A summary of the judge by judge photograph comparison scores for disagreement between the Parent and Adult ego states

Judges	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	35													
3	38	36												
4	38	30	37											
5	36	32	32	26										
6	50	42	31	28	37									
7	48	36	37	43	39	37								
8	36	34	31	28	28	42	42							
9	31	16	40	39	28	40	37	40						
10	45	31	37	26	29	36	32	38	32					
11	32	28	20	25	22	30	28	40	25	33				
12	34	22	21	22	25	23	28	25	24	22	19			
13	43	26	30	28	28	31	27	31	32	20	23	21		
14	31	30	33	31	20	39	40	35	25	24	17	16	20	
15	36	37	22	30	35	26	36	26	42	35	21	25	26	29

Table 3. A summary of the judge by judge photograph comparison scores for disagreement between the Child and Adult ego states

Judges	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	18													
3	34	37												
4	16	14	28											
5	11	14	33	13										
6	26	27	23	24	32									
7	26	27	27	23	30	23								
8	12	19	25	18	13	17	20							
9	15	16	15	9	19	17	20	10						
10	15	16	46	23	23	34	29	25	22					
11	20	19	31	20	19	31	30	20	16	29				
12	34	21	31	13	15	33	27	19	18	22	24			
13	43	25	28	14	20	24	25	14	13	31	22	19		
14	17	20	25	10	14	20	22	14	13	25	23	11	9	
15	18	25	38	20	22	24	29	22	21	25	35	26	26	22

Table 4. A summary of the judge by judge photograph comparison score for disagreement between the Parent and Child ego states

Judge	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2	19													
3	14	19												
4	20	27	17											
5	22	26	16	25										
6	8	11	10	10	11									
7	20	23	13	24	19	15								
8	17	20	14	16	21	5	15							
9	18	26	14	18	18	10	14	11						
10	21	34	17	27	23	17	22	26	27					
11	17	23	12	25	17	8	12	13	15	14				
12	19	31	16	21	23	12	14	18	18	21	13			
13	16	17	12	19	13	8	12	10	11	17	9	12		
14	14	22	12	21	20	7	14	15	14	16	14	12	10	
15	10	14	12	13	12	7	9	8	12	18	9	11	9	9

Parent to Child ego state comparisons. This comparison score had to be very low if the judges were to be considered reliable. In general, it was desirable to have a high agreement score and a low disagreement score on all three types of errors.

Table 5 is a summary of the photograph classification scores. The percent figures are all based on the total number of photographs. The photograph comparison dimension of agreement had an average of 111 photographs with a range of scores from 79 to 143.

The photograph comparison dimension of Parent to Adult had an average of 31 photographs and a range of 16 to 50. The photograph comparison dimension of Child to Adult had an average of 22 photographs and a range of 9 to 43. The Parent to Child photograph comparison dimension had an average of 16 photographs and a range of 5 to 34.

In analyzing the data it was found that some judges were better than others in that they consistently agreed with all of the other judges or a particular cluster of judges. It was found that a cluster of seven judges were very effective for the Parent ego state, a cluster of nine judges were very effective for the Child ego state and a cluster of 11 judges were very effective for the Adult ego state and to a degree for the other two ego states.

Based on the judge reliability data, frequency counts

Table 5. Summary of photograph classification scores using judge by judge comparisons of agreement and disagreement

Photograph Comparison Dimensions	N	%	Range of Scores			
			Low Score	% of Total	High Score	% of Total
Parent Adult Child Agreement	111	58.4	79	41.6	143	75.2
Parent to Adult	31	16.3	16	8.4	50	26.3
Child to Adult	22	11.6	9	4.7	43	22.6
Parent to Child	16	8.4	5	2.6	34	17.9
Can't Decide	10	5.3				
Total	190	100				

by the Parent, Adult, Child and "can't decide" categories were calculated using the best judges for each category. In order for a photograph to qualify for the final selection it had to be unanimously selected by the judges in the appropriate category and by the judges with the highest overall rating reliability. Using the frequency count data for the cluster of seven judges, the Parent ego state and

the 11 judge cluster as a backup, the items with a unanimous rating in both frequency tables were selected. There were nine photographs that met these basic requirements. These were then checked against the frequency count for all judges. It turned out that all nine photographs received unanimous ratings from the 15 judges.

The five photographs that met the minimum criteria for the Adult ego state were given unanimous ratings by the 11 judge cluster and all judges.

The seven photographs that met the minimum criteria for the Child ego state were given unanimous ratings by the nine judge cluster, the 11 judge cluster and by all judges.

It turned out that all 21 photographs that met the minimum criteria were selected by all judges. The clustering of the judges was not absolutely necessary but it did confirm and contribute to obtaining the best photographs for this study.

The 21 photographs were reduced to 10 by the researcher. There were a number of photographs selected out because of duplication of gestures, postures or facial expressions. Two photographs were selected out because they were so obvious that they would have been of little use in this research project. The remaining photographs were selected out to obtain the planned number of photographs for each ego state.

The selected photographs

The four photographs selected to represent the Parent ego state (Figures 3, 4, 5, 6) utilized the following nonverbal communication factors:

1. The eyes were squinty to normal with one photograph having the eyes peer over the top of the glasses.
2. The mouth was pursed or tight.
3. The head was basically straight or tilted forward.
4. The body had positions of straight, leaning forward and seated.
5. The legs were straight.
6. The arms were straight, crossed, pointing and on hips.
7. The hands were fist-like in one photograph and finger pointing in another photograph.

The two photographs selected to represent the Adult ego state (Figures 7, 8) utilized the following nonverbal communication factors:

1. The eyes were normal and attentive.
2. The mouth had a slight smile.
3. The head was erect and straight forward.
4. The body was straight to leaning forward with one photograph having the person seated.

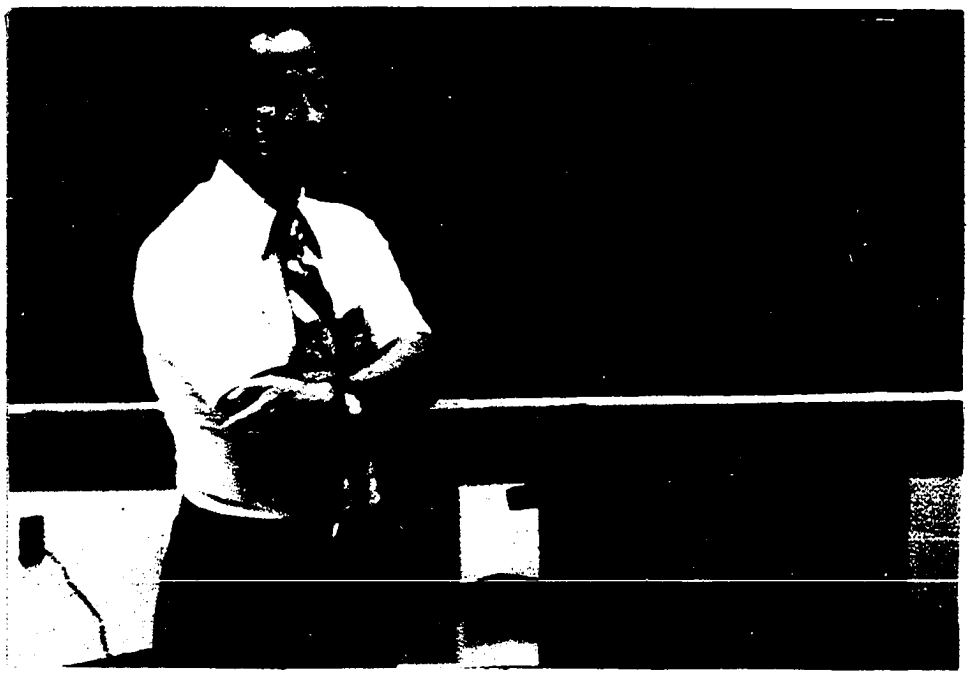


Figure 3. Photograph number three representing the Parent ego state

Figure 4. Photograph number four representing the Parent ego state

Figure 5. Photograph number six representing the Parent ego state

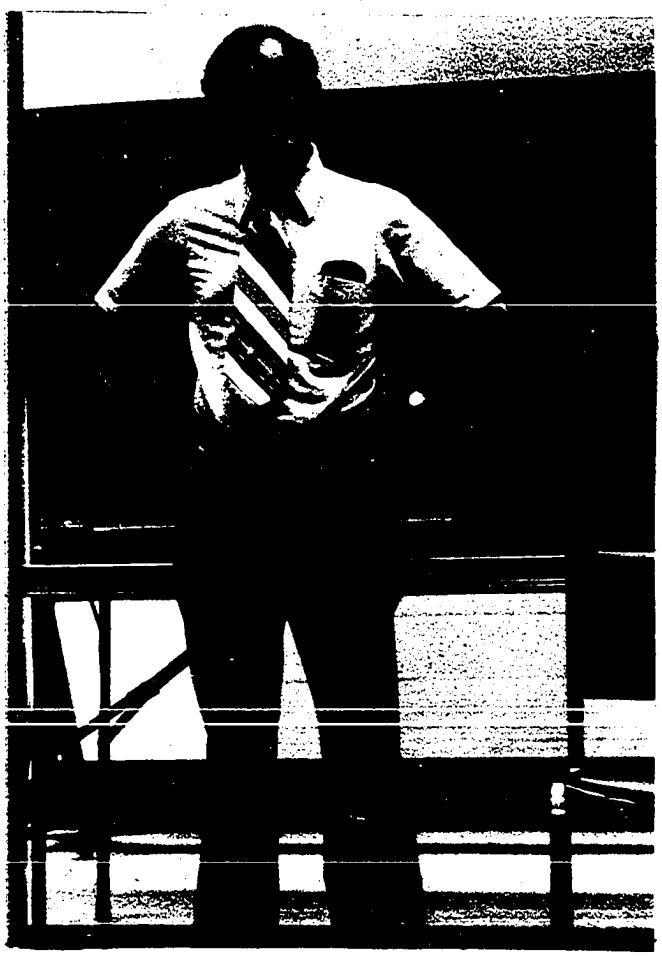


Figure 6. Photograph number nine representing the Parent ego state

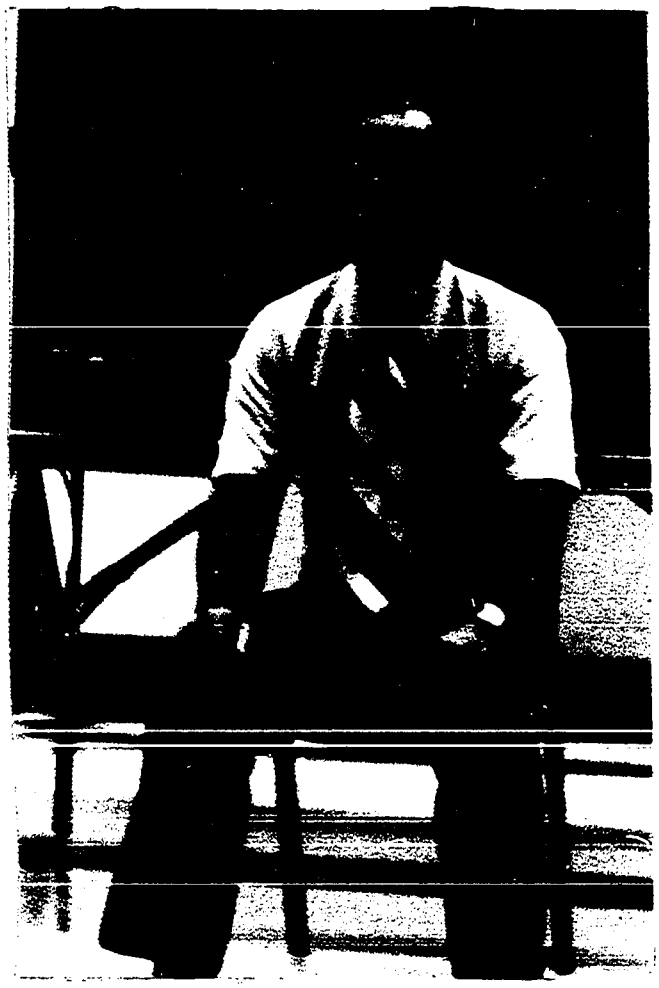


Figure 7. Photograph number two representing the Adult ego state

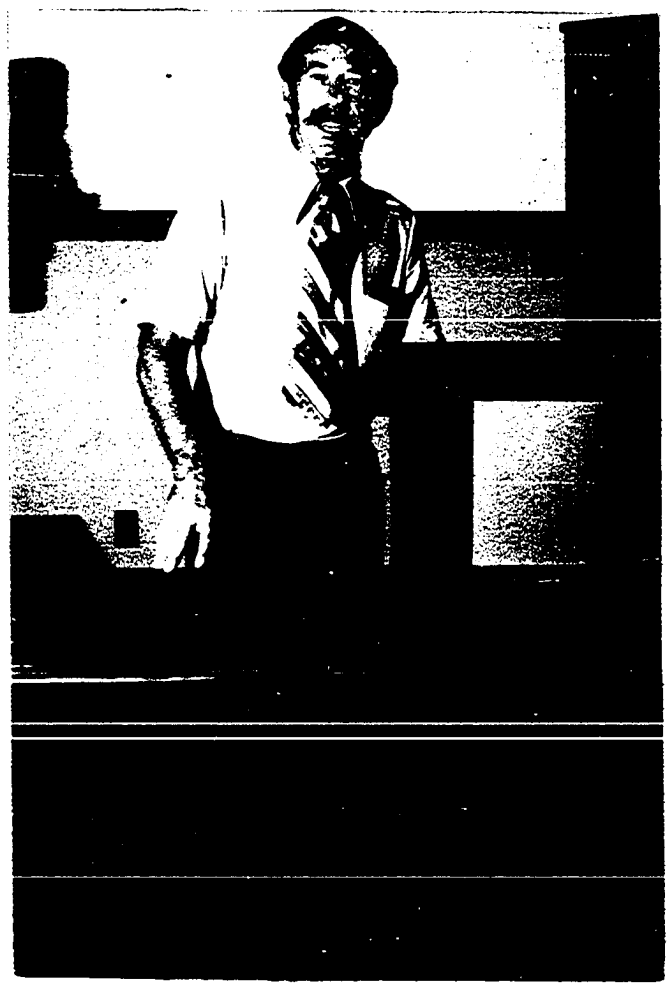


Figure 8. Photograph number eight representing the Adult ego state

5. The legs were straight and slightly open.
6. The arms were straight and open.
7. The hands were palms down.

The four photographs selected to represent the Child ego state (Figures 9, 10, 11, 12) utilized the following nonverbal communication factors:

1. The eyes were squinty to wide open.
2. The mouth had a wide grin.
3. The head was straight forward to slightly tilted.
4. The body was erect with one photograph having the person seated.
5. The legs were spread.
6. The arms were gesturing, waving and pointing.
7. The hands were palms up.

The ten photographs selected for the study were randomly ordered for the main portion of this study.

Instrument

A form (Appendix C) was developed to gather the necessary data. The form contains 16 variable statements and 10 photograph columns. The participants were asked to rate each statement utilizing a rating scale with a range of 1 through 99. The number 1 indicated a strong disagreement and the number 99 represented a strong agreement. The middle portion of the scale indicated the participant neither agreed

Figure 9. Photograph number one representing the Child ego state

Figure 10. Photograph number five representing the Child ego state

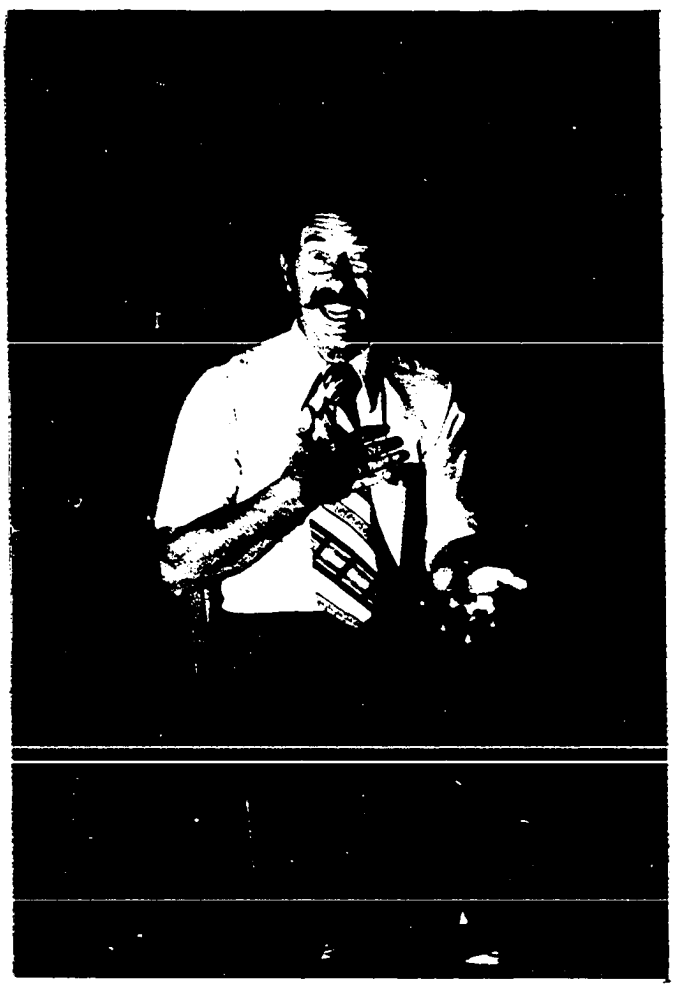


Figure 11. Photograph number seven representing the Child ego state

Figure 12. Photograph number ten representing the Child ego state

nor disagreed with the statement. The participants were asked to respond to the 16 statements while viewing 10 slides. This called for 160 two-digit responses.

Each participant was asked to record their names, titles, name of the course they were attending, nature of their organization, their age, their sex, and the extent of their education.

The organizational nature included industrial, health oriented, insurance, utility, educational and "other" categories. The educational level data categories started at less than high school, to high school, to trade school, to some college, to Bachelor degree, to Master degree, to Ph.D. degree.

Sample

The managers that were asked to participate in this experimental project were enrolled in management development programs directed by the Engineering and Management Institute located at Iowa State University. The total number of participants was 323. There were 291 males and 32 females.

Data Gathering Procedure

The participants were all attending various developmental programs through a two-month period. The data were typically gathered after the first day's noon lunch break. The preference form was distributed as the participants returned to the meeting room. The verbal directions given covered the procedure that would be followed, the situation and a briefing on the rating scale.

The procedure called for showing one photograph in slide form for 2½ to 3 minutes while the participants rated the 16 statements. This procedure was followed through the first six groups (162 participants). The procedure was then altered so that each statement was rated through the ten photographs. The photographs were shown 16 times. Each viewing lasted from 5 to 12 seconds. The first two times the photographs were shown to a group, a longer duration for viewing was allowed and then the time was reduced to the 5 second interval.

The participants were asked to put themselves in a situation where the photographs they viewed were of their instructor who has repeated the pose of the photograph quite frequently during the last two hours.

Statistical Method

The statistical treatments were fairly simple and yet they were complicated by the number of item ratings. The first step was to group the respondents into the appropriate subgroups. The three educational levels were divided so that level one included all respondents up through those that had completed high school. Educational level two included all of the respondents with more than high school and up to those just short of a college degree. Educational level three included all of the respondents with a bachelor's degree or higher.

The age levels were grouped into six levels. The range of ages ran from 21 through 64. The range of ages for age level one was 21 through 28 and accounted for 52 respondents. There were 51 respondents in age level two and the ages ranged from 29 through 33. The third age level had 49 respondents and had an age range of 34 through 39. The fourth age level had an age range of 40 through 44 and accounted for 44 respondents. The fifth age level had 48 respondents and a range of ages from 45 through 50. The sixth age level had a range of ages from 51 through 64 and had 47 respondents.

The second step in treating the data called for transforming all the ratings into normalized scores. Wolins and Dickinson (147) indicate the transformation process utilizes

the standard normal deviates. A score of one was replaced with a score of -2.33 and a score of 99 was replaced with a score of +2.33. A score of 50 was replaced with a score of 0.0. The normal deviate scores were adjusted to eliminate decimal fractions and negative values. These normalized scores were used for the Analysis of Variance calculations and for plotting the graphs and profiles.

An unweighted mean Analysis of Variance was carried out. The main sources of variation were age, educational level, statement variables, and photographs. An important part of the Analysis of Variance was the interactions between all of the main sources of variation. Interactions were necessary in order to make statements concerning the ego states.

Because of the large number of ratings, and the use of means, it was necessary to adjust the sums of squares for all of the sources of variation except the within sums of squares. The adjustment factor was the harmonic mean and the following formula was used:

$$\bar{X}_h = \left(\frac{\sum_{L-1}^{3} \sum_{j}^{6} \frac{1}{n_{Lj}}}{3.6} \right)^{-1}$$

The sums of squares were adjusted by multiplying each one

by the harmonic mean. The calculations were then completed in the normal manner.

RESULTS

This chapter is divided into three main sections. The first section presents the statistical analysis relevant to the null hypotheses. The second main section presents data in graphical form for the male and female respondents. The first part of this data is presented to show the consistency and strength of the ratings of the photographs representing the ego states. The second part of the data is presented to show the consistent pattern of the male and female ratings of the photographs. The third part of the data presents the profiles of the ego states for the 16 statement variables.

The third main section presents the data relevant to the educational levels. The first part of this section deals with the strength and consistency of the rating patterns of the photographs. The second part of this section presents the profiles of the ego states for the statement variables.

Statistical Analysis

The analysis of variance was carried out in order to test the null hypotheses. Only two of the hypotheses could be tested due to the small number of female respondents. The statistical analysis was made using only the male respondents. There were a total of 291 male respondents.

The calculation of the analysis of variance components was complicated by the quantity of response ratings. The calculations were made by reducing the data down into smaller components, performing the required calculations, and then putting the components into the appropriate sources of variation. Calculating the variance components in this manner caused the sums of squares to need adjusting. This adjustment was made through utilizing the harmonic mean as a constant multiplier factor. The harmonic mean was 14.160855.

Table 6 presents the relevant data for testing the hypotheses. The first hypothesis was:

Ho_1: There will be no significant differences in the ratings of the photographs due to the age of the rater.

The F ratio for age was 0.403. This was definitely not significant. There were no rating differences due to the age of the respondents. Age did not interact significantly with any of the other variation sources. The data did indicate that younger respondents tended to have more education than the older respondents.

The second hypothesis was:

Ho_2: There will be no significant differences in the ratings of the photographs due to the educational level of the rater.

Table 6. Analysis of variance due to age and educational level

Source of Variance	Sums of Squares	df	Mean Square	F
Age	15.6963	5	3.139	0.403
Education	23.2548	2	11.627	1.501
Age x Education	98.6969	10	9.870	1.269
Error	2122.9616	273	7.776	
Total	2260.6096	290		

The F ratio for educational level was 1.501 and it was not significant. There were no main effect rating differences due to the educational level of the respondents.

Tables 7, 8 and 9 were concerned with interactions between statement variables, photographs, age, and educational level.

It was found that a main source of variation could be attributed to the statements and that the interactions accounted for only a slight amount of the variance. The F ratio for statements was 55.267 which was significant at the .01 level. Another main source of variance was attributed to the photographs. The F ratio for photographs in Table 8 was 33.022 which was significant to the .01

Table 7. Analysis of variance due to statement variables

Source of Variance	Sum of Squares	df	Mean Square	F
Statements	816.1158	15	54.408	55.266**
Age x Statement	19.8396	75	0.265	0.268
Education x Statement	37.1297	30	1.238	1.257
Age x Education x Statement	160.9984	150	1.073	1.090
Within	4031.3675	4095	0.984	
Total	5065.4510	4365		

**Significant at .01 level.

Table 8. Analysis of variance due to photographs

Source of Variance	Sums of Squares	df	Mean Square	F
Photograph	385.0795	9	42.787	33.021**
Age x Photograph	93.1014	45	2.069	1.596
Education x Photograph	49.4734	18	2.749	2.121**
Age x Education x Photograph	104.0067	90	1.156	0.891
Within	3183.5377	2456	1.296	
Total	3815.1987	2619		

**Significant at .01 level.

level. It was also noted that there was a slight degree of significance in the educational level by photograph interaction. Data will be presented later in this chapter relative to this interaction.

Table 9 indicates that there was a highly significant photograph by statement variable interaction.

The F ratio was 81.164 and was significant to the .01 level. The photograph by statement variable interaction,

Table 9. Analysis of variance due to photograph by statement variable interaction

Source of Variance	Sums of Squares	df	Mean Square	F
Photograph x Statement	4547.3974	135	33.684	81.164**
Age x Photograph x Statement	335.5163	675	0.497	1.197
Education x Photograph x Statement	132.8019	270	0.492	1.185
Age x Education x Photograph x Statement	629.6706	1350	0.466	1.123
Within	15295.3884	36855	0.415	
Total	20940.7746	39285		

**Significant at .01 level.

the main effect of photographs shown in Table 8 and the main effect of statement variable shown in Table 7, had to be significant in order to deal realistically with managers preferences for learning environment. Detailed data will be presented later in this chapter for the male respondents. The hypothesis concerning sex could not be tested due to the small group of female respondents, however, the data gathered on the female respondents will be presented along with the data concerning the male respondents.

Ego State Patterns

This section presents a graphical comparison of the photographs by ego state. The primary interest is consistency of the patterns in each figure.

Figure 13 shows the pattern for the photographs representing the Parent ego state. There was a fairly consistent pattern. There were some differences in the ratings given to several of the statements. The variables of encouragement, punishment, enthusiasm, and learning were different.

The pattern for the photographs representing the Adult ego state was very consistent and is shown in Figure 14. There were some differences in the ratings given to the variables of effective communication, encouragement, and

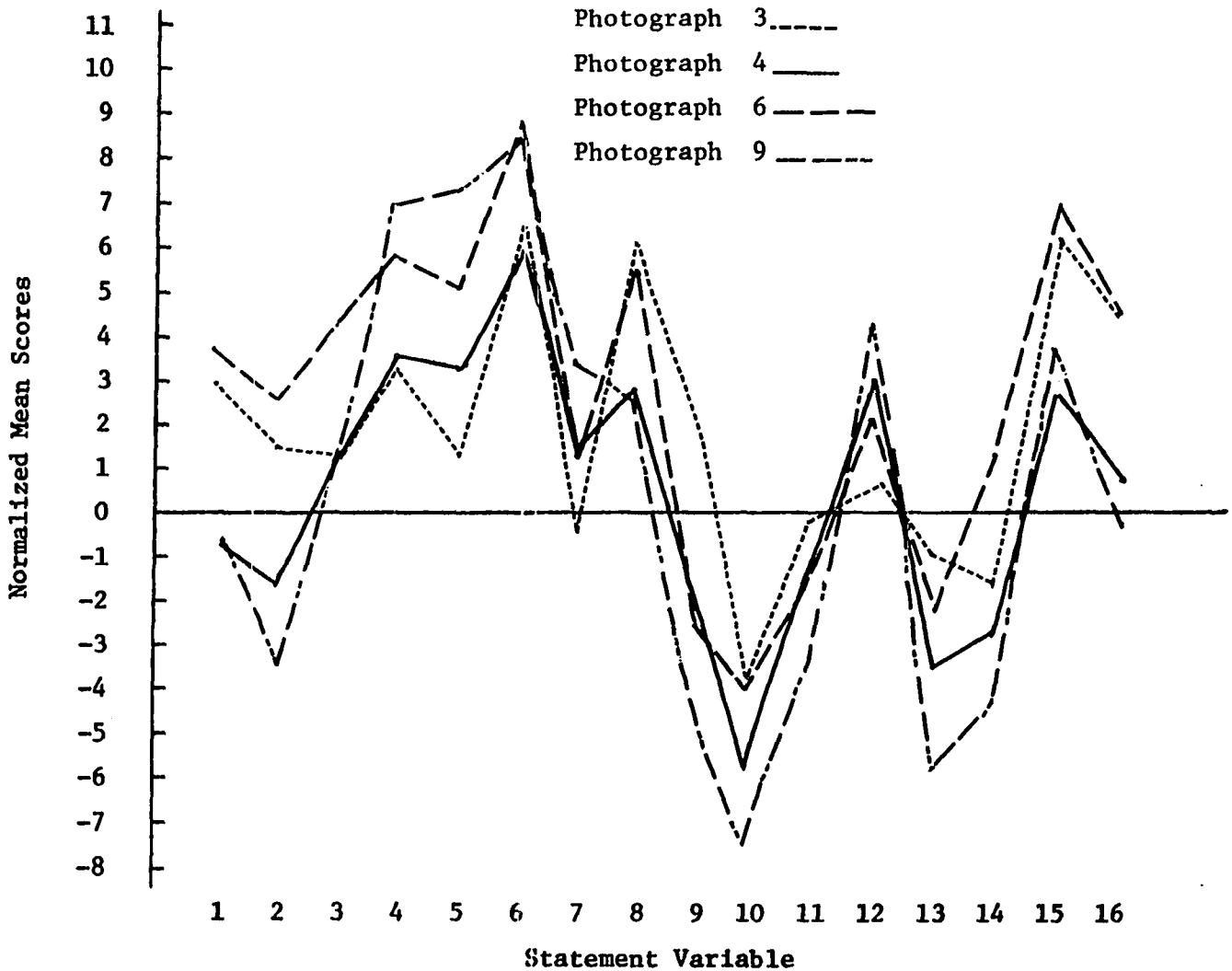


Figure 13. Statement variable profiles for the photographs representing the Parent ego state for the male respondents

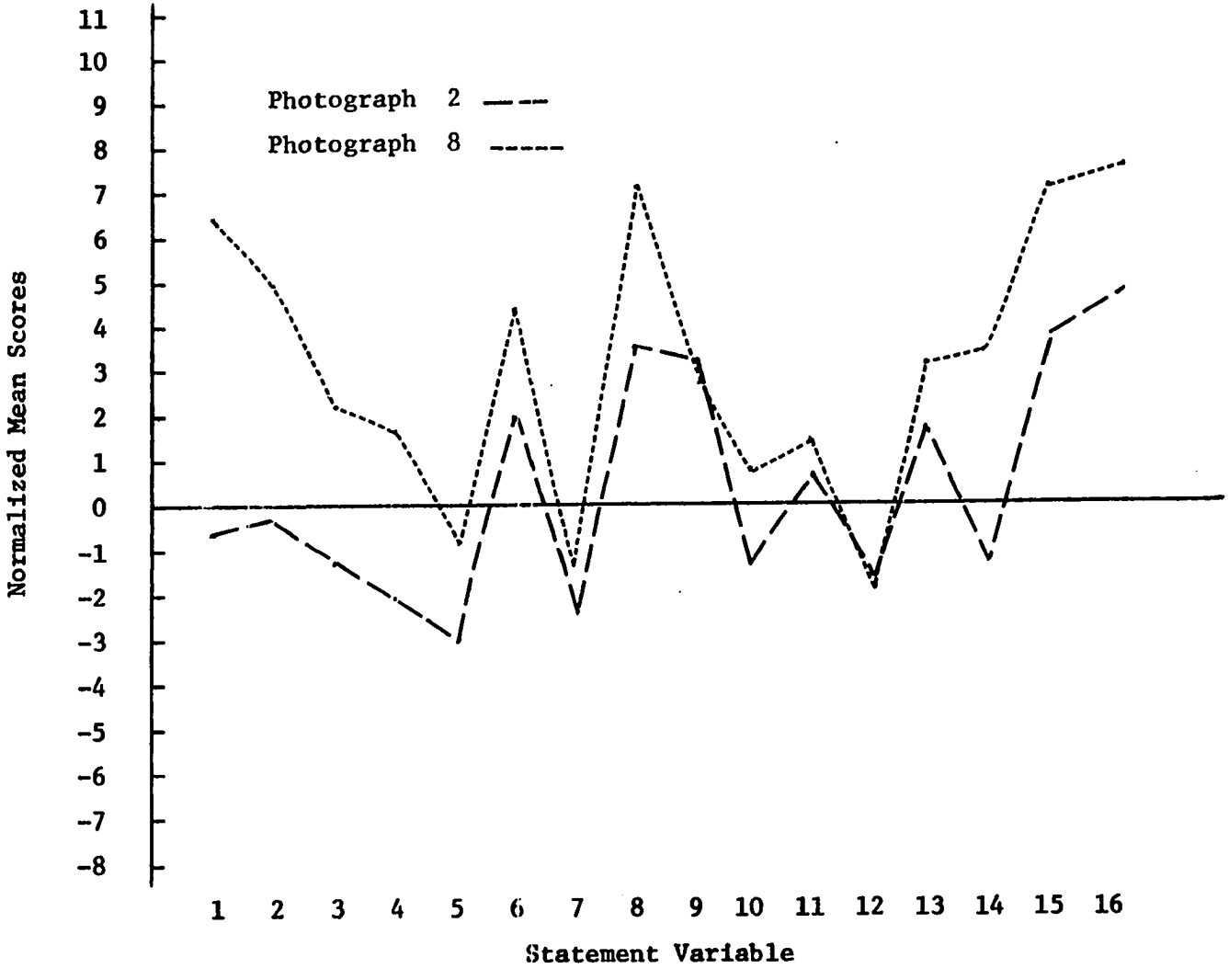


Figure 14. Statement variable profiles for the photographs representing the Adult ego state for the male respondents

enthusiasm.

The pattern for the photographs representing the Child ego state was very consistent as shown in Figure 15. There were some statement variable differences. The ratings given to the variables of effective communication, encouragement, enthusiasm, and learning were slightly different.

Figures 16, 17, and 18 show the patterns for the female respondents. There were only 32 females and they were not included in the statistical analysis.

Figure 16 presents the profiles for the photographs representing the Parent ego state of the female respondents. There were some differences in the variables of effective communication, domination, punishment, self-centered, and learning. The pattern was very similar to the pattern of the male respondents except for the variable of punishment where the female respondents rated the photographs lower.

Figure 17 presents the profiles for the Adult ego state photographs. The Adult ego state had a similar rating pattern but there were quite a few variables with different ratings. Photograph two was rated much lower than photograph eight. The variables with different ratings were effective communications, encouragement, demands performance, competent, fun, enthusiasm, and learning. The

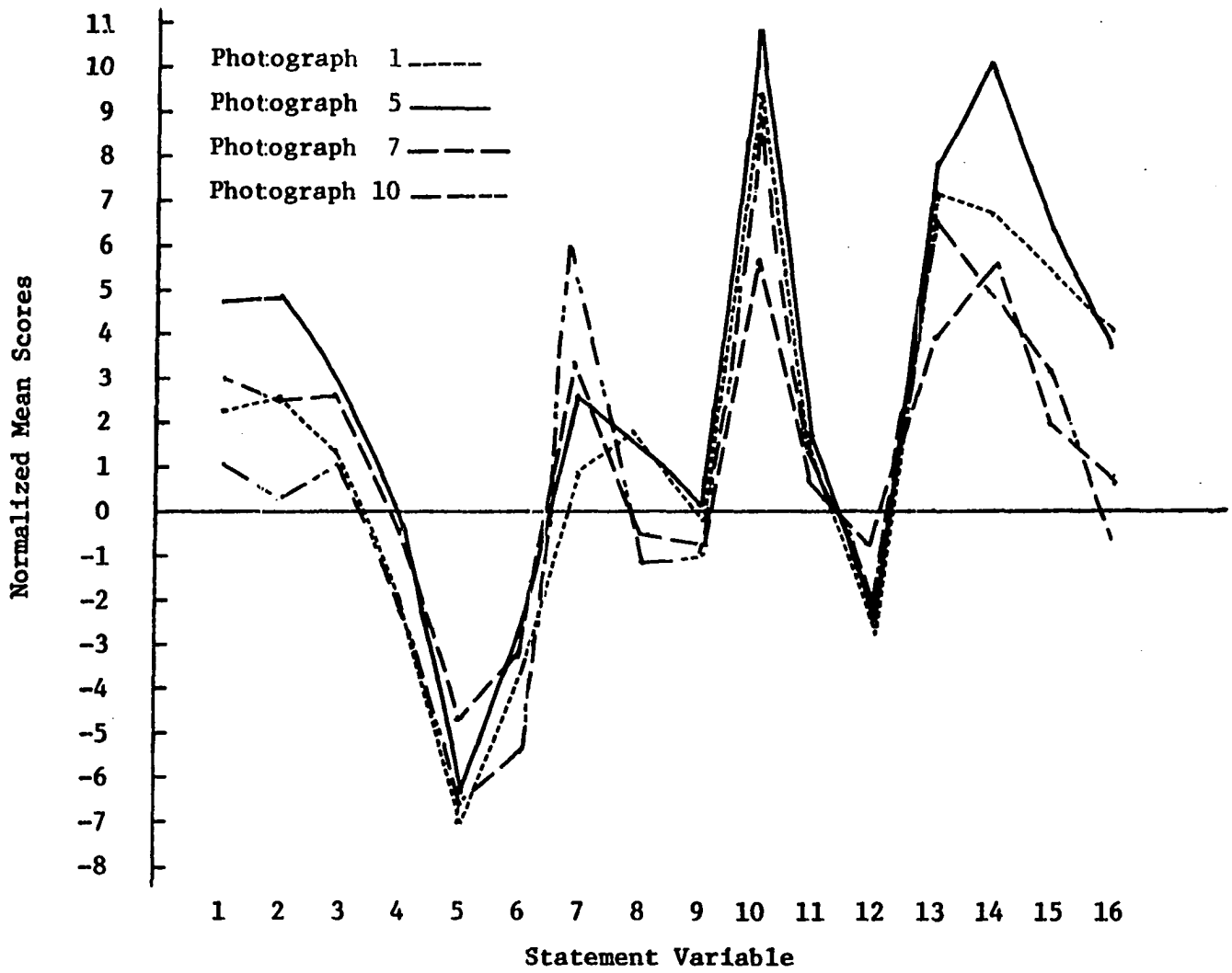


Figure 15. Statement variable profiles for the photographs representing the Child ego state for the male respondents

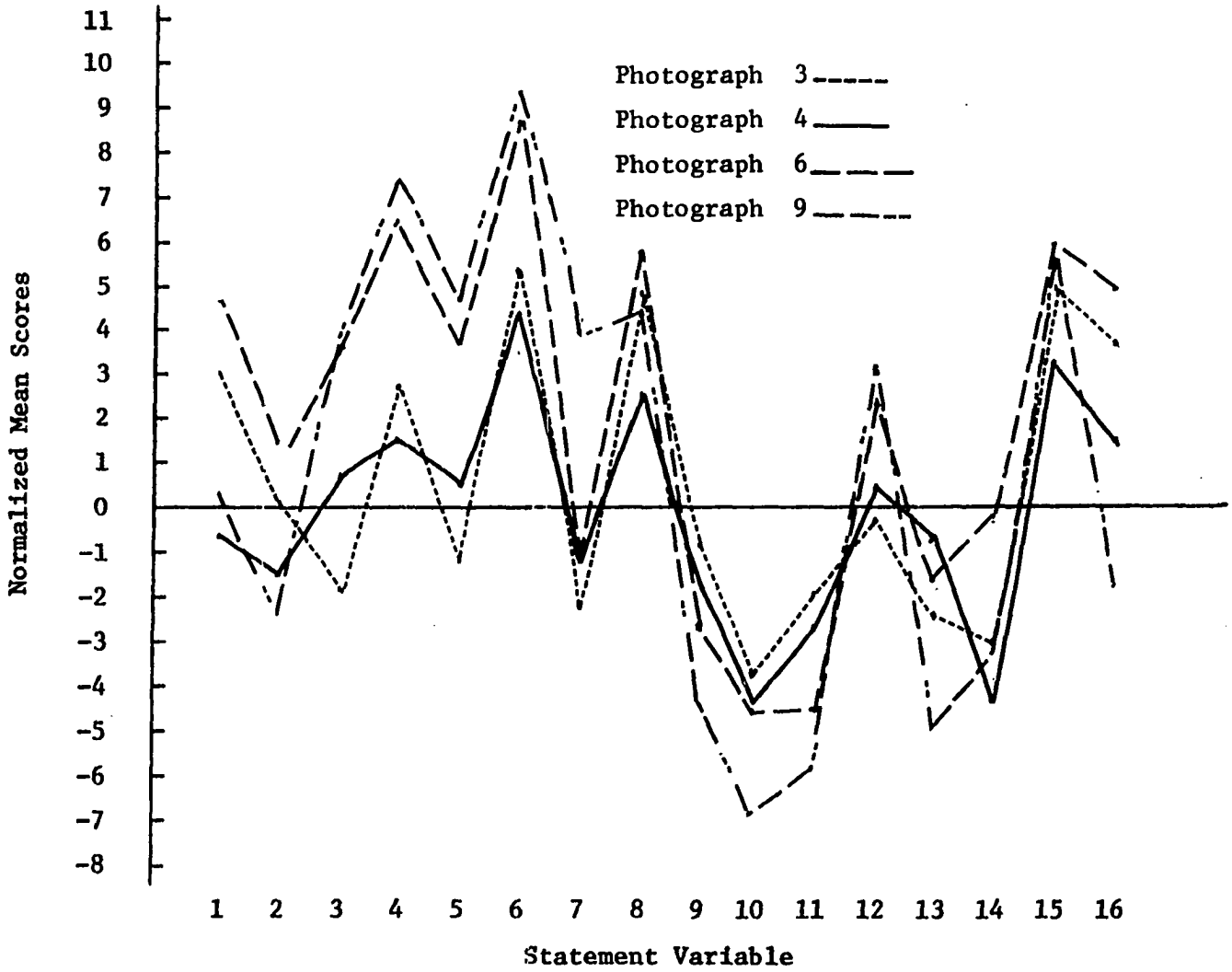


Figure 16. Statement variable profiles for the photographs representing the Parent ego state for the female respondents

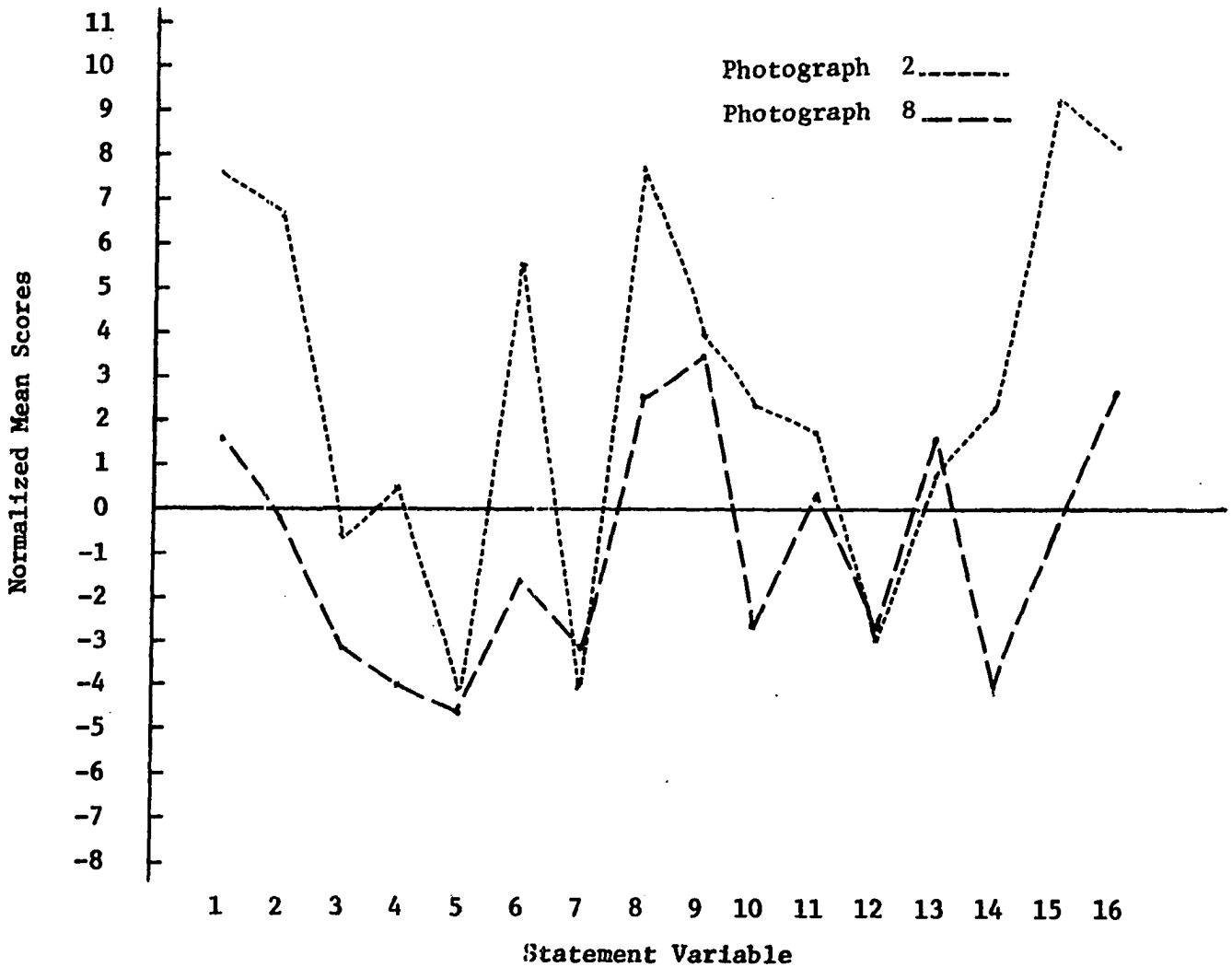


Figure 17. Statement variable profiles for the photographs representing the Adult ego state for the female respondents

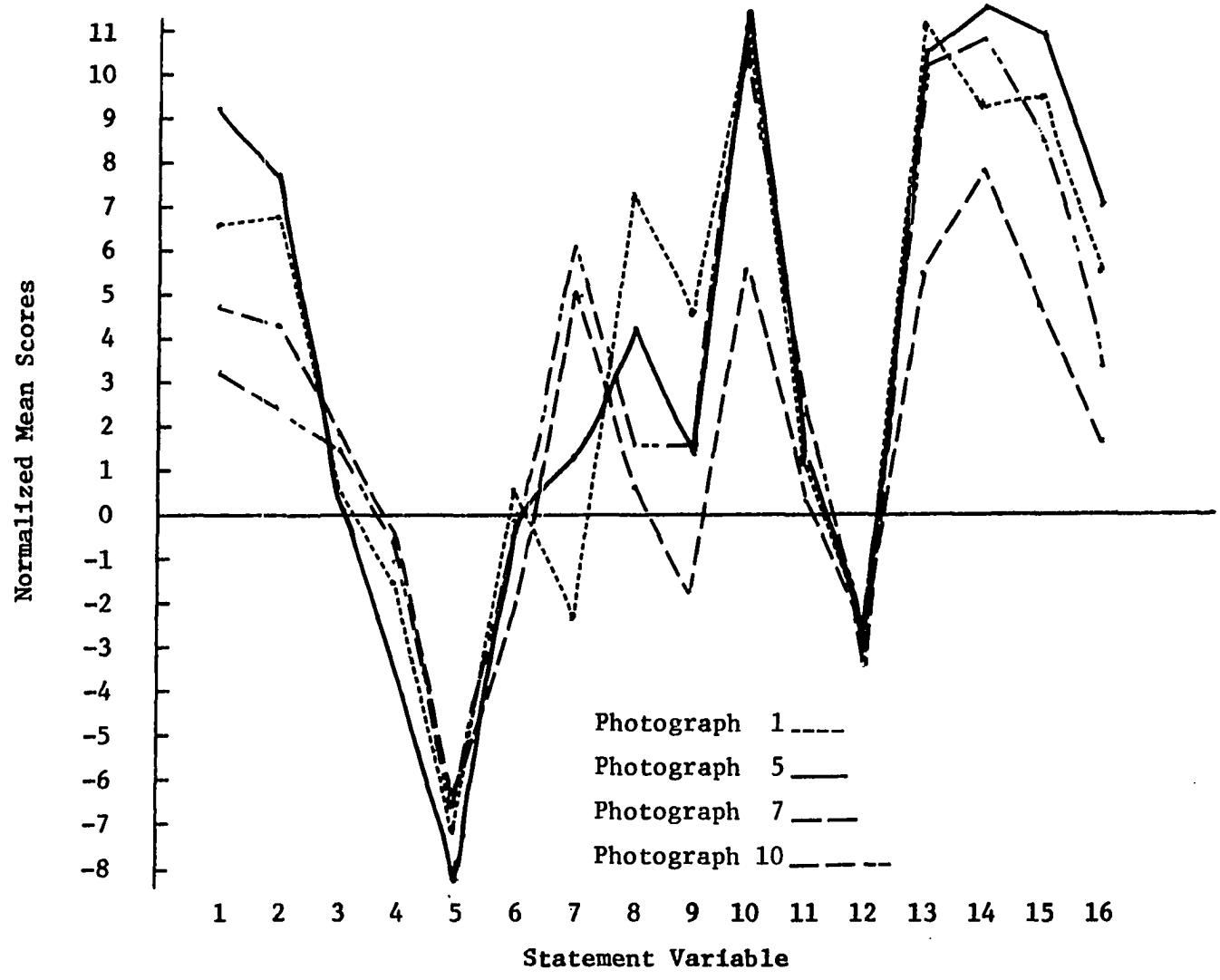


Figure 18. Statement variable profile for the photographs representing the Child ego state for the female respondents

pattern of the female respondents was similar to that of the male respondents except for the variables of effective communication, encouragement, and enthusiasm.

Figure 18 presents the profiles for the Child ego state photographs. The Child ego state had a consistent photograph rating pattern except for the variables of self-centered and competent where photograph one was rated quite differently. The other variables that scored differently but still conformed to the pattern were effective communication, encouragement, sympathy, fun, enthusiasm, confidence, and learning. The male respondents consistently rated the variables of effective communication, encouragement, competence, sympathy, enthusiasm, confidence, and learning lower than the female respondents. The variable of self-centered was ranked higher by the male respondents.

Photograph comparison patterns for males and females

This section contains graphs that compare the responses of the male and female respondents for each of the ten photographs.

A strong pattern was indicated when several of the variables had normalized mean scores greater than seven, either positive or negative. Many of the remaining variables had normalized mean scores in the range of four to seven, either positive or negative.

A moderate pattern was indicated when several variables had normalized mean scores, either positive or negative, in the four to seven range and the remaining variables had normalized scores in the range of negative four to positive four.

A weak pattern was indicated when almost all of the normalized mean scores were in the negative four to positive four range.

A consistent pattern was indicated when the graphs appeared to be very similar.

Figure 19 shows the variable statement pattern for photograph one for males and females to be fairly consistent and very strong. The males rated this photograph more moderately than the females consistently. The variables of effective communication, encouragement, competence, sympathy, warmth, and confidence were rated four points higher by the female respondents.

Figure 20 shows a very consistent but weak pattern for photograph two. The male respondents rated the photograph consistently higher than the female respondents. There were differences in the ratings of the variables of effective communication, demands performance, enthusiasm, and confidence.

Figure 21 shows a moderate, very consistent pattern for photograph three. The male respondents consistently rated

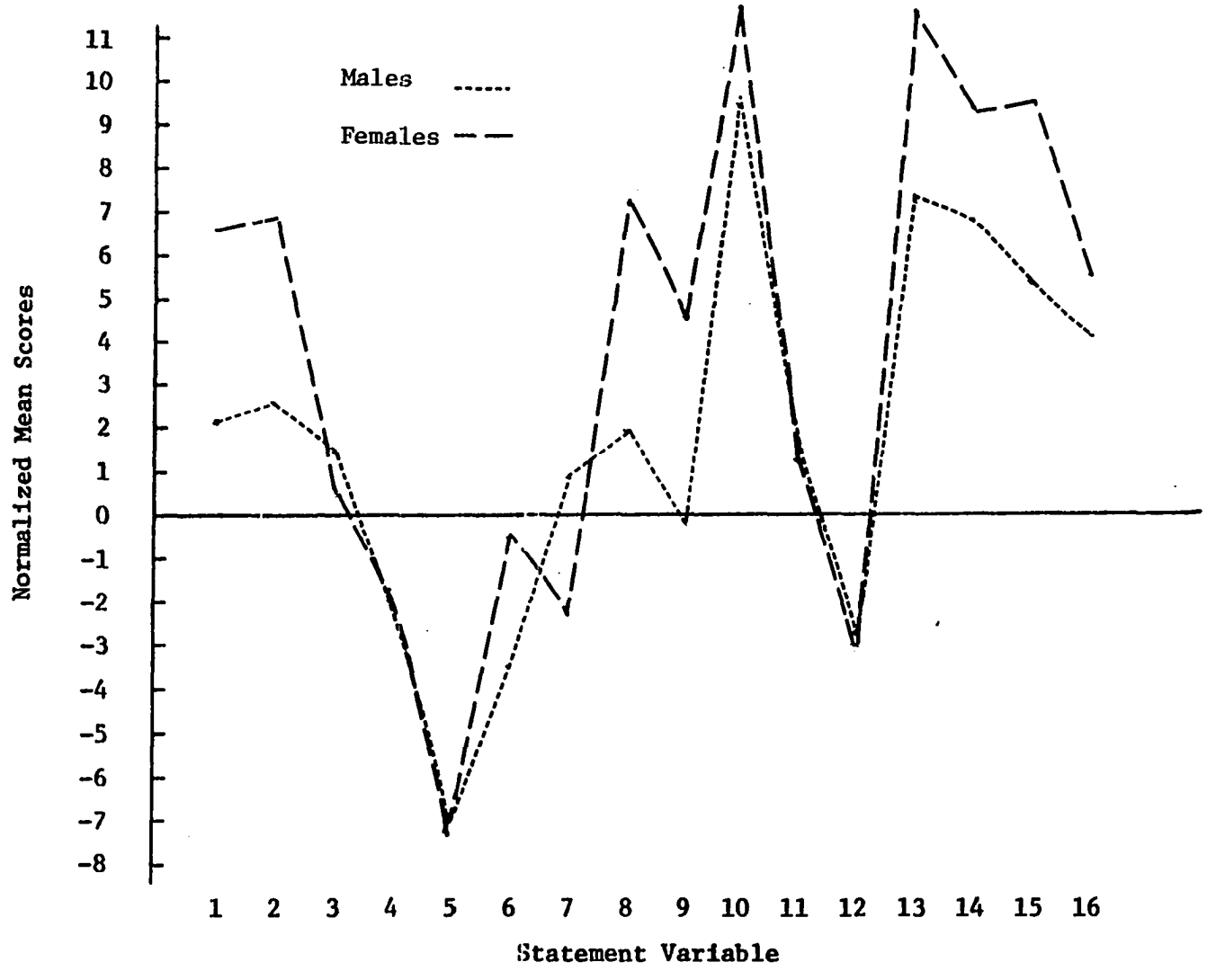


Figure 19. Statement variable profiles for males and females for photograph one

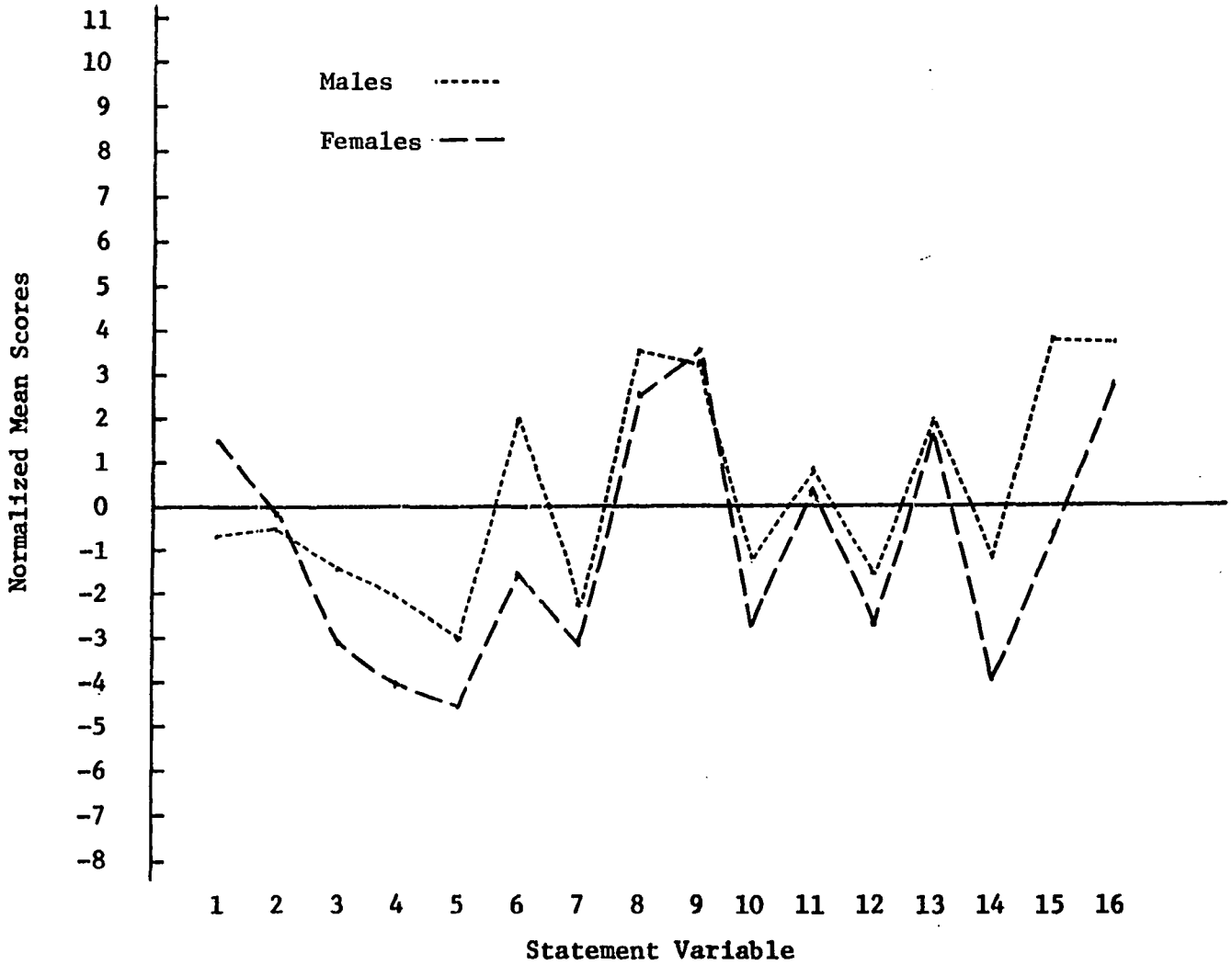


Figure 20. Statement variable profiles for males and females for photograph two

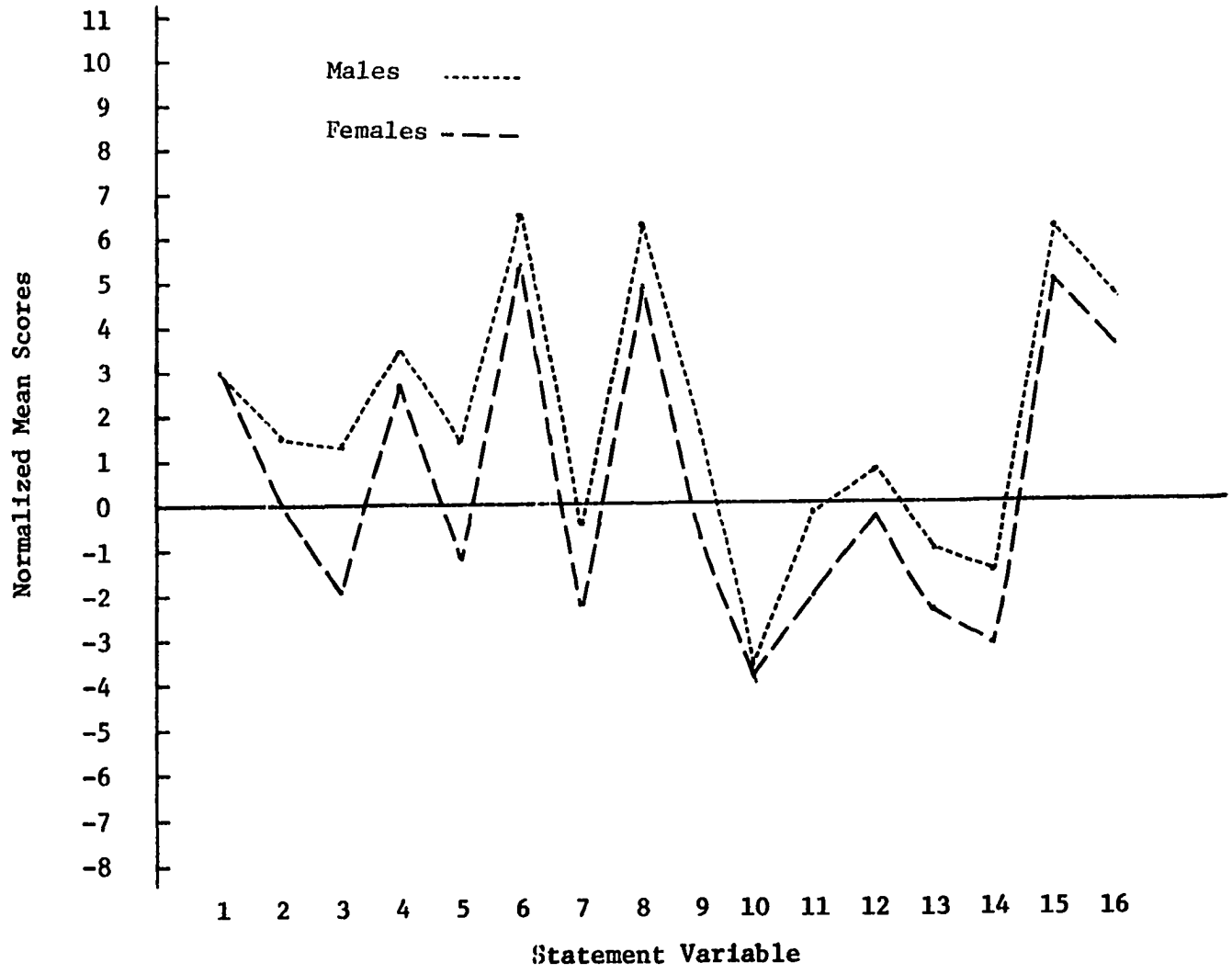


Figure 21. Statement variable profiles for males and females for photograph three

the photograph higher than the female respondents. The variable of manipulation was rated lower by the female respondents.

The pattern for Figure 22 indicated a weak pattern that was consistent. The variables of punishment, self-centered and prejudice were rated higher by the male respondents. The female respondents tended to be more moderate in their rating of the photograph.

Figure 23 shows a very strong and consistent pattern in the ratings of photograph five. The male respondents rated the photograph only slightly more moderately than the female respondents. The variables of effective communication and confidence were rated more positively by the female respondents.

The pattern for photograph six was strong and very consistent as shown in Figure 24. The respondents ratings of the photograph were mixed and the female respondents rated the variable of compliancy more negative than the male respondents.

Figure 25 shows a moderate and very consistent pattern in the ratings of photograph seven. The male respondents tended to be more moderate in their ratings and the variable of effective communication was rated higher by the female respondents.

The pattern shown in Figure 26 for photograph eight is

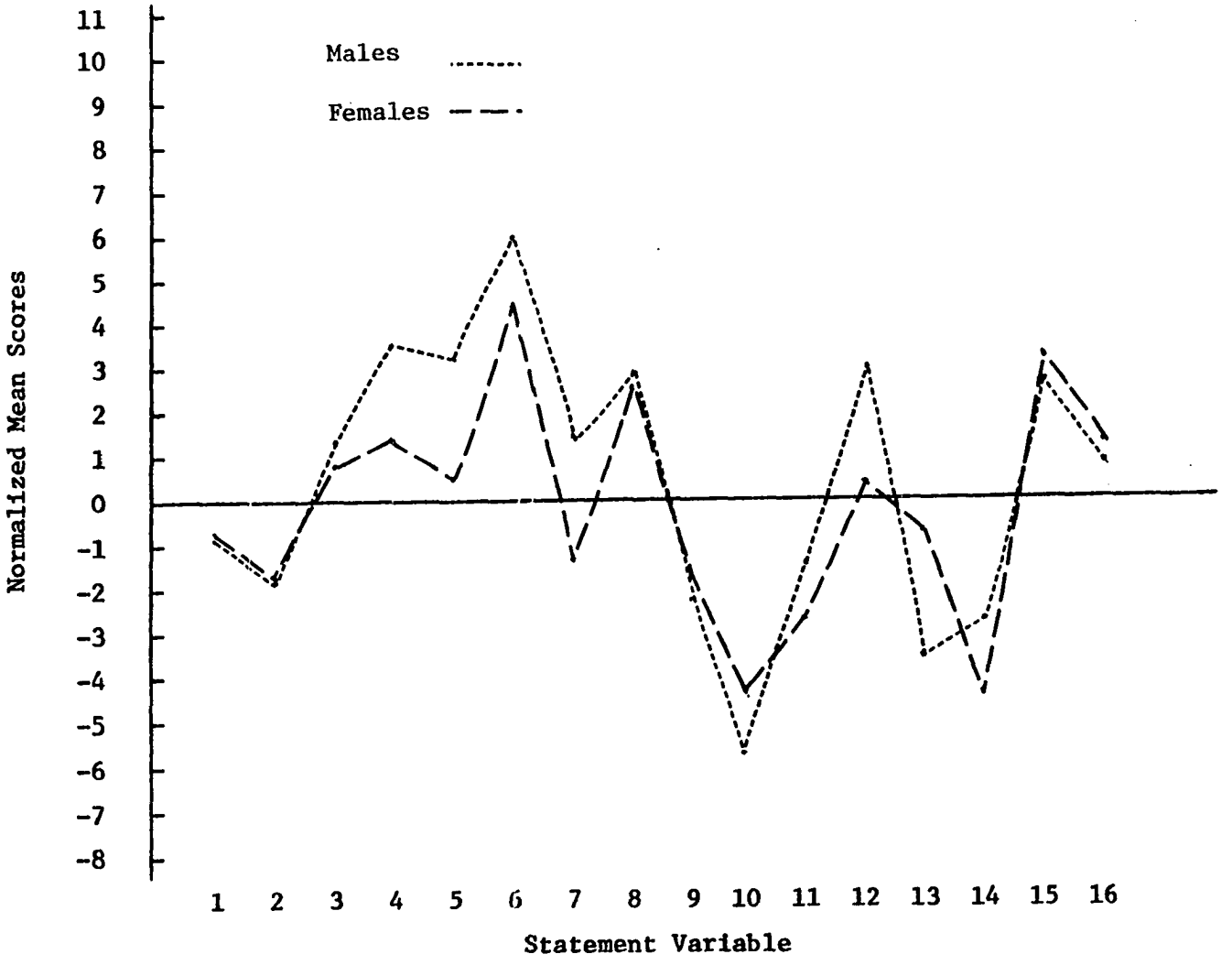


Figure 22. Statement variable profiles for males and females for photograph four

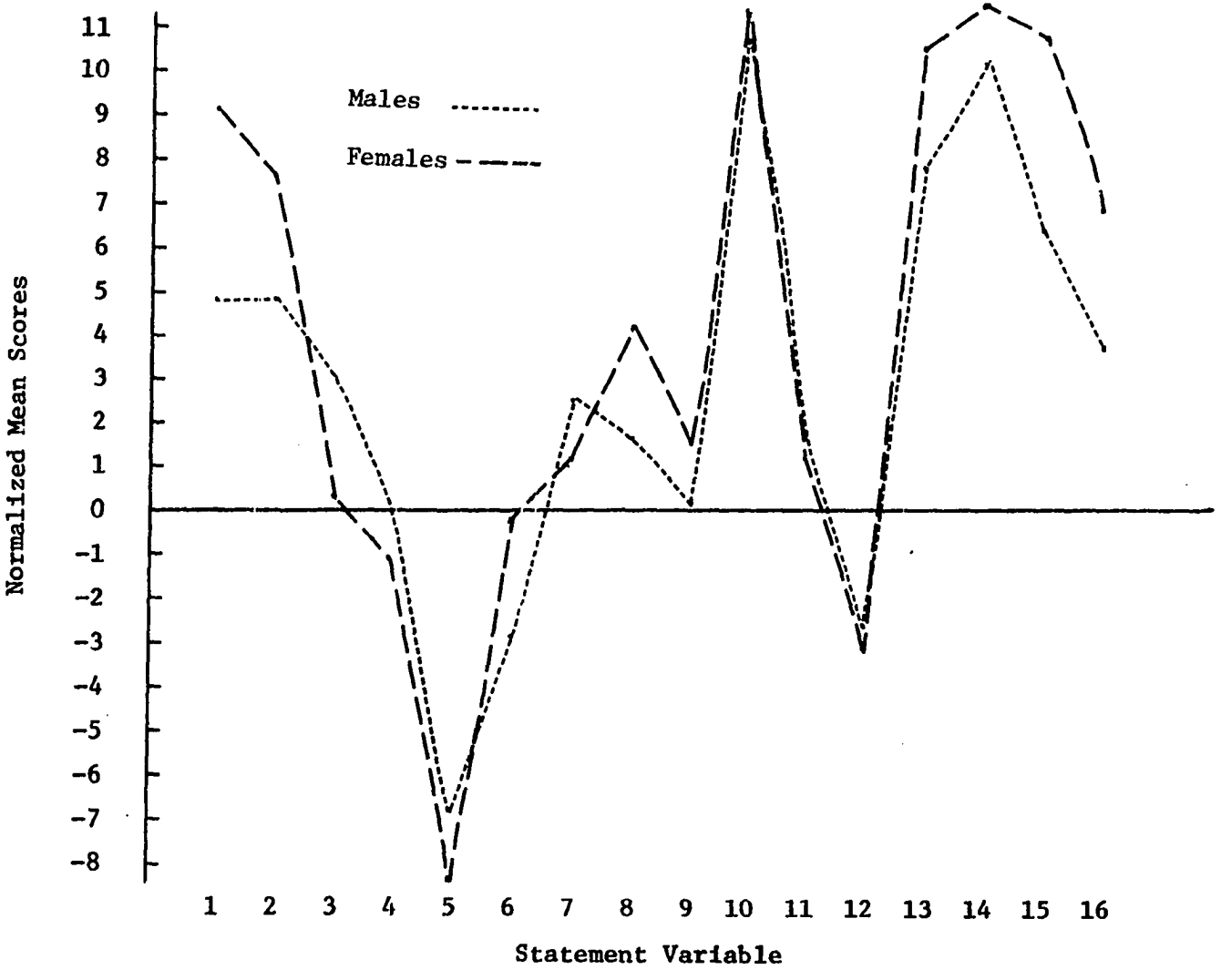


Figure 23. Statement variable profiles for males and females for photograph five

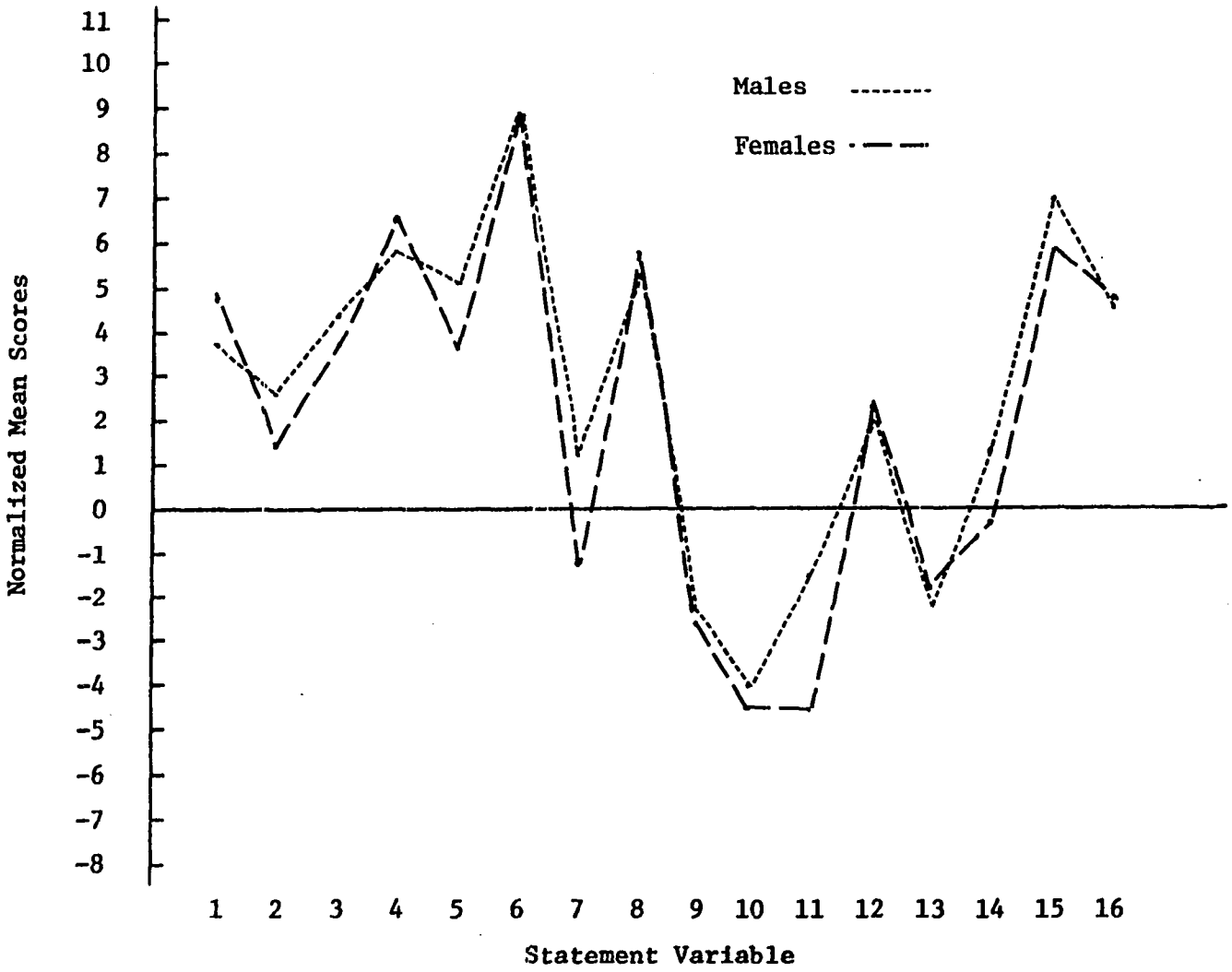


Figure 24. Statement variable profiles for males and females for photograph six

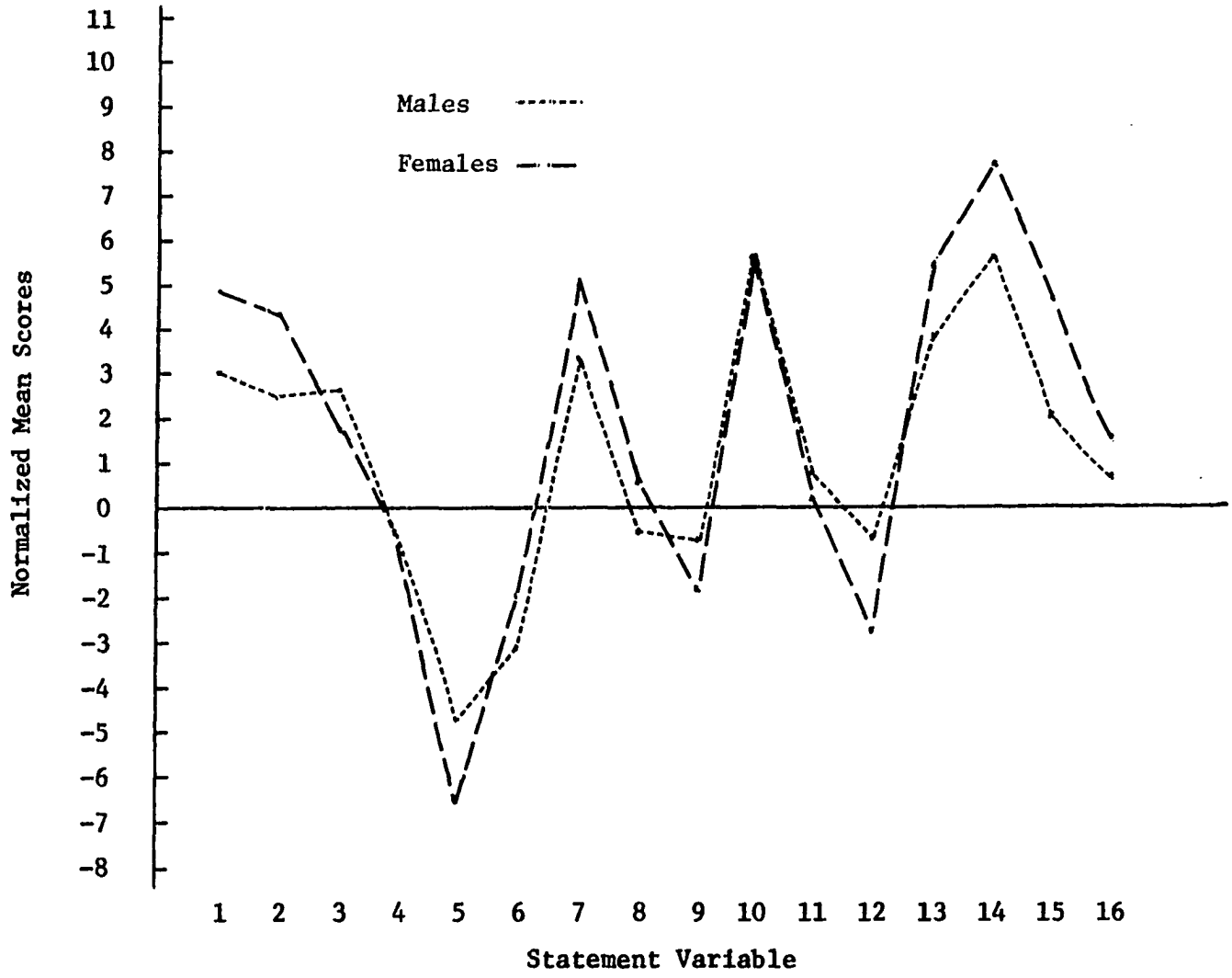


Figure 25. Statement variable profiles for males and females for photograph seven

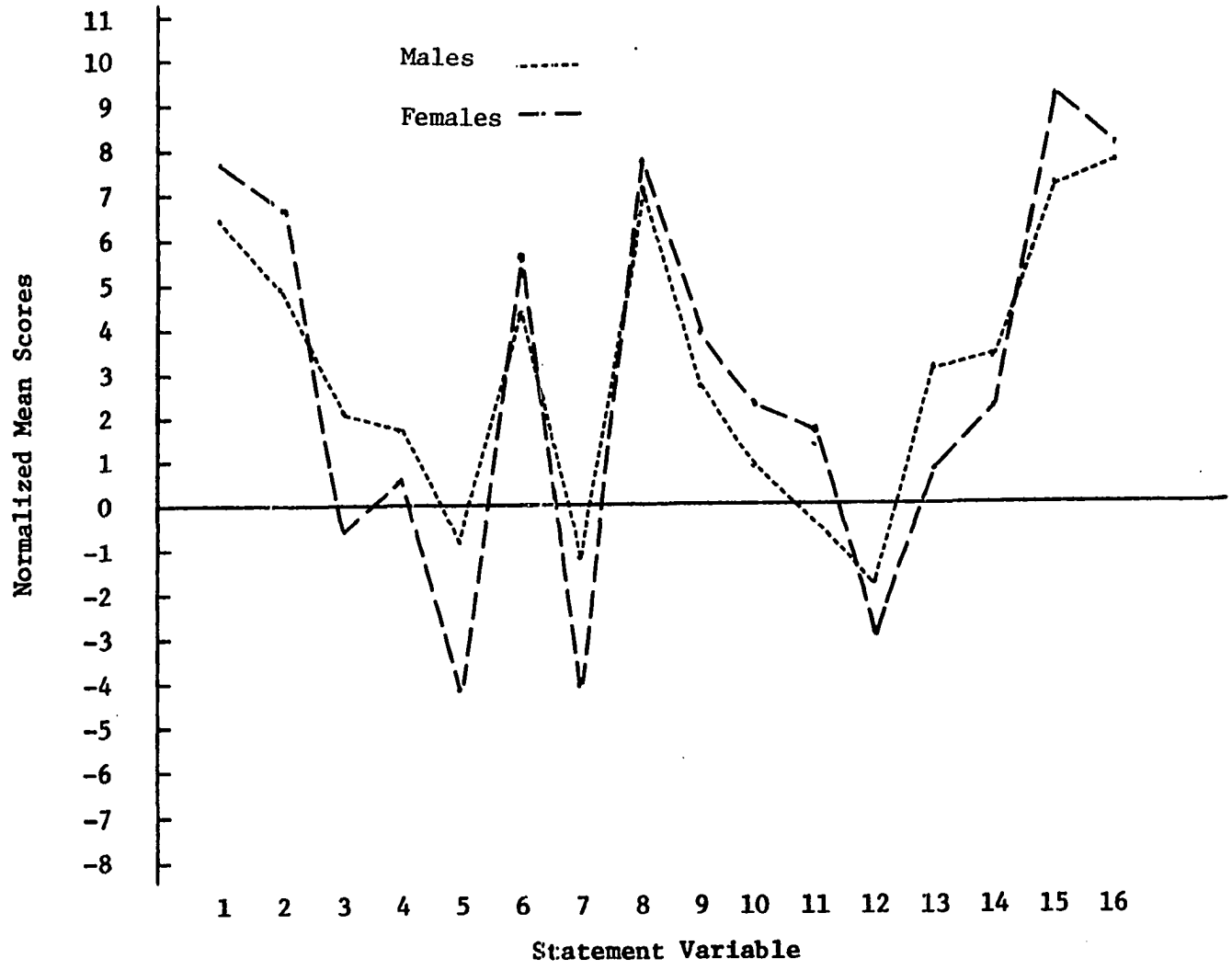


Figure 26. Statement variable profiles for males and females for photograph eight

a strong and consistent pattern. The male respondents tended to rate the photograph more moderately than the female respondents. The variables of punishment and self-centeredness were rated lower by the female respondents.

Figure 27 shows an extremely strong and consistent pattern for photograph nine. The males tended to rate most of the variables lower than the female respondents.

Figure 28 shows a very consistent and strong pattern for photograph ten. The male respondents tended to rate the photograph lower than the female respondents. The variables of competency, warmth, enthusiasm, and confidence were rated higher by the female respondents.

Statement variable ego state profiles

This section presents the photographs grouped by ego states. The Parent ego state is represented by photographs three, four, six, and nine. The Adult ego state is represented by photographs two and eight. The Child ego state is represented by photographs one, five, seven, and ten. There is an ego state profile for each of the statement variables for both male and female respondents. High scores indicate a favorable or positive reaction and low scores indicate a negative or unfavorable reaction.

Figure 29 shows the profile for the variable of communicates effectively. Photograph eight received the highest

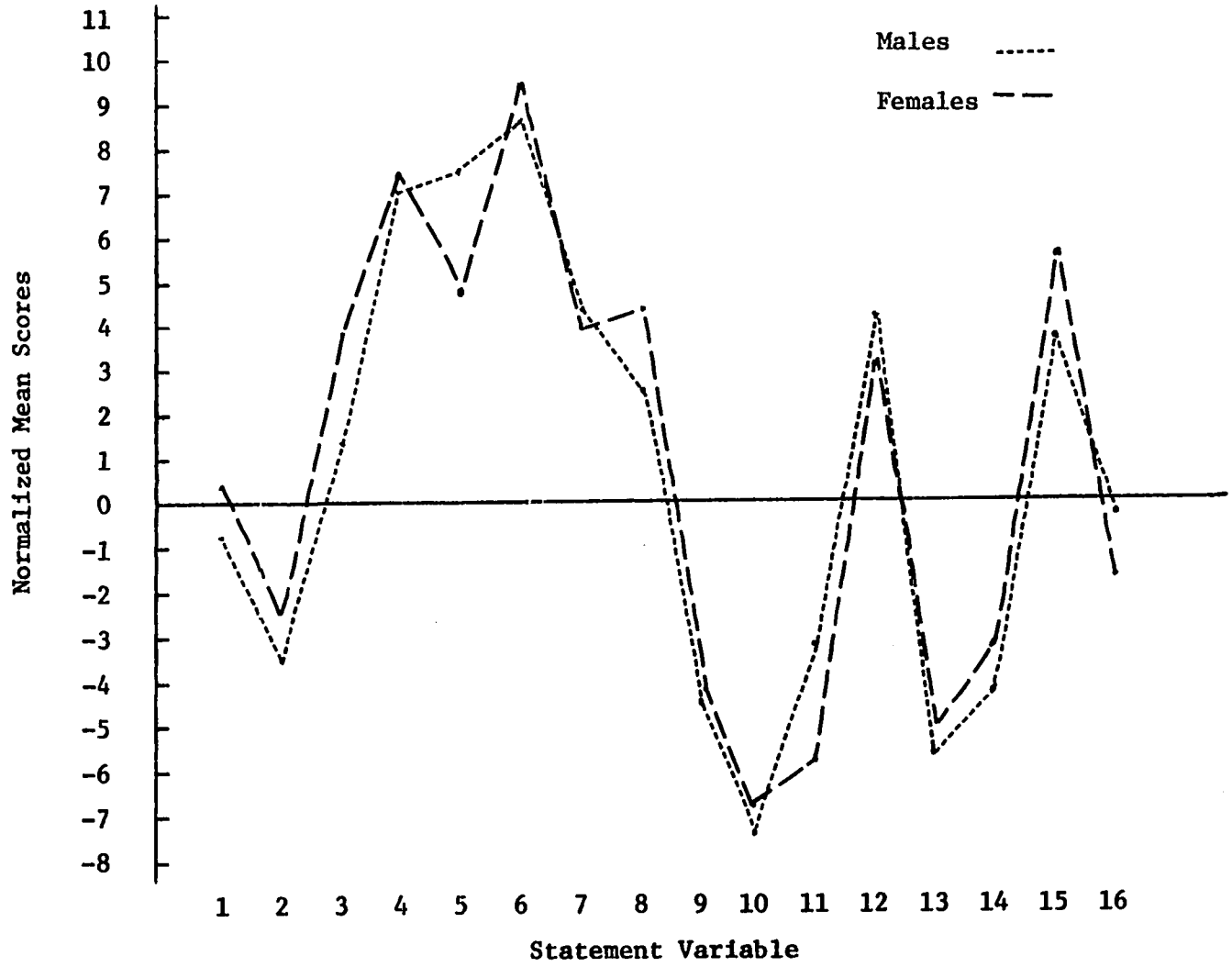


Figure 27. Statement variable profiles for males and females for photograph nine

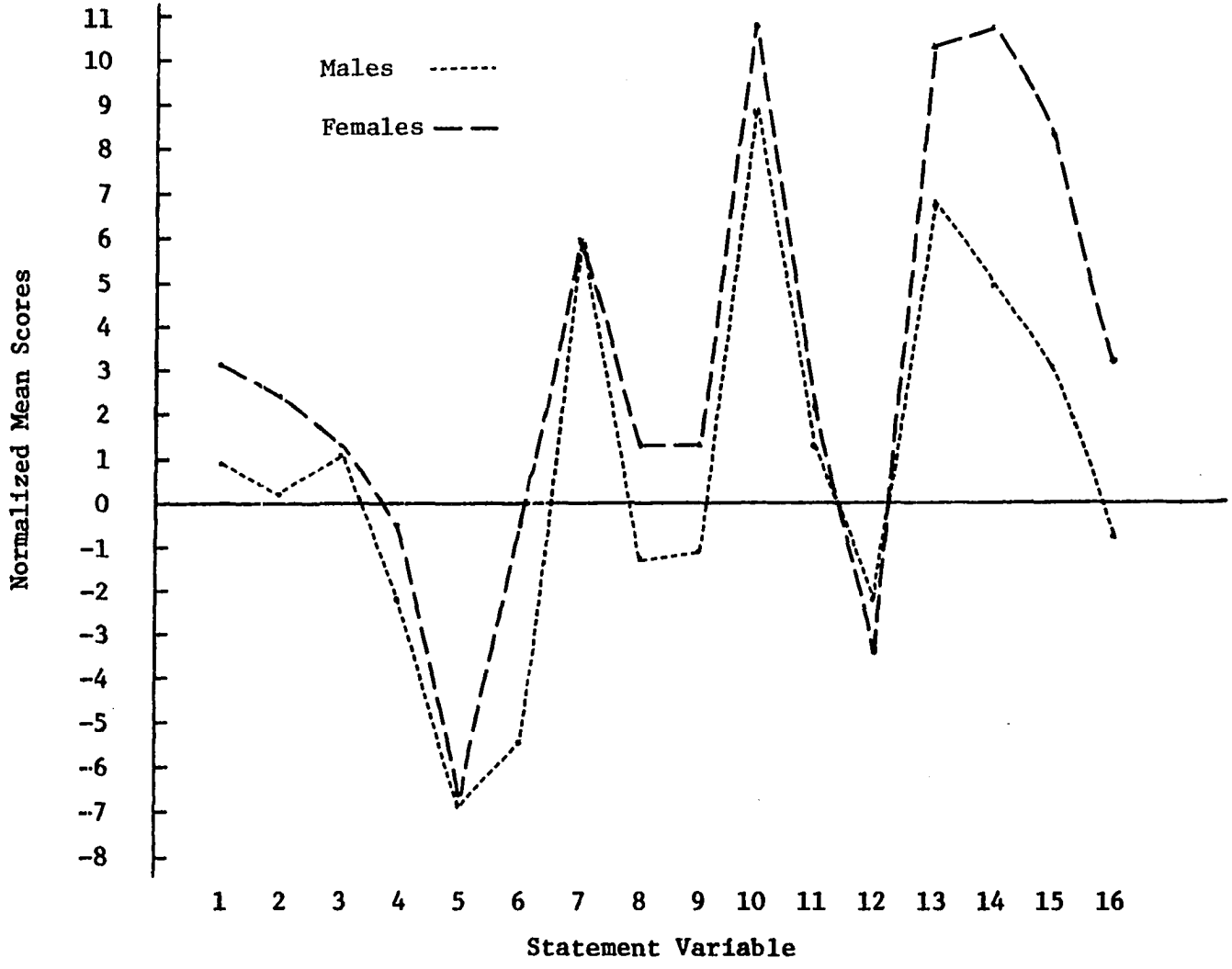
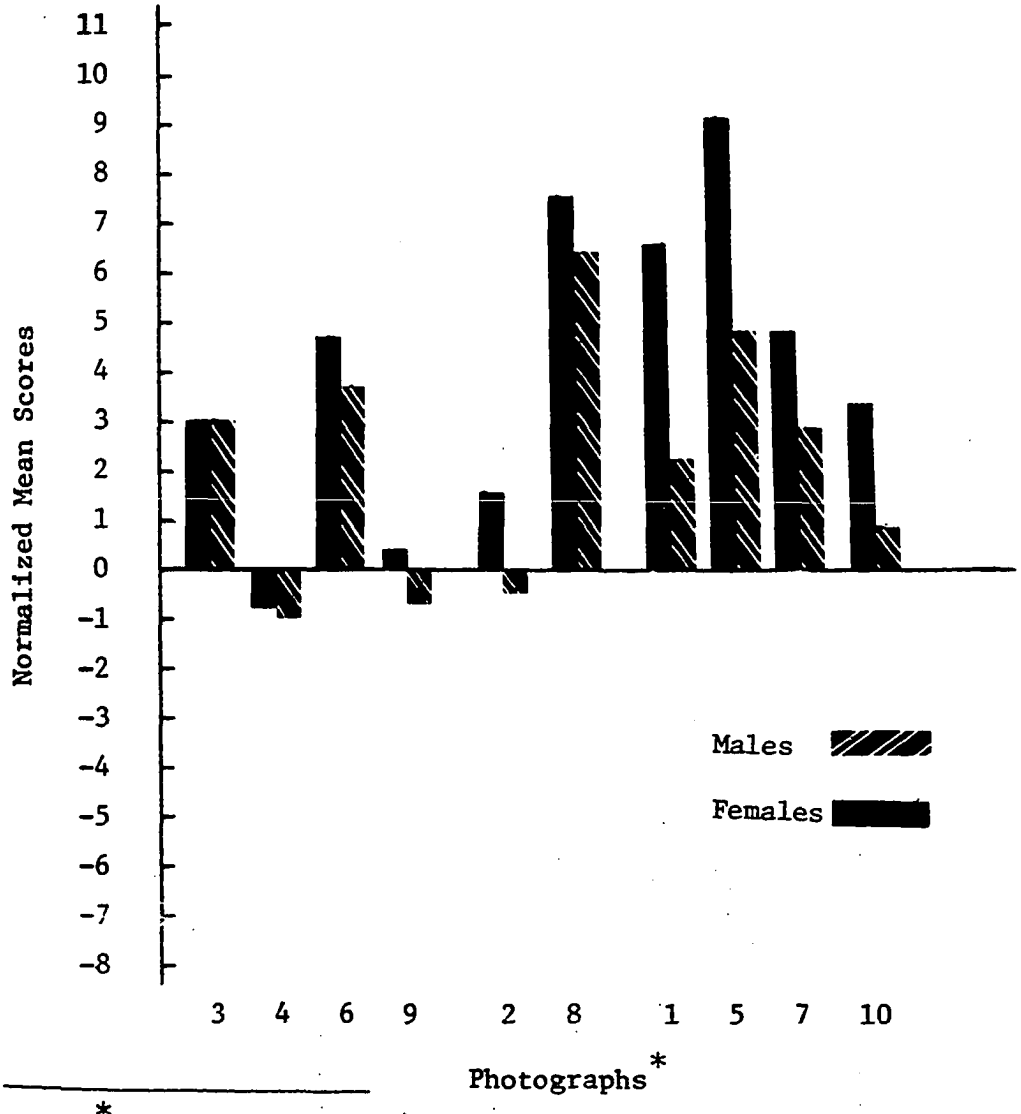


Figure 28. Statement variable profiles for males and females for photograph ten



*Photographs 3, 4, 6 and 9 represent the Parent ego state. Photographs 2 and 8 represent the Adult ego state. Photographs 1, 5, 7, and 10 represent the Child ego state. The photograph coding indicated is identical for all profiles.

Figure 29. Profile of the Parent, Adult and Child ego states for the statement variable of communicates effectively

rating from the male respondents and the males were more consistent in their ratings of the child ego state than they were in their ratings of the Parent ego state. The female respondents rated photograph five the highest and photograph eight the second highest. The Child ego state was rated much higher by the female respondents than by the male respondents.

Figure 30 shows the profile for the variable of encouragement. The males rated photograph eight the highest while the females rated photograph five the highest. The Child ego state was rated fairly consistent and positive. Female respondents tended to rate the positive photographs higher than the male respondents.

Figure 31 shows that the Parent and Child ego states were rated about equally with the highest score given to the Parent ego state. All of the photographs except number two received positive ratings for the variable of manipulation. Females tended to rate the photographs lower than the male respondents.

Figure 32 shows the profile for the variable of domination. The Parent ego state received the most favorable ratings. The ratings were about equal for the male and female respondents.

Figure 33 shows a strong negative rating for the Child ego state and a moderately positive rating for the Parent

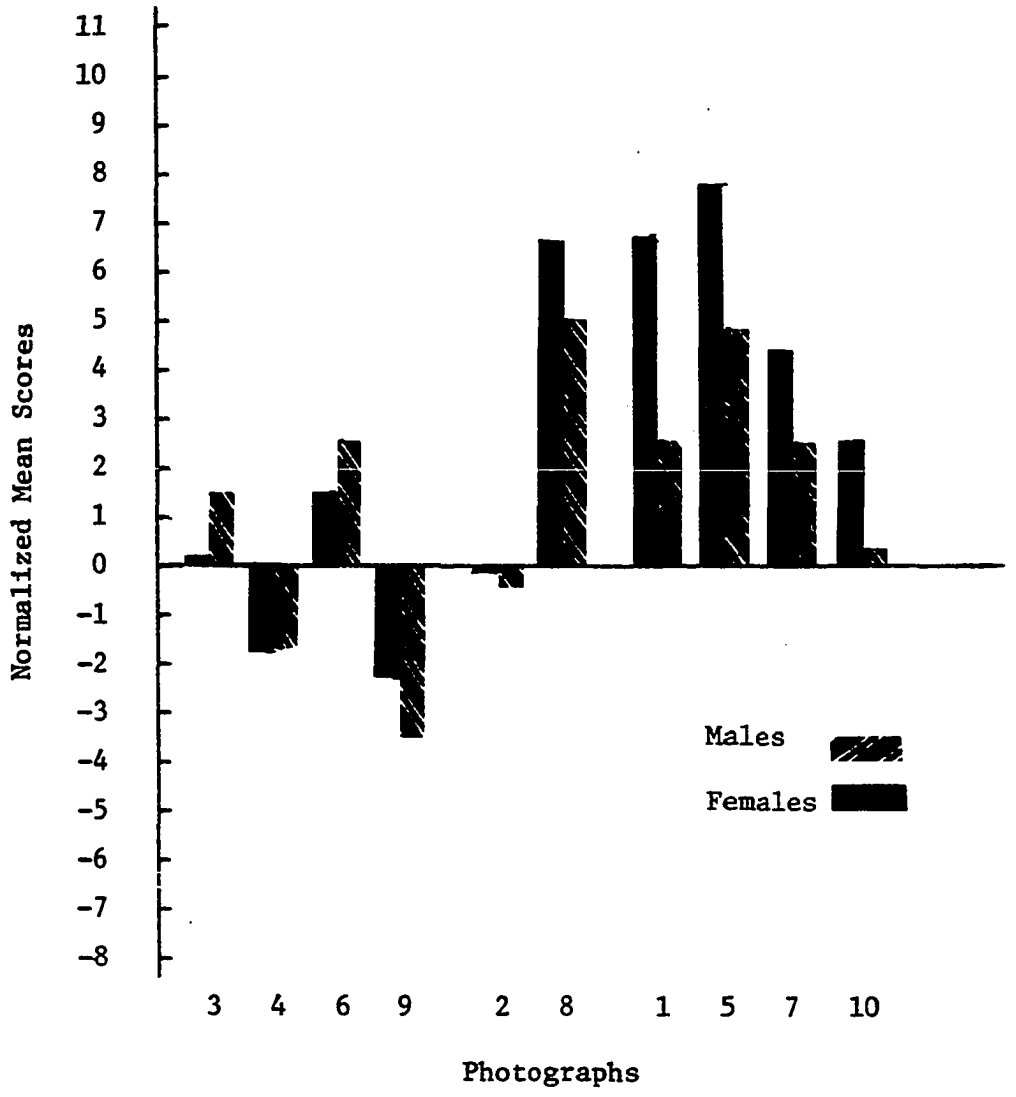


Figure 30. Profile of the Parent, Adult and Child ego states for the statement variable of encouragement

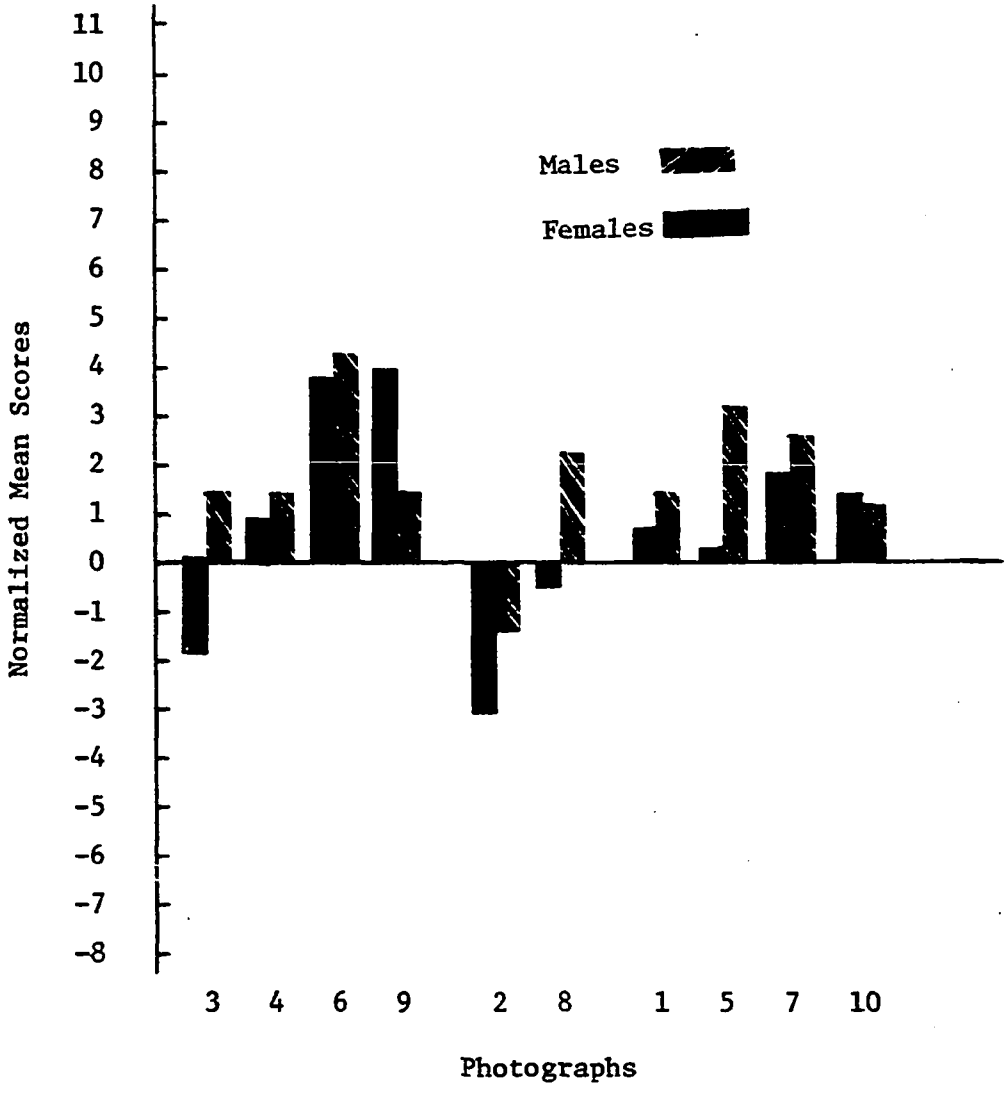


Figure 31. Profile of the Parent, Adult and Child ego states for the statement variable of manipulation

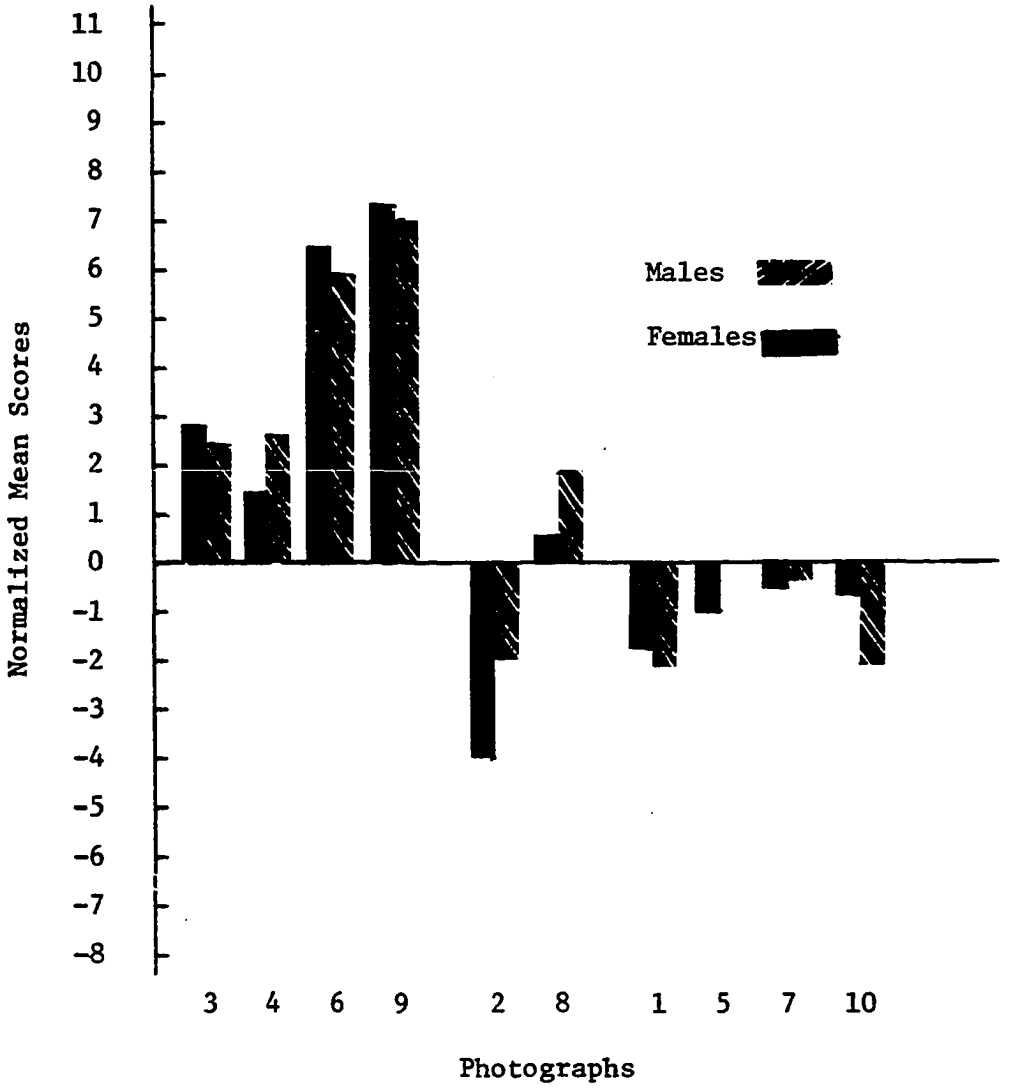


Figure 32. Profile of the Parent, Adult and Child ego states for the statement variable of domination

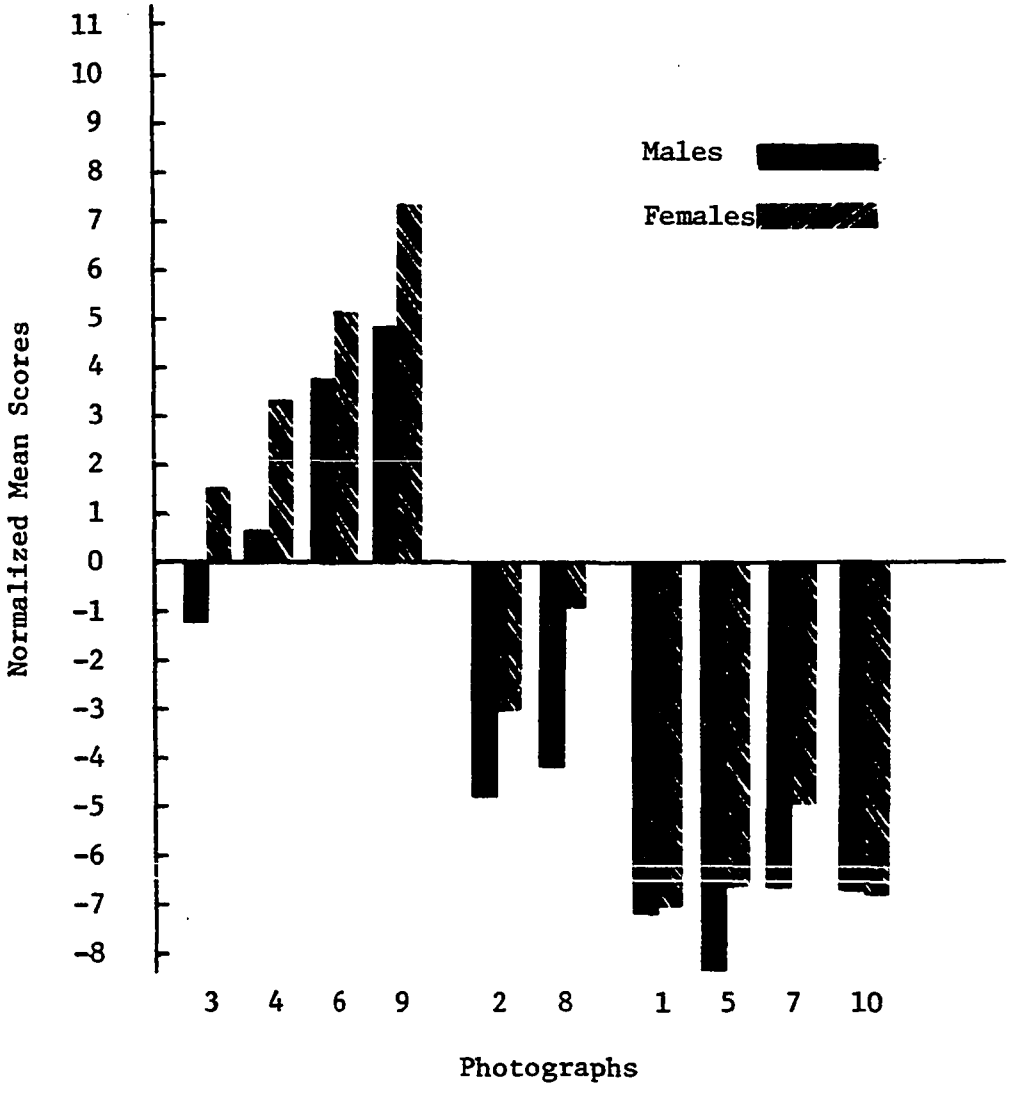


Figure 33. Profile of the Parent, Adult and Child ego states for the statement variable of punishment

ego state for the variable of punishment. The Adult ego state was also rated negatively. The female respondents tended to rate all the photographs lower than the male respondents.

Figure 34 shows that the respondents rated the Parent ego state very positive for the variable of demanding performance. The males rated the Child ego state photographs more unfavorably than the female respondents. The Adult ego state was perceived positively by the male respondents.

Figure 35 shows the profile for the variable of self-centered. The Child ego state was rated slightly more favorably than the Parent ego state. The male respondents tended to rate the photographs higher than the female respondents. The Adult ego state was rated negatively by both the males and females.

Figure 36 shows the profile for the variable of competency. The Adult and Parent ego state received positive ratings while the Child ego state was rated very close to neutral. The female respondents rated photographs one and five much more favorably than the male respondents.

Figure 37 shows the profile for the variable of sympathy. The Adult ego state was rated positively and the Parent ego state was rated negatively. The Child ego state was rated neutral except for the female rating of photograph one.

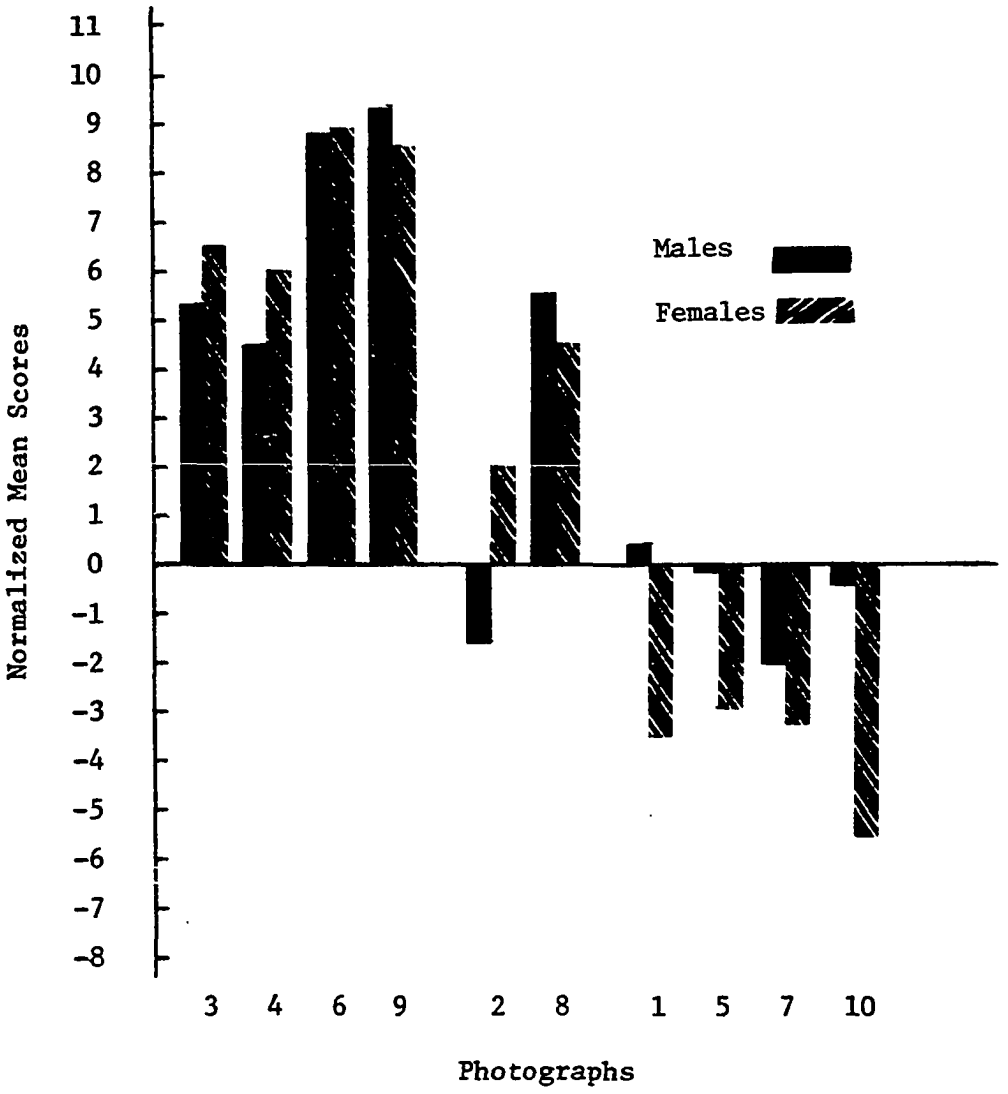


Figure 34. Profile for the Parent, Adult and Child ego states for the statement variable of demanding performance

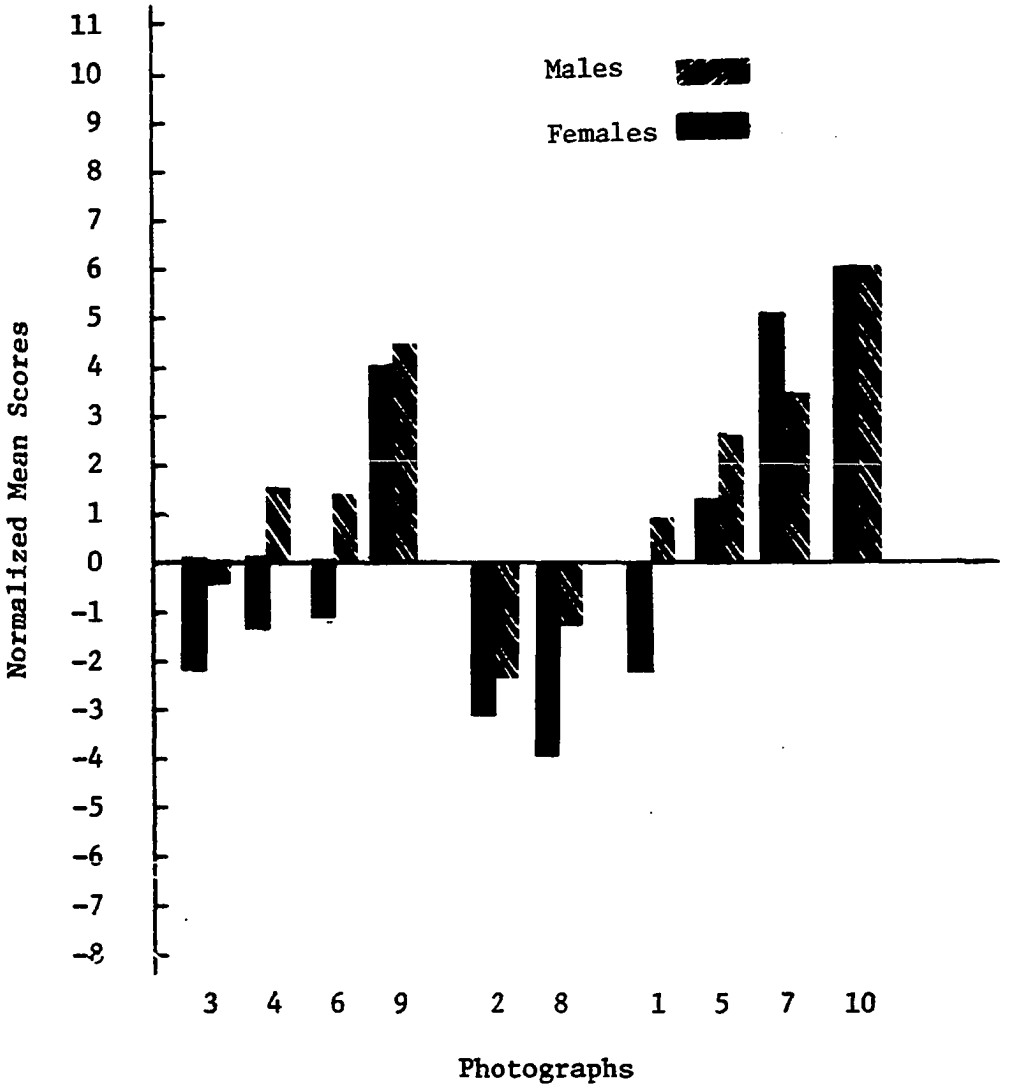


Figure 35. Profile of the Parent, Adult and Child ego states for the statement variable of self-centered

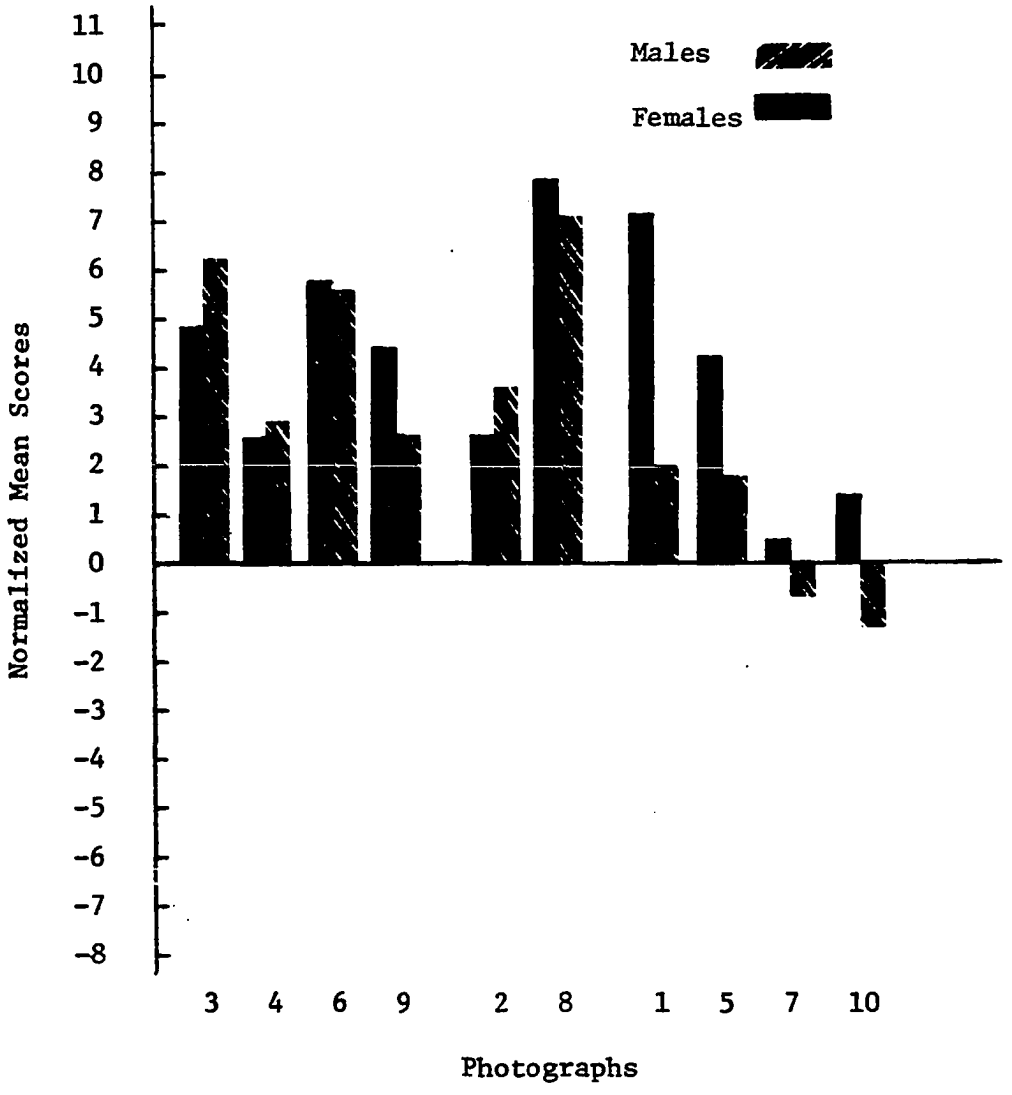


Figure 36. Profile of the Parent, Adult and Child ego states for the statement variable of competent

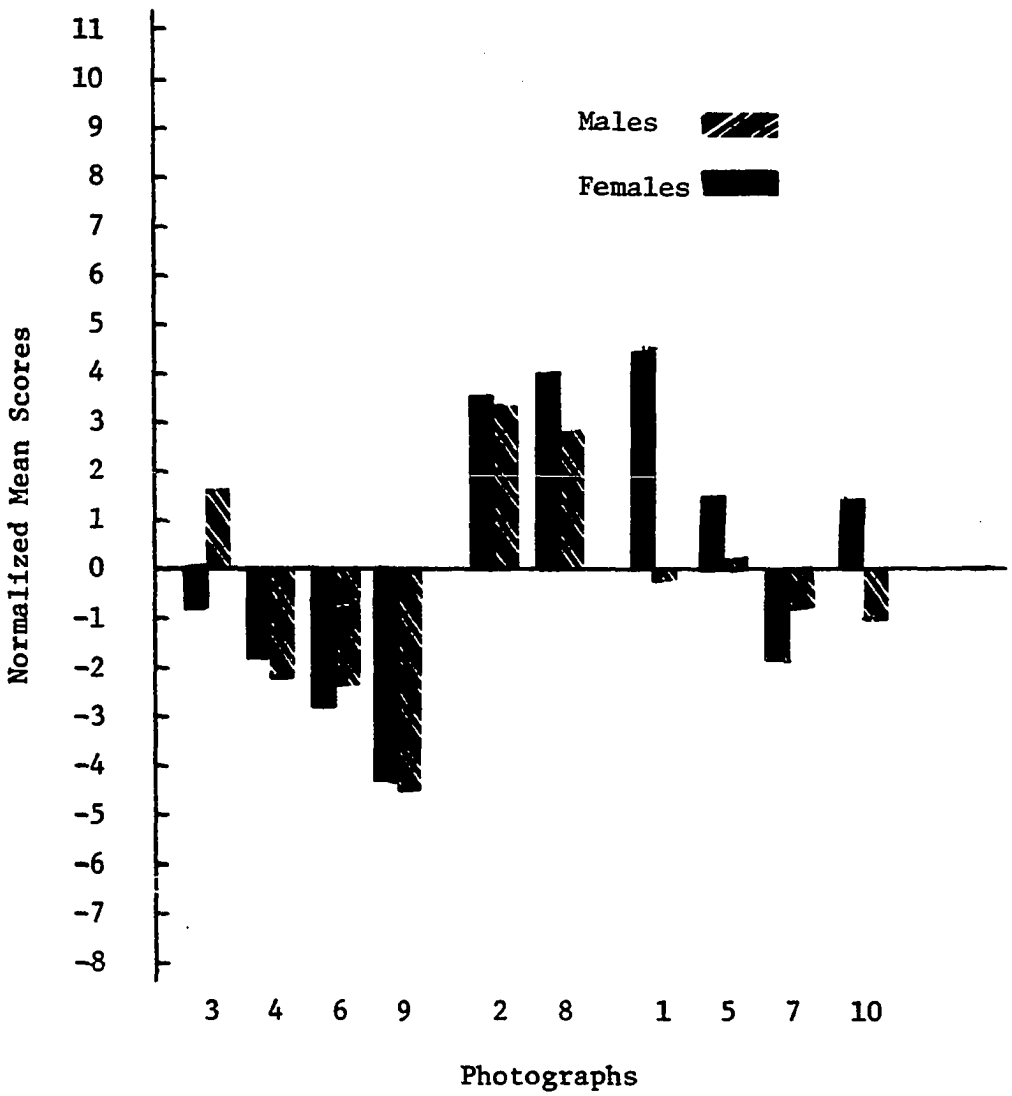


Figure 37. Profile of the Parent, Adult and Child ego states for the statement variable of sympathetic

Figure 38 shows a very definite profile for the variable of fun. The Child ego state was rated very highly positive and the Parent ego state was rated negatively. The Adult ego state was split with photograph two receiving a negative rating and photograph eight a positive rating. The male and female respondents rated the photographs about equal.

Figure 39 shows a fairly neutral pattern for the variable of compliant. The Child and Adult ego states received slightly favorable ratings. The Parent ego state was rated unfavorably with the female respondent rating more negatively than the male respondents.

Figure 40 shows a profile for the variable of prejudice. The Parent ego state received positive ratings, the Adult and Child ego states received negative ratings. The male and female respondents rated the photographs about equally. The female respondents were slightly lower in their ratings for all of the photographs.

Figure 41 shows a very definite profile for the variable of warmth. The Child ego state received the highest ratings with the female respondents rating the photographs higher than the male respondents. The Adult ego state was rated only slightly positive. The Parent ego state was rated negatively.

Figure 42 shows the profile for the variable of

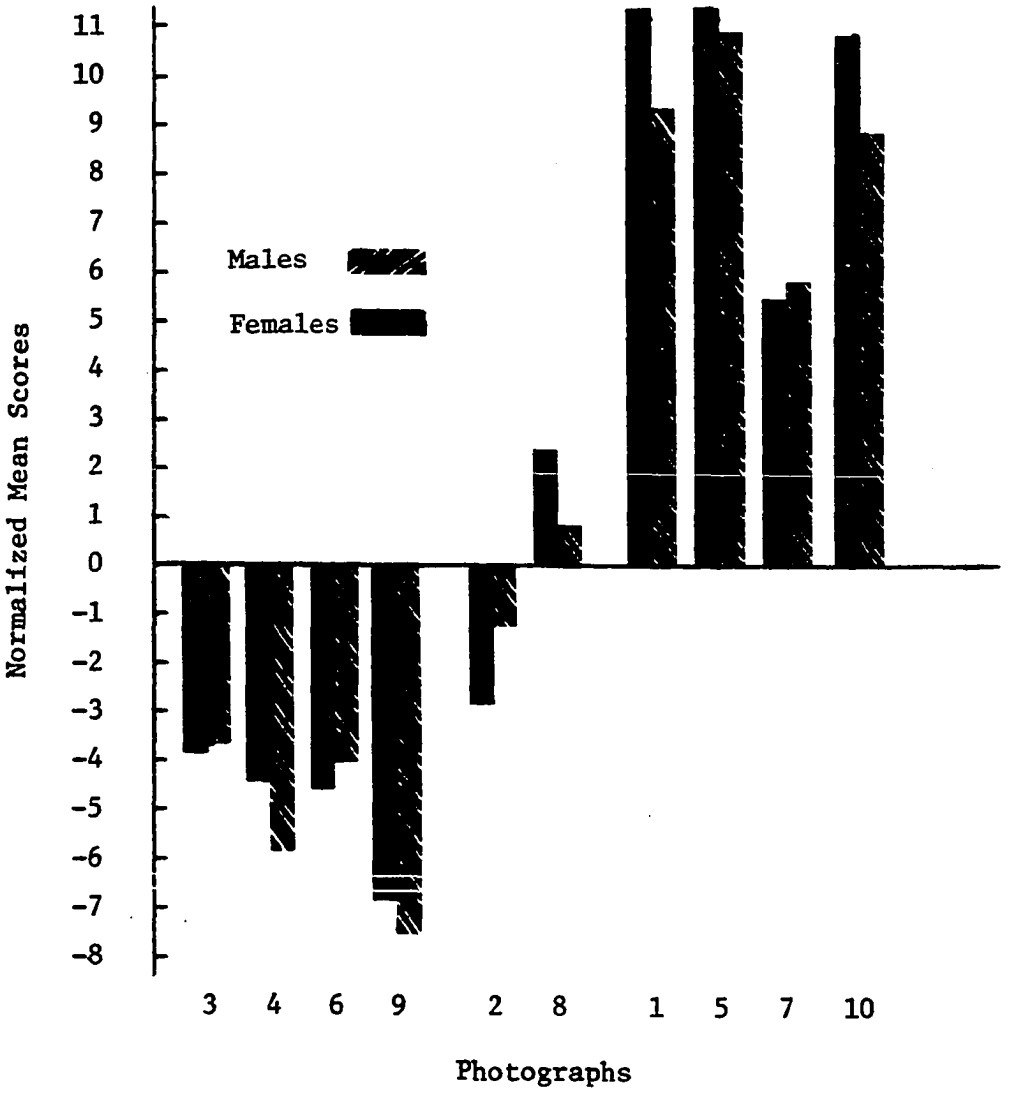


Figure 38. Profile of the Parent, Adult and Child ego states for the statement variable of fun

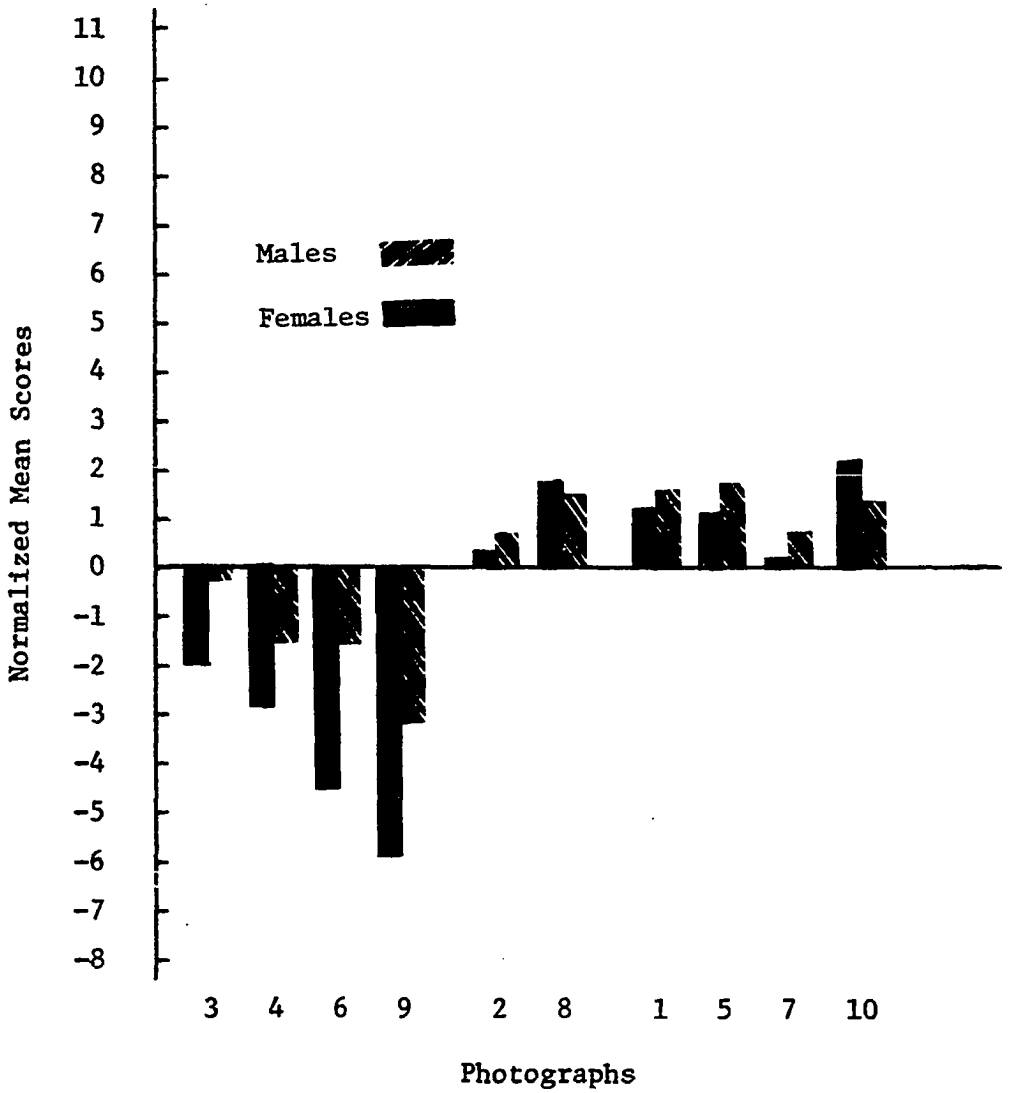


Figure 39. Profile of the Parent, Adult and Child ego states for the statement variable of compliant

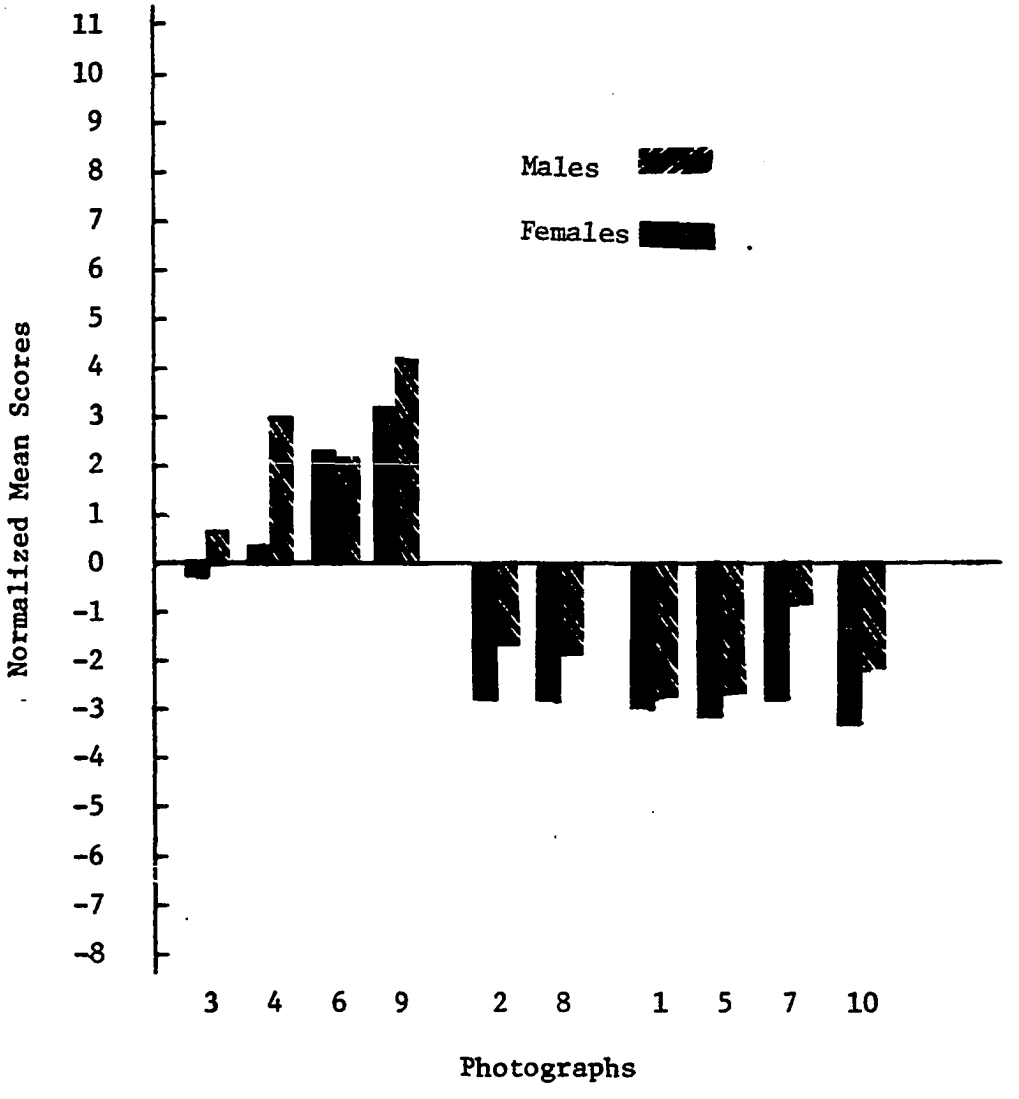


Figure 40. Profile of the Parent, Adult and Child ego states for the statement variable of prejudice

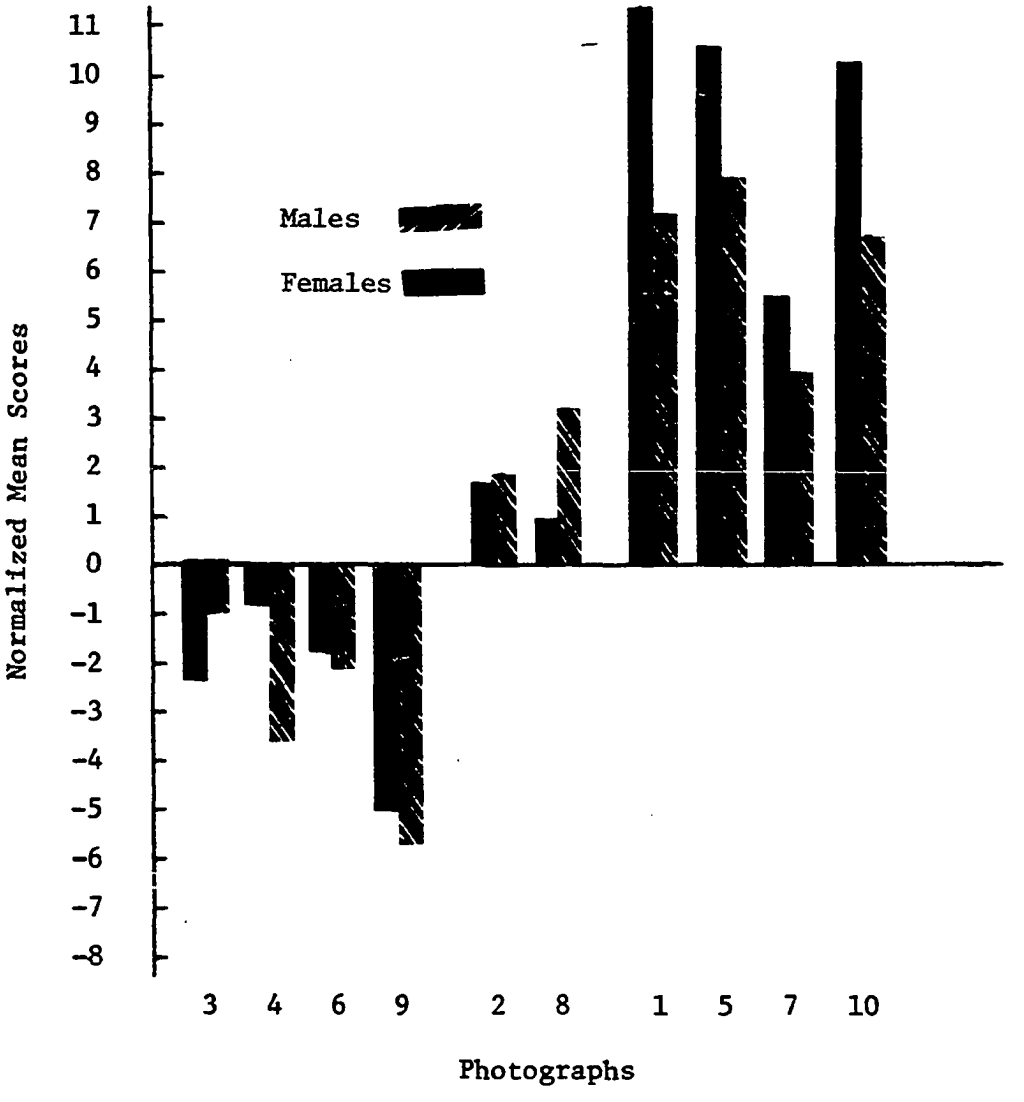


Figure 41. Profile of the Parent, Adult and Child ego states for the statement variable of warmth

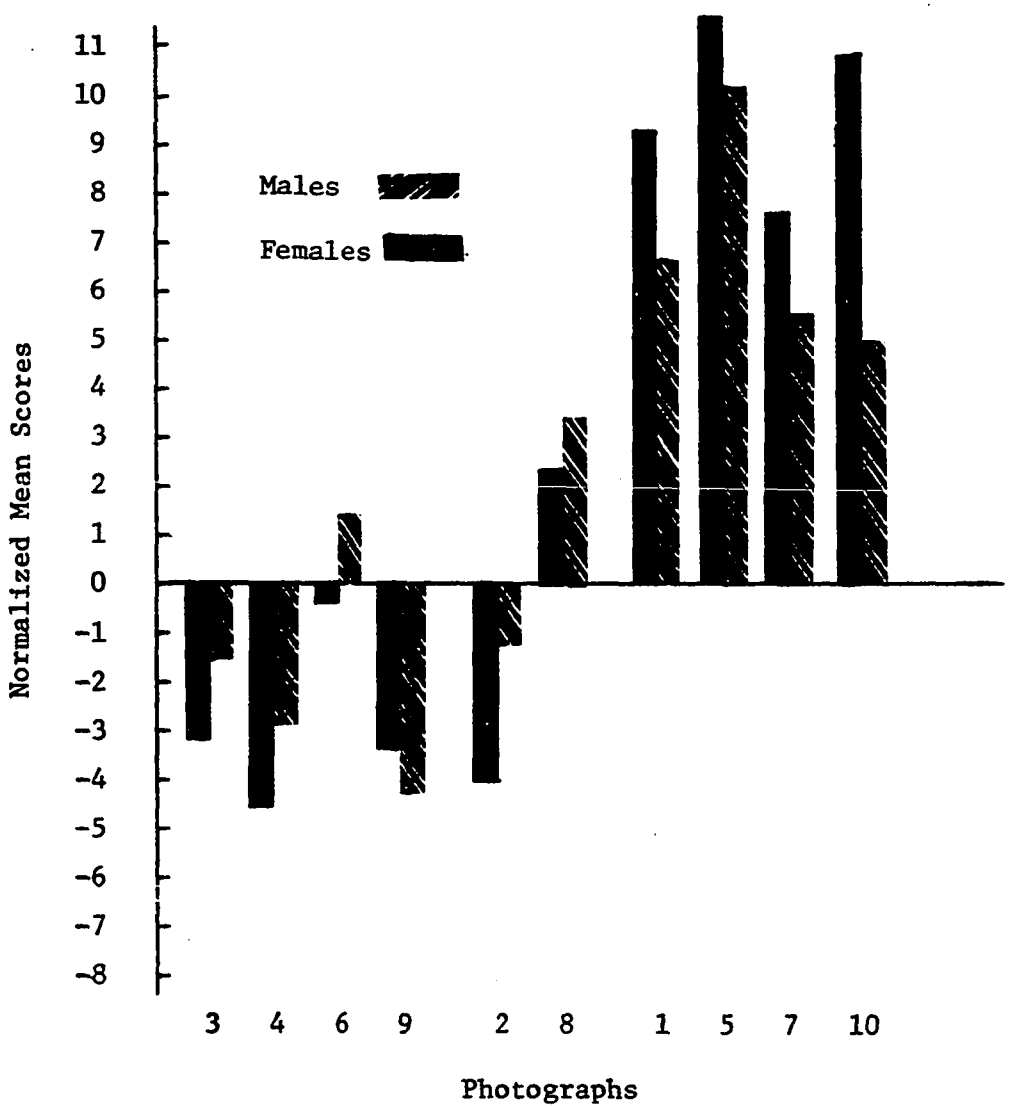


Figure 42. Profile of the Parent, Adult and Child ego states for the statement variable of enthusiasm

enthusiasm. The Child ego state received the most favorable ratings. The Parent ego state received unfavorable ratings. The Adult ego state was divided with photograph two receiving unfavorable ratings and photograph eight receiving favorable ratings. The female respondents tended to rate the positive ratings higher and the negative ratings lower than the male respondents.

Figure 43 shows a very positive profile for the variable of confidence. All three ego states received positive ratings. The female respondents rated the Child ego state and photograph eight more positively than the male respondents.

Figure 44 shows the profile of the variable of learning. The Adult ego state was rated the highest. Photographs three and six of the Parent ego state received high ratings and photographs one and five of the Child ego state also received high ratings. The male and female respondents rated the photographs about equally except for photograph five and ten which were rated higher by the female respondents. The favorably rated photographs were eight, two, three, six, one, and five. The male respondents rated the photographs in the following order; eight, six, three, one, two, and five. The female respondents rated the photographs in the following order; eight, five, one, six, three, ten, and two.

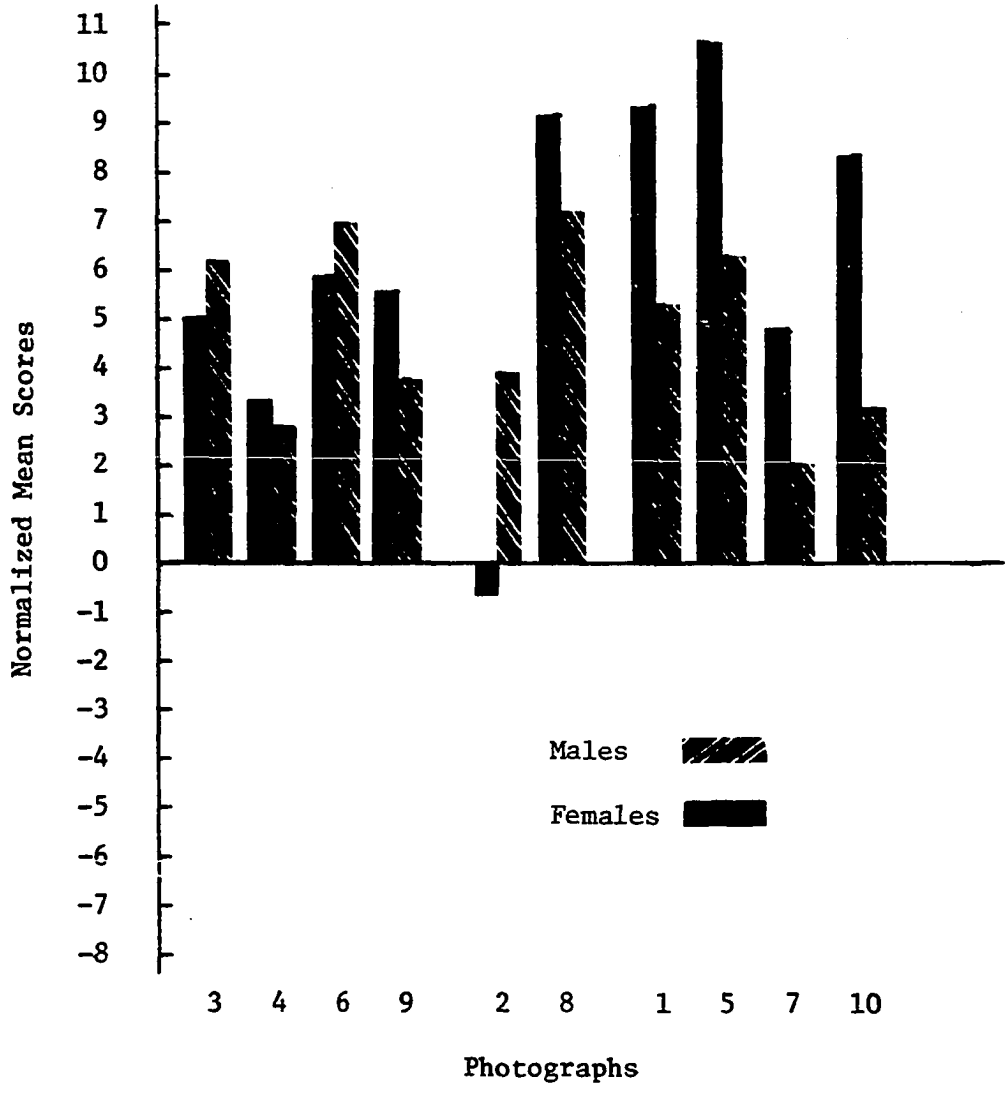


Figure 43. Profile of the Parent, Adult and Child ego states for the statement variable of confident

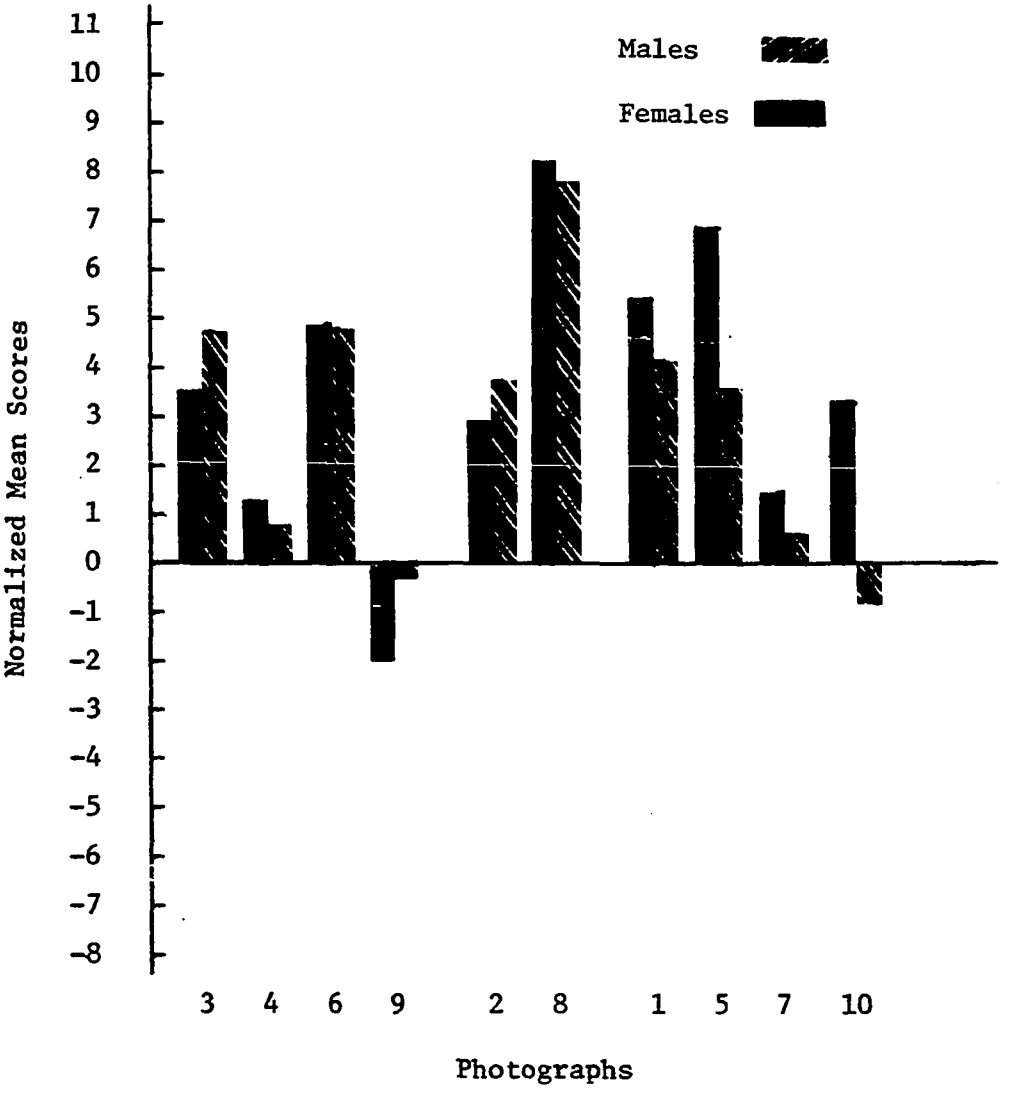


Figure 44. Profile of the Parent, Adult and Child ego states for the statement variable of learning

A visual comparison of the profiles for the variable statements indicated that several of the variables had similar patterns. The Parent ego state pattern occurred for the variables of demanding performance, punishment, prejudice, manipulation, and domination. The rating differences were attributed to the Adult ego state. The Adult ego state was rated positively for the variable of demanding performance and negatively for the variable of prejudice. The Adult ego state was divided for the variables of manipulation and domination with photograph two rated negatively and photograph eight rated positively. The variable of self-centered was unique in that both the Parent and Child ego states received positive ratings and the Adult ego state was rated negatively.

The Child ego state was highly rated for the variables of fun, enthusiasm, warmth, and compliancy. The rating differences occurred in the Adult ego state. A slightly positive rating was given to the Adult ego state for the variables of warmth and compliancy. The Adult ego state was split for the variables of enthusiasm and fun with photograph two receiving negative ratings and photograph eight receiving positive ratings.

The variable of sympathy was rated differently with the Adult ego state rated positively and the Parent and Child ego states rated negatively.

The variables of communicates effectively, encouragement, competent, and confidence had profiles that were very similar to the profile for learning. There were only minor differences in the strengths of the ratings of the photographs.

Educational Level

The educational level data is presented in two parts. The first part reports on the rating patterns of each educational level for each of the ten photographs. The patterns were evaluated in the same manner as the patterns for the male and female respondents. The second part presents the ego state profiles for each educational level for each of the statement variables.

Photograph comparison patterns for educational level

There was a great deal of similarity in the ratings of the photographs by the different educational levels.

Educational level one includes the respondents with a high school diploma or less. Educational level two included the respondents with some college or technical school. The third educational level included college graduates.

Figure 45 indicated that three statement variables were rated somewhat differently for photograph one by the

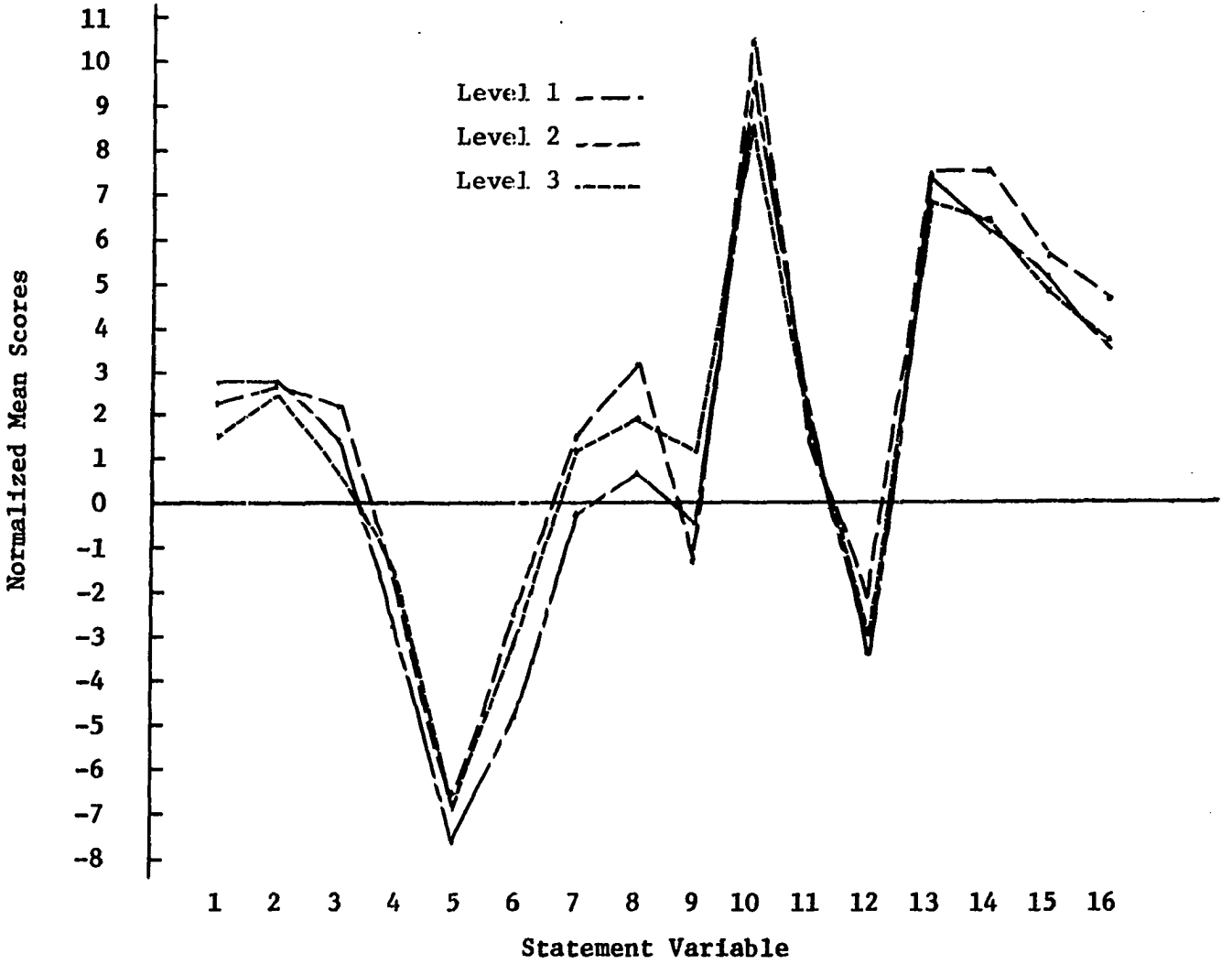


Figure 45. Statement variable profiles by educational level for photograph one

educational levels. The first variable was competency and educational level one rated it the highest and educational level two the lowest. The statement variable of sympathy was rated lowest by educational level one and highest by educational level three. The statement variable of fun was rated just the opposite of sympathy. In general, photograph one was quite consistent in all of the other ratings.

Figure 46 shows that photograph two was rated quite consistently over all of the statement variables except fun. Educational level one rated fun much lower than the other educational levels. It was also noted that there were no significant high or low ratings.

Figure 47 indicates that there were rating differences for three statement variables for photograph three. Both effective communication and manipulation were rated much higher by educational level one than by level three. The statement variable of encouragement was rated the highest by educational level two and the lowest by level three. The other statement variables were rated very near the same by all three educational levels.

Figure 48 shows that educational level two rated photograph four much more positively or negatively than the other two levels. The statement variables of fun and prejudice were rated very differently by educational level one. Fun

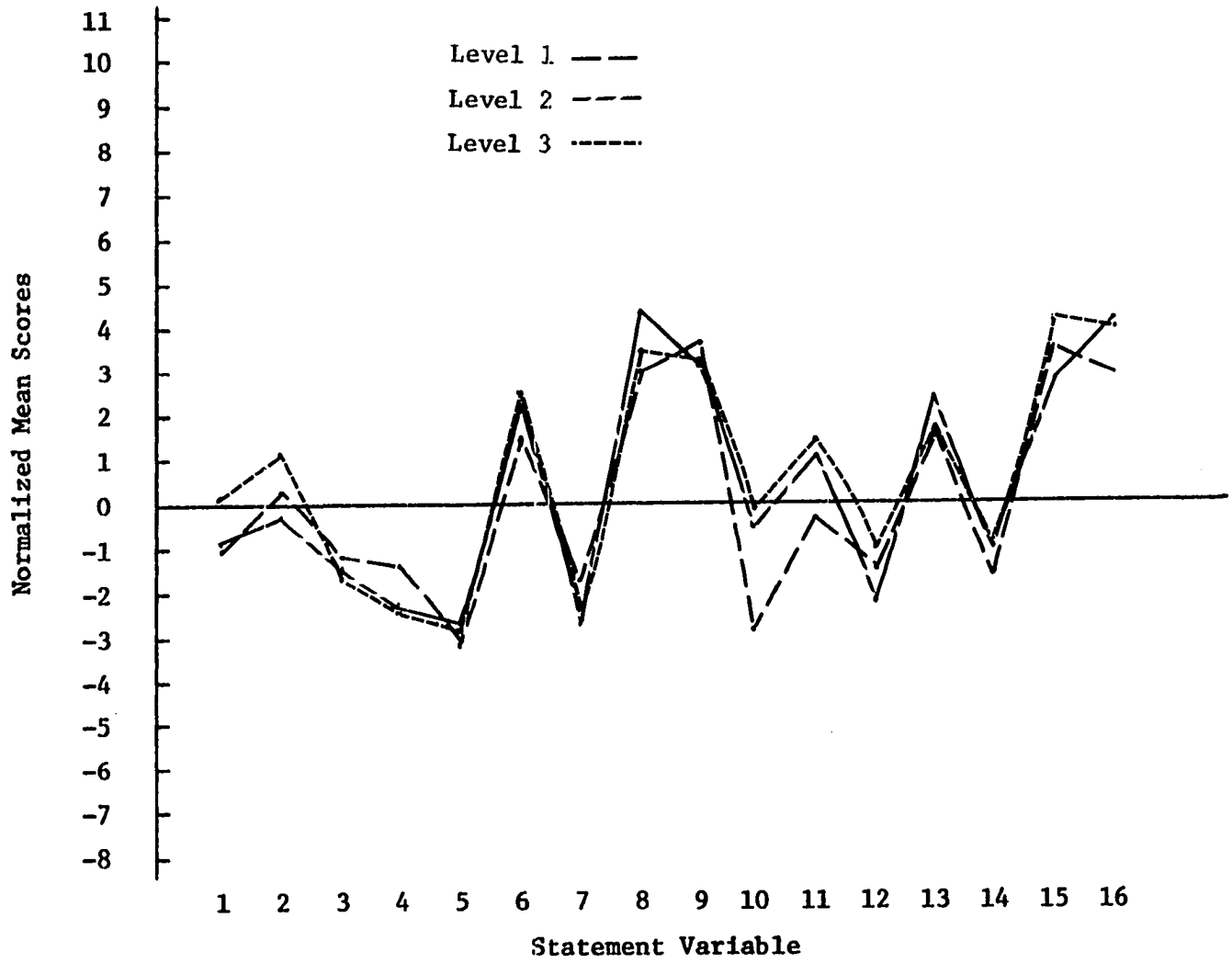


Figure 46. Statement variable profiles by educational level for photograph two

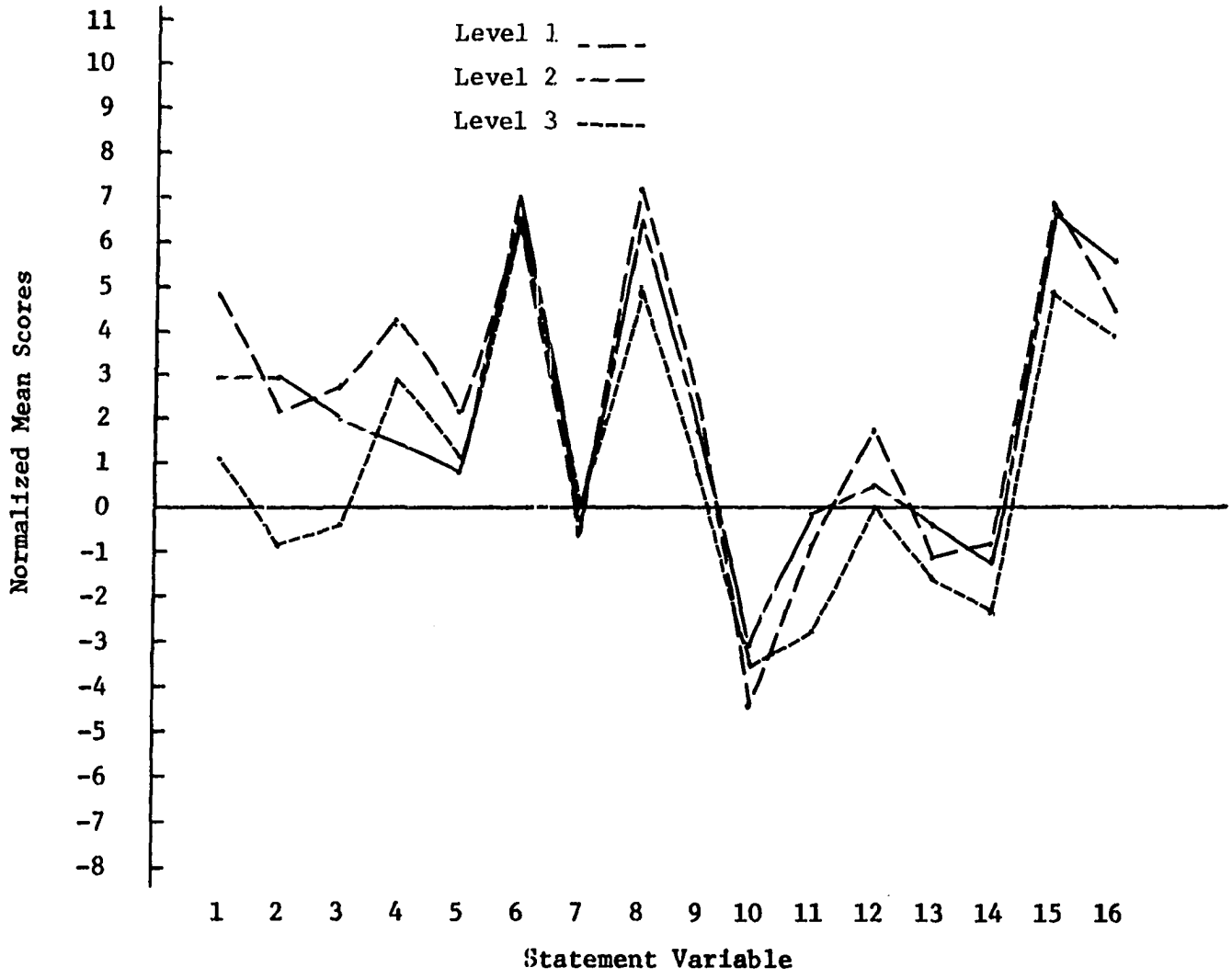


Figure 47. Statement variable profiles by educational level for photograph three

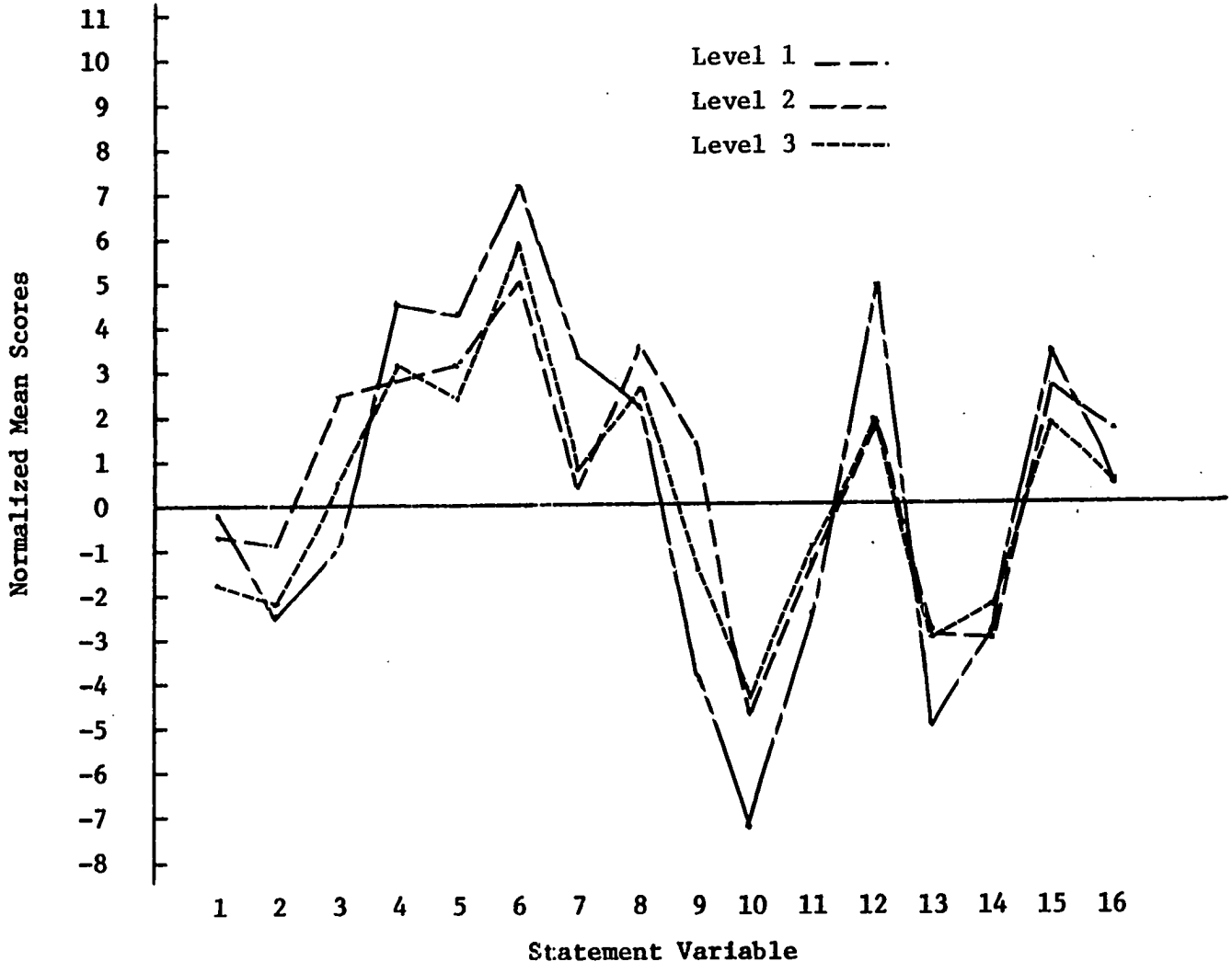


Figure 48. Statement variable profiles by educational level for photograph four

was rated very low and prejudice was rated very high compared to the other levels.

Figure 49 shows a very consistent pattern for photograph five through all of the statement variables except learning where there was a low rating by the respondents with technical education or some college and a high rating by the respondents with high school education or less. All three educational levels reacted with very high or very low ratings for several of the statement variables.

Figure 50 indicates very close agreement on all of the statement variables except punishment for photograph six. Level one rated punishment much higher than did the college graduates.

Figure 51 shows that for photograph seven the statement variable of sympathy was rated much lower by educational level two than by the other levels. All of the other statement variables were rated very consistently.

Figure 52 shows a pattern for photograph eight where the respondents with a high school education or less rated effective communication, encouragement, manipulation, and domination much higher than the college graduates with level two, some college or technical school, splitting the difference. The rest of the statement variable ratings were very close to each other.

Figure 53 indicates that all statement variables for

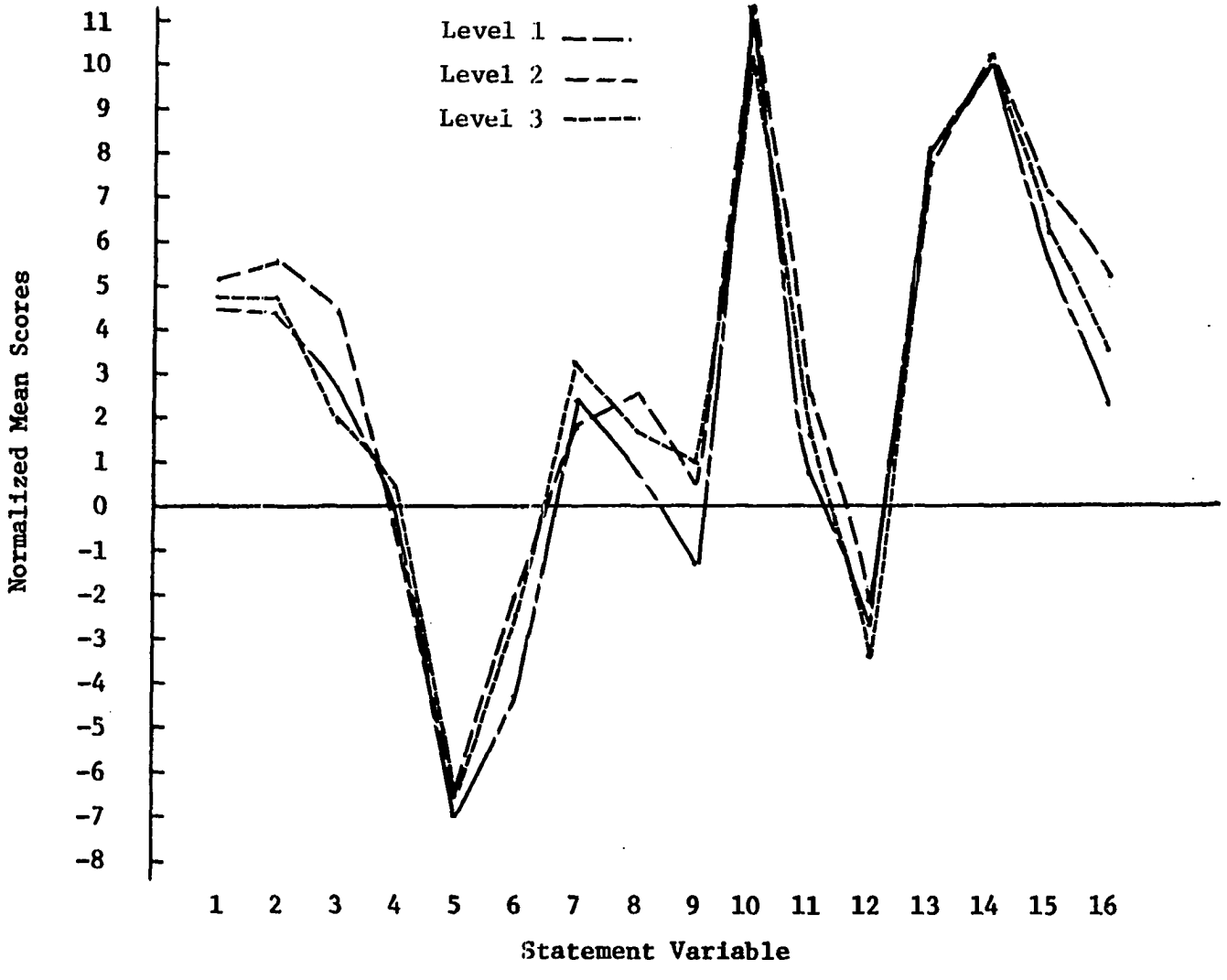


Figure 49. Statement variable profile by educational level for photograph five

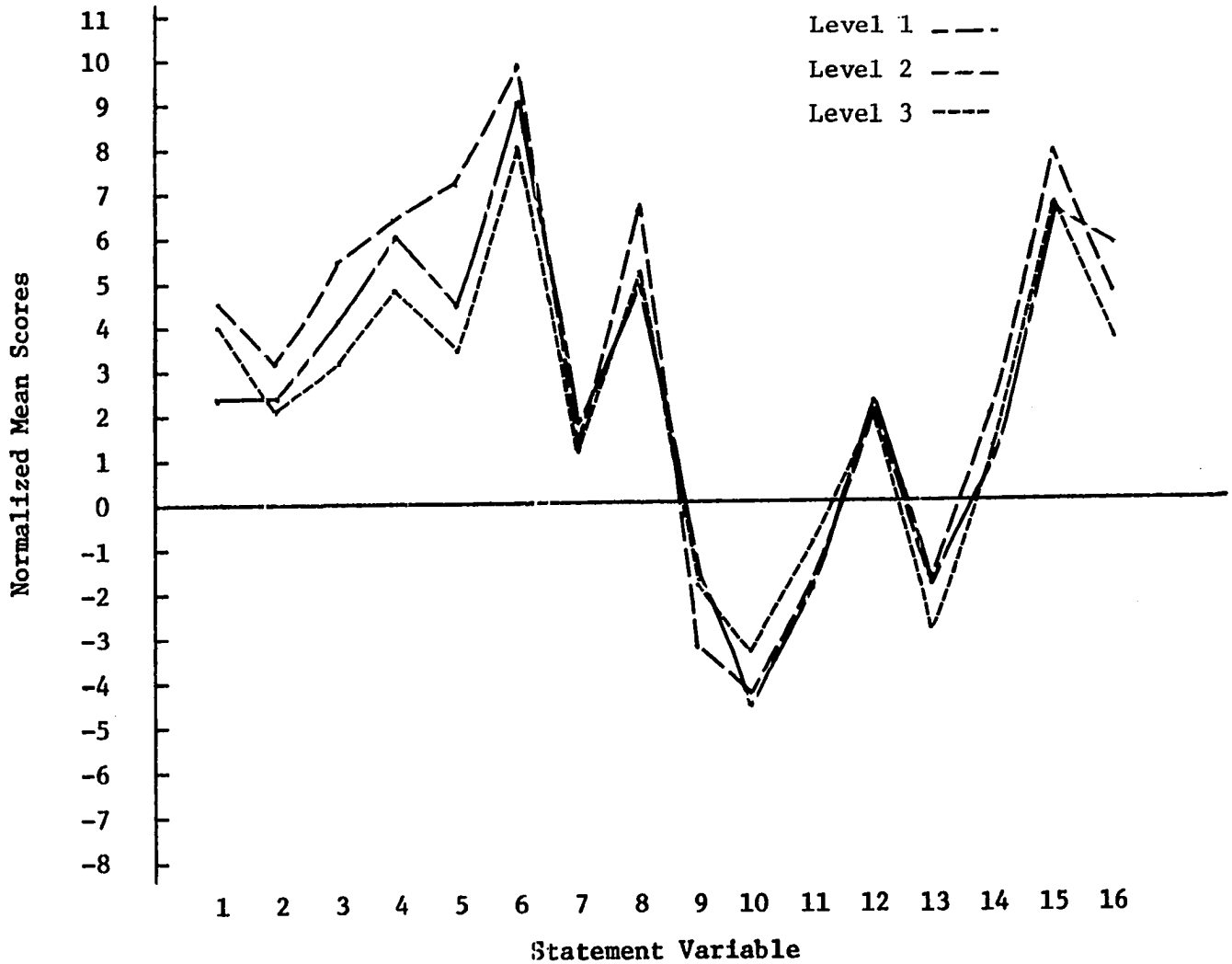


Figure 50. Statement variable profiles by educational level for photograph six

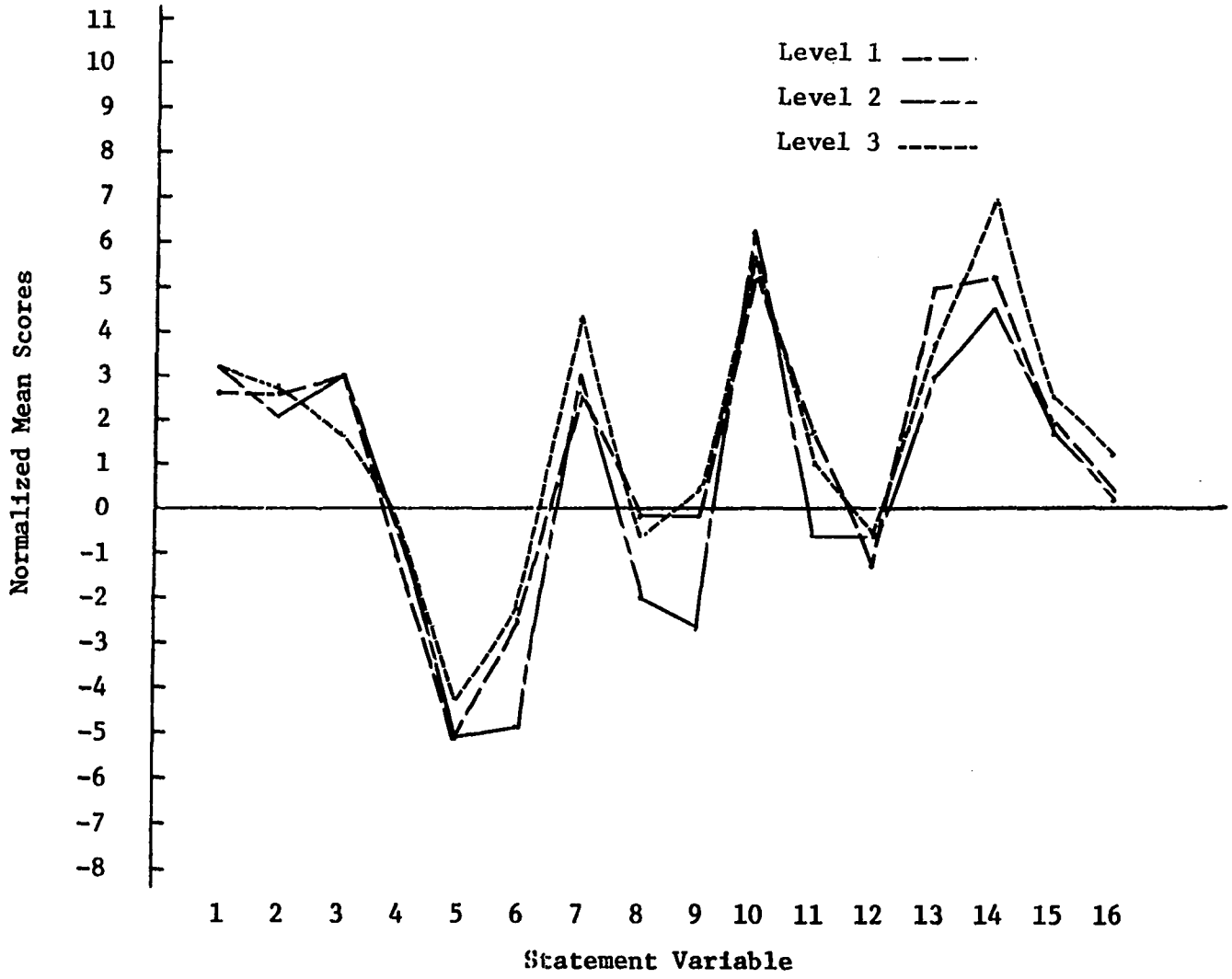


Figure 51. Statement variable profiles by educational level for photograph seven

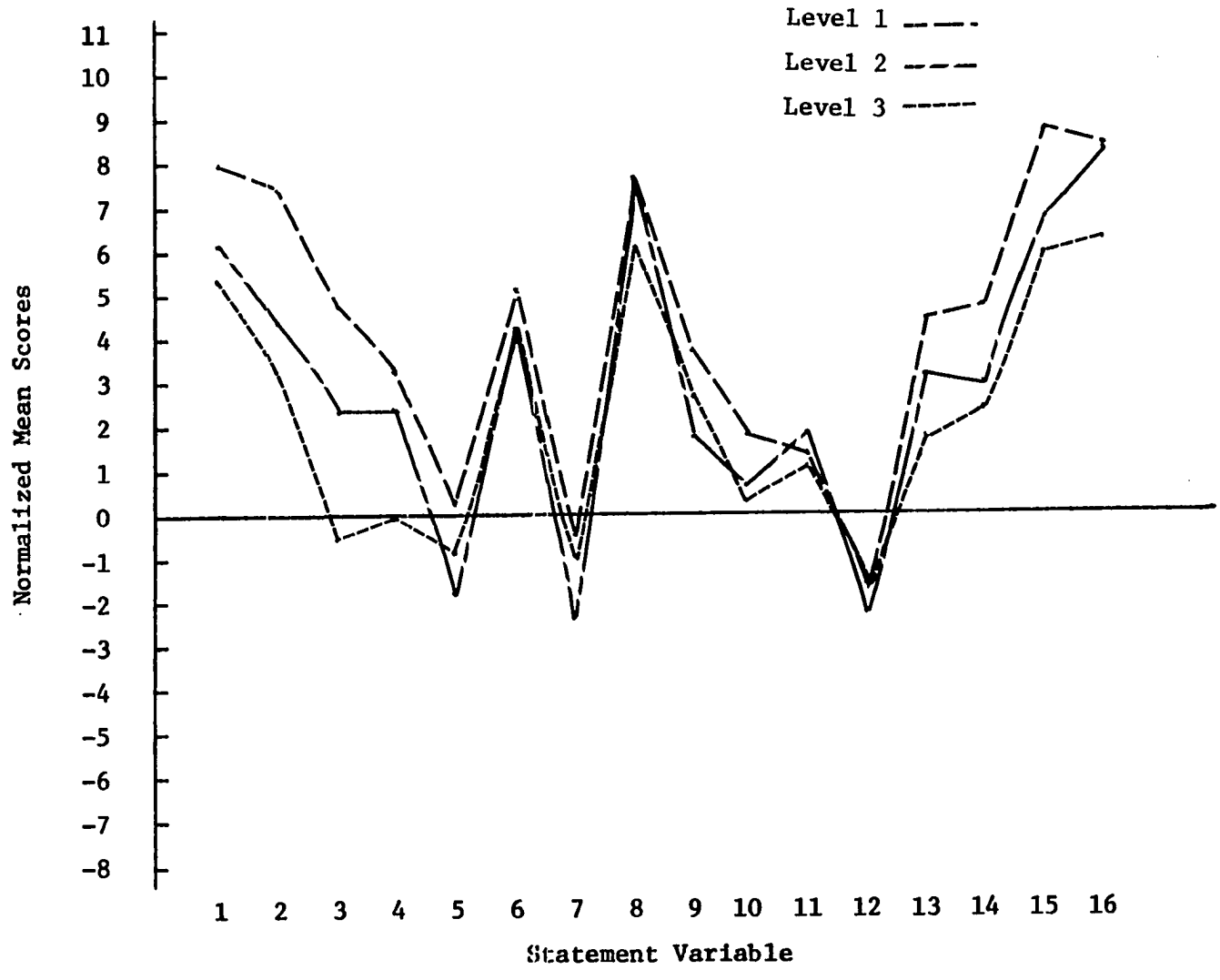


Figure 52. Statement variable profiles by educational level for photograph eight

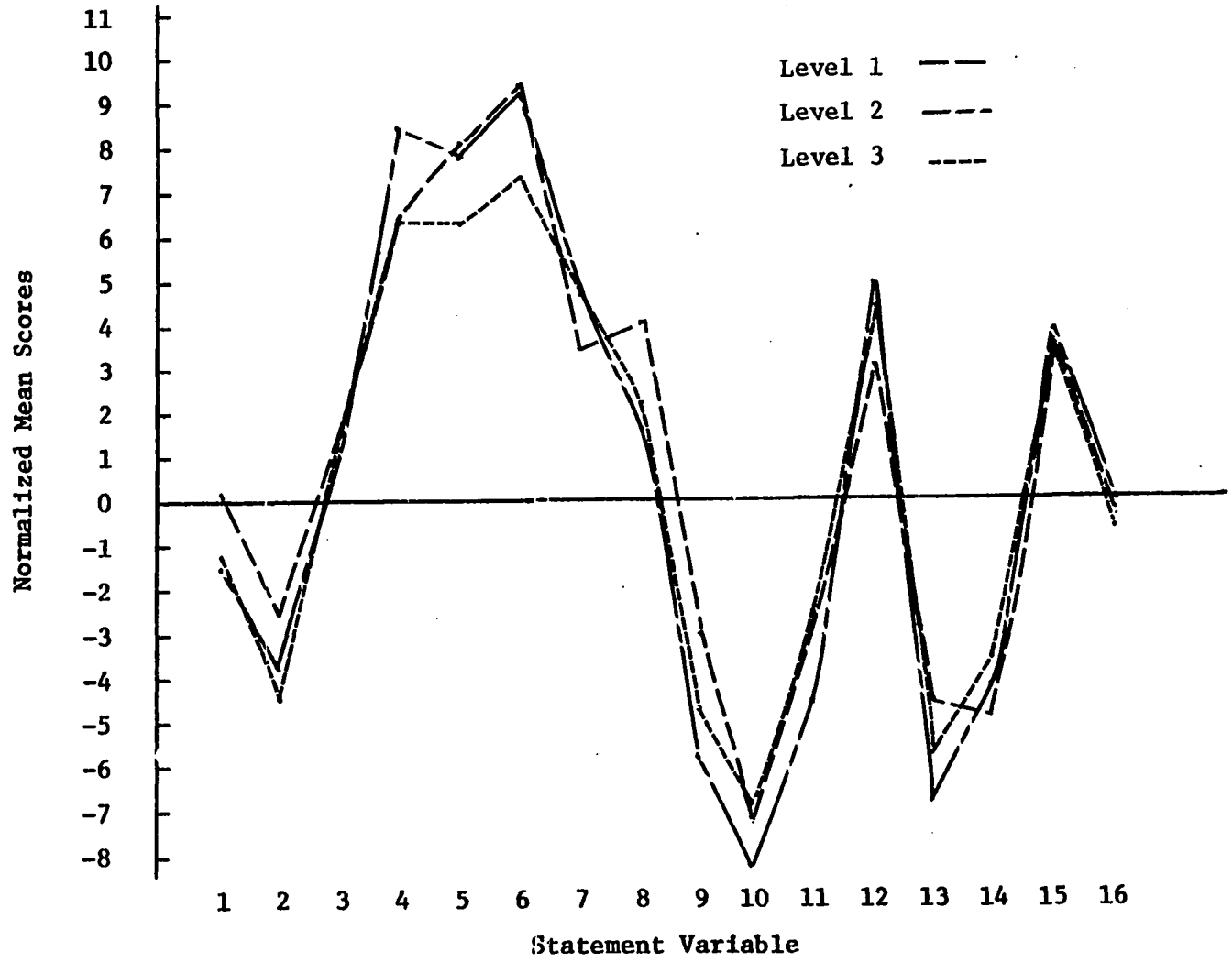


Figure 53. Statement variable profiles by educational level for photograph nine

photograph nine were rated very close by all three educational levels with several statements receiving very high or very low ratings.

Figure 54 shows a very close pattern for photograph ten for all of the statement variables by all three educational levels. Very high and very low ratings were given to some of the statement variables.

A reasonably consistent pattern of ratings were obtained for the Parent ego state. The pattern can be compared by looking at Figures 47, 48, 50, and 53. The statement variables that were rated differently are effective communication, encouragement, domination and learning. There was a great deal of similarity between Figures 47 and 50 for all of the statement variables. Figures 48 and 53 are also very similar in pattern.

The Adult ego state was represented by Figures 46 and 52. Most of the statement variables were rated in a consistent pattern. The variables of effective communication, encouragement, manipulation, domination, and learning were rated differently. Photograph eight (Figure 52) was rated higher than photograph two (Figure 46) by all three educational levels.

The pattern of ratings for the Child ego state was remarkably consistent. The Child ego state was represented by Figures 45, 49, 51, and 54.

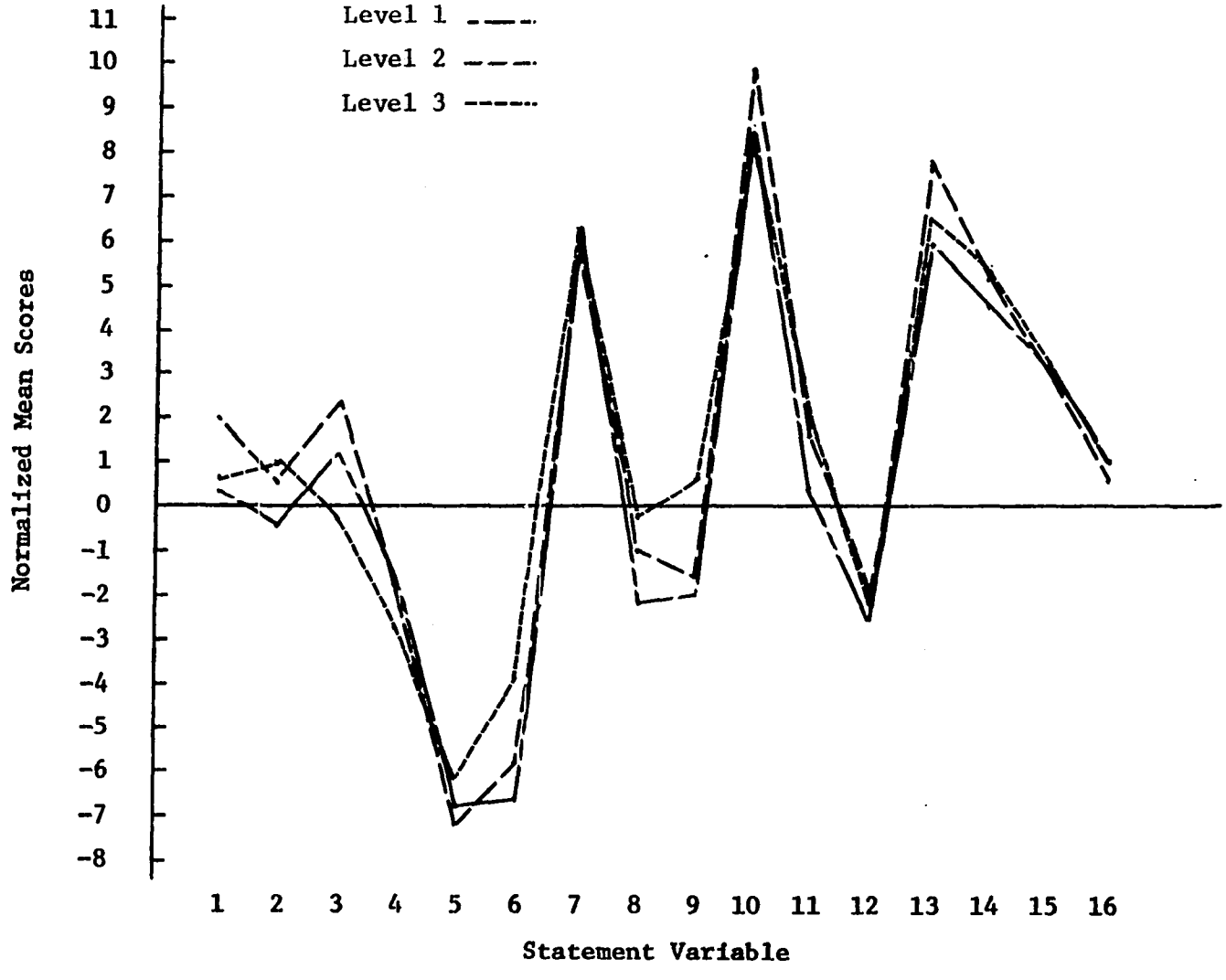


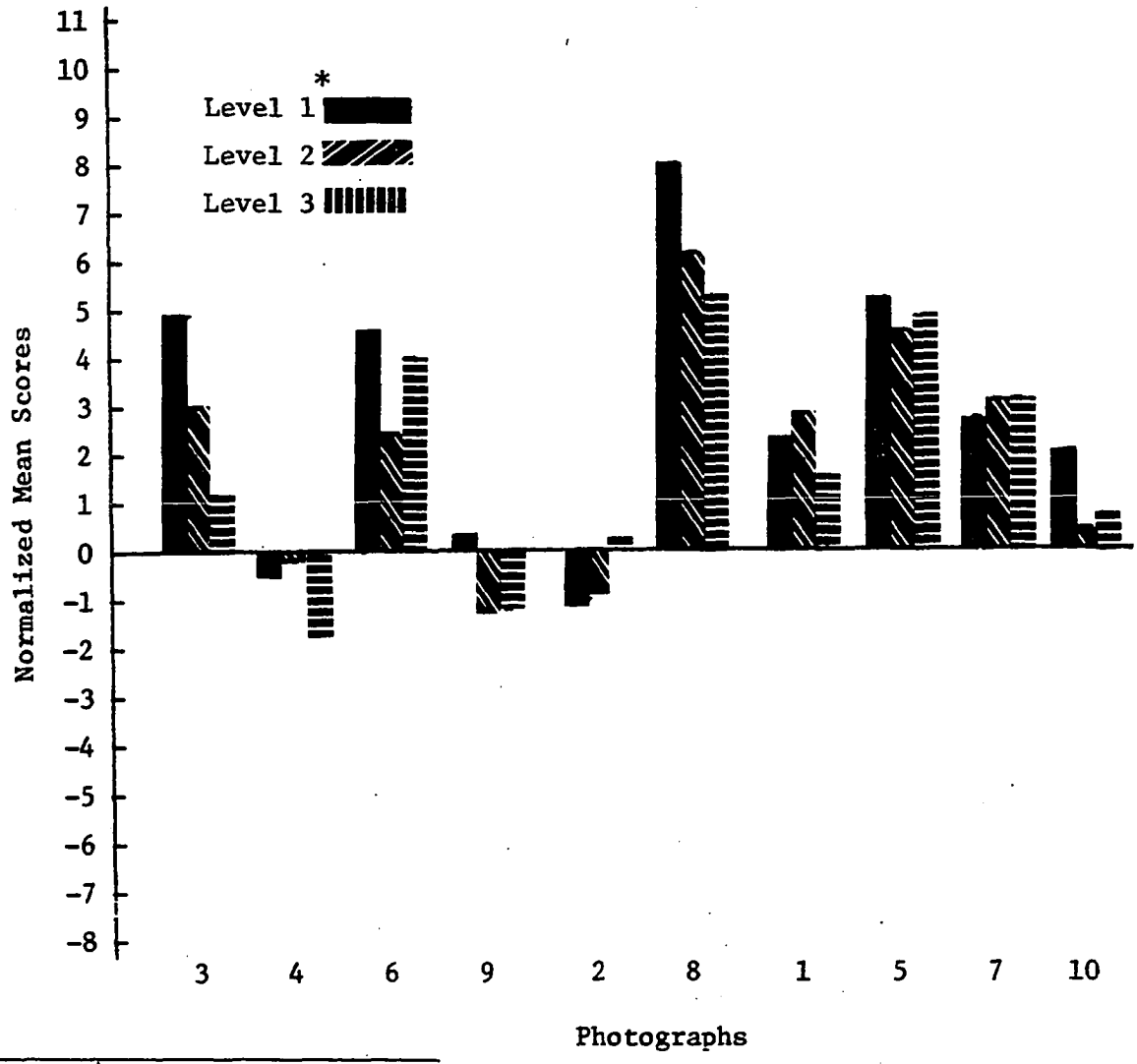
Figure 54. Statement variable profiles by educational level for photograph ten

Statement variable ego state profiles

This section of the findings is made up of ego state profiles for the three educational levels. There is one profile for each of the statement variables. The profiles are set up to group the appropriate photographs by the ego states. The Parent ego state is represented by photographs three, four, six, and nine. The Adult ego state is represented by photographs two and eight. The Child ego state is represented by the photographs one, five, seven, and ten.

Figure 55 shows the profile for effective communication. All three educational levels rated photograph number eight the highest. The second highest rated photograph is number five. The Child ego state is the only consistently rated ego state with all four photographs receiving positive ratings by all three educational levels. The Parent and the Adult ego states are inconsistent in that some of the photographs received negative ratings by one or two educational levels.

Figure 56 shows the profile for the variable of encouragement. The profile is very similar to the profile for effective communication. The most favorable photograph rating was given to photograph number eight. The respondents with a high school education or less rated photograph number eight the highest. The respondents with some college or technical school rated the photograph at the midpoint and



*Level 1 = High school or less
Level 2 = Some college or technical school
Level 3 = College gratuate
The educational level coding indicated is identical for the remaining profiles.

Figure 55. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of effective communication

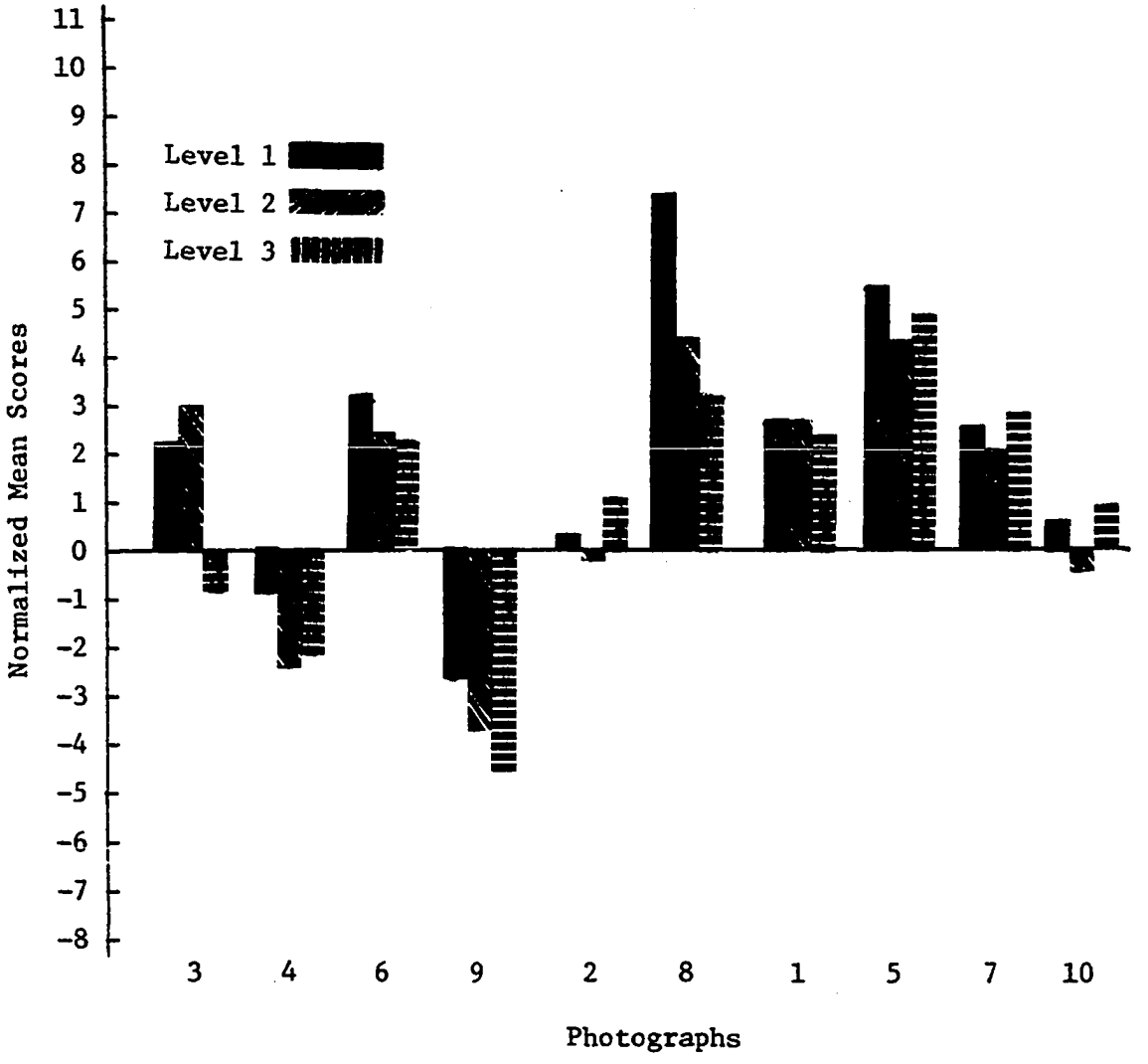


Figure 56. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of encouragment

the college graduates rated the photograph the lowest. The photograph that received the second highest rating was number five. Photographs six, one, and seven were rated about equally. The Child ego state received the most consistent ratings by all three educational levels.

Figure 57 shows the profile for the variable of manipulation. Photograph number six received the most favorable rating from all three educational levels. The respondents with a high school education or less rated photograph eight second and photograph five third. The college graduates rated photograph nine second and photograph five third. The respondents with technical school or some college rated photograph seven second and photograph five third. All of the photographs except number nine and number seven were rated favorably by educational level one and unfavorably by educational level three. The Child ego state was more consistent but the Parent and Adult ego states had the highest rated photographs.

Figure 58 shows the profile for the variable of domination. Photographs nine, six, four and three received the highest ratings in the stated order. Photographs three and six were rated highest by educational level one and lowest by educational level three. Photographs four and nine were rated highest by educational level two. The Parent ego state was very consistent with high ratings while the Child

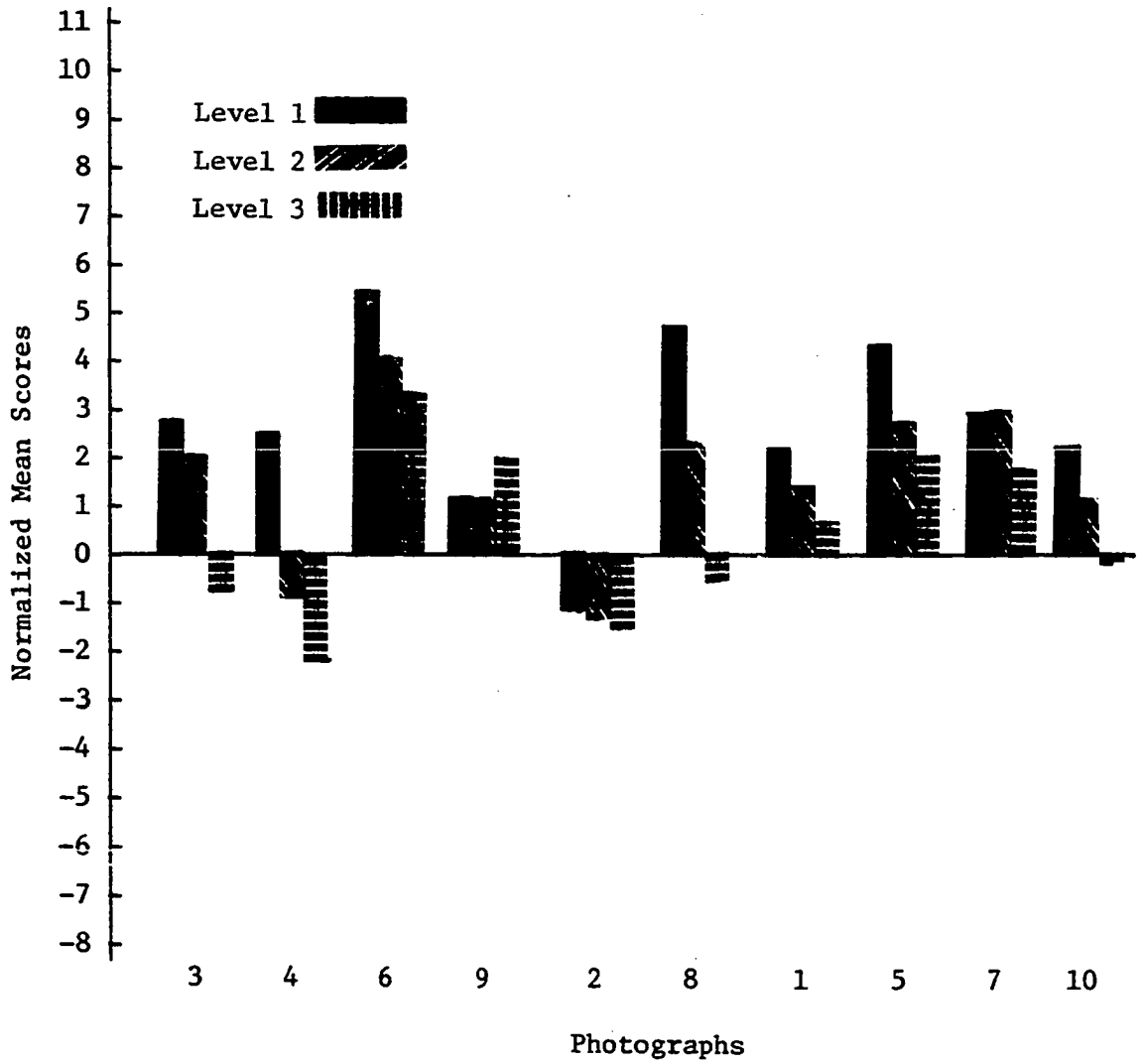


Figure 57. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of manipulation

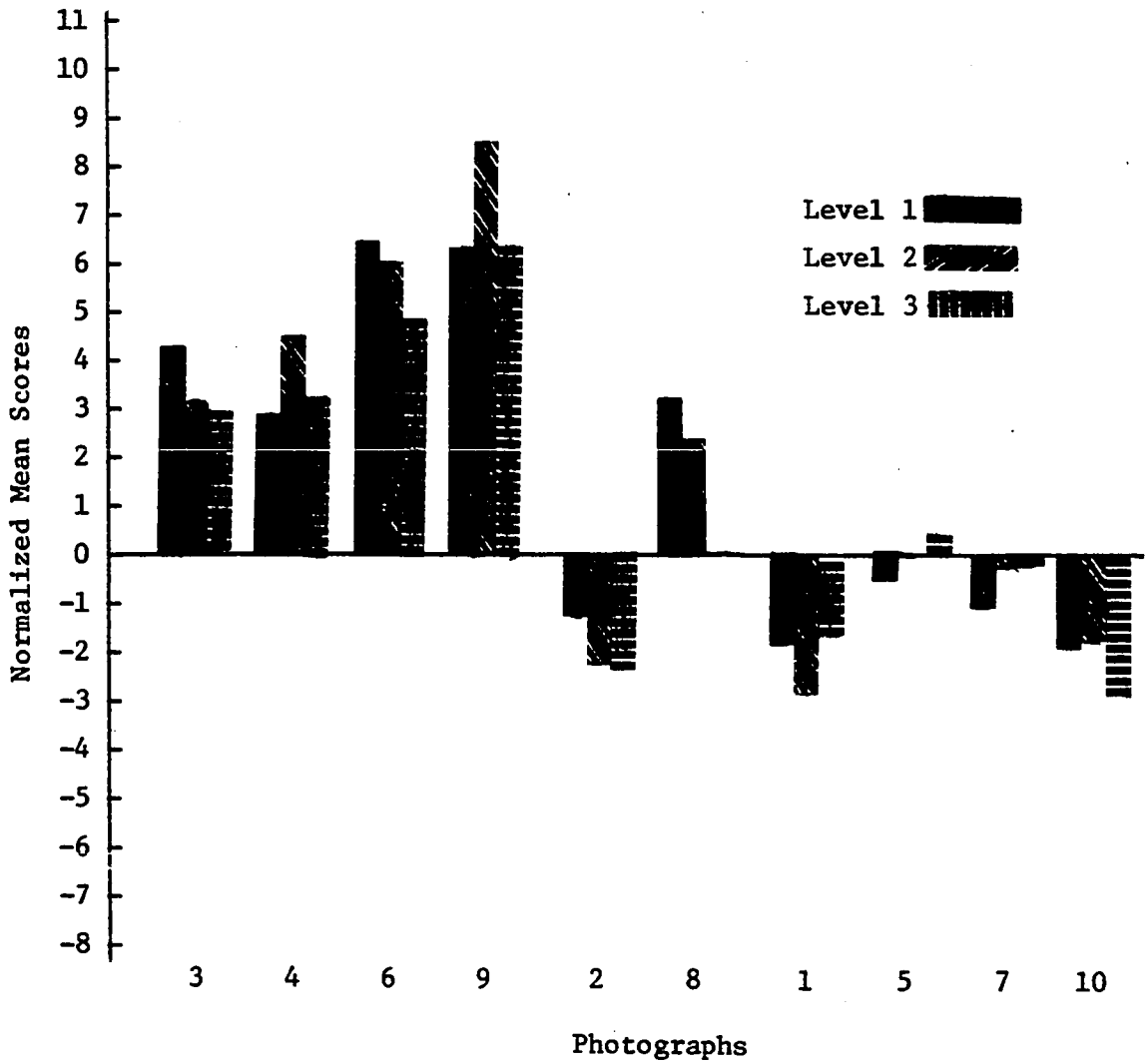


Figure 58. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of domination

ego state was fairly neutral. The Adult ego state was mixed with photograph eight rated positively and photograph two rated negatively by all three educational levels.

Figure 59 shows the first very definite ego state pattern. The pattern is for the variable of punishment and clearly indicates that the Parent ego state was rated favorably and the Child ego state was rated very unfavorably by all three educational levels. The negative ratings for the Child ego state were more consistent than the positive ratings given to the Parent ego state. The Adult ego state photographs received negative ratings but they were not as negative as the ratings of the Child ego state photographs.

Figure 60 shows the profile for the variable of demanding performance. The profile indicated a very strong positive rating for the Parent ego state and a less strong but still positive rating for the Adult ego state photographs by all three educational levels. The profile had a consistent pattern and was very similar to the profile of punishment. The differences were that the ratings shift to some degree. The Parent ego state photograph ratings were much stronger for the variable of demanding performance than they were for the variable of punishment. The Child ego state photographs were rated much stronger for the variable of punishment than they were for the variable of demanding

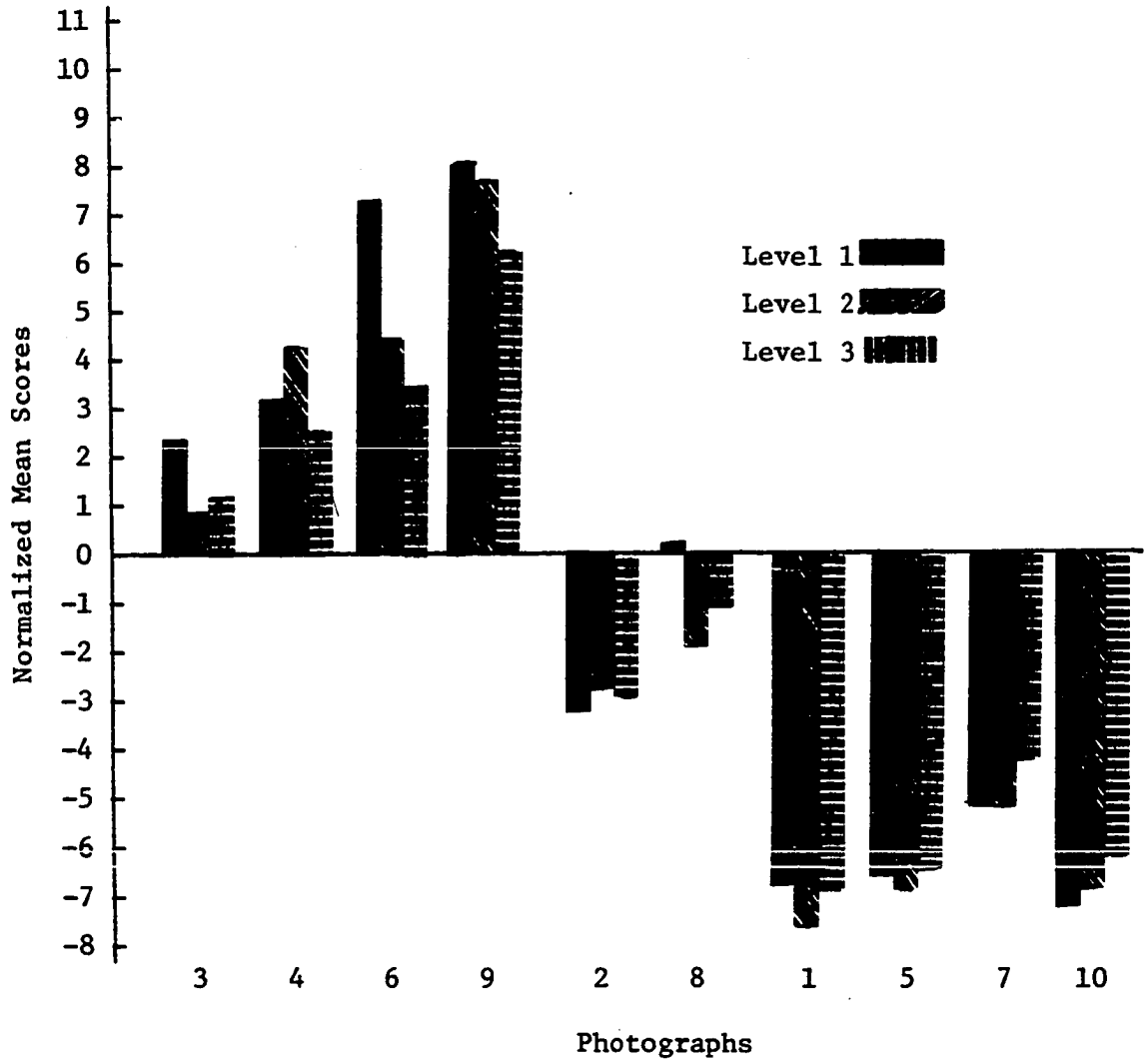


Figure 59. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of punishment

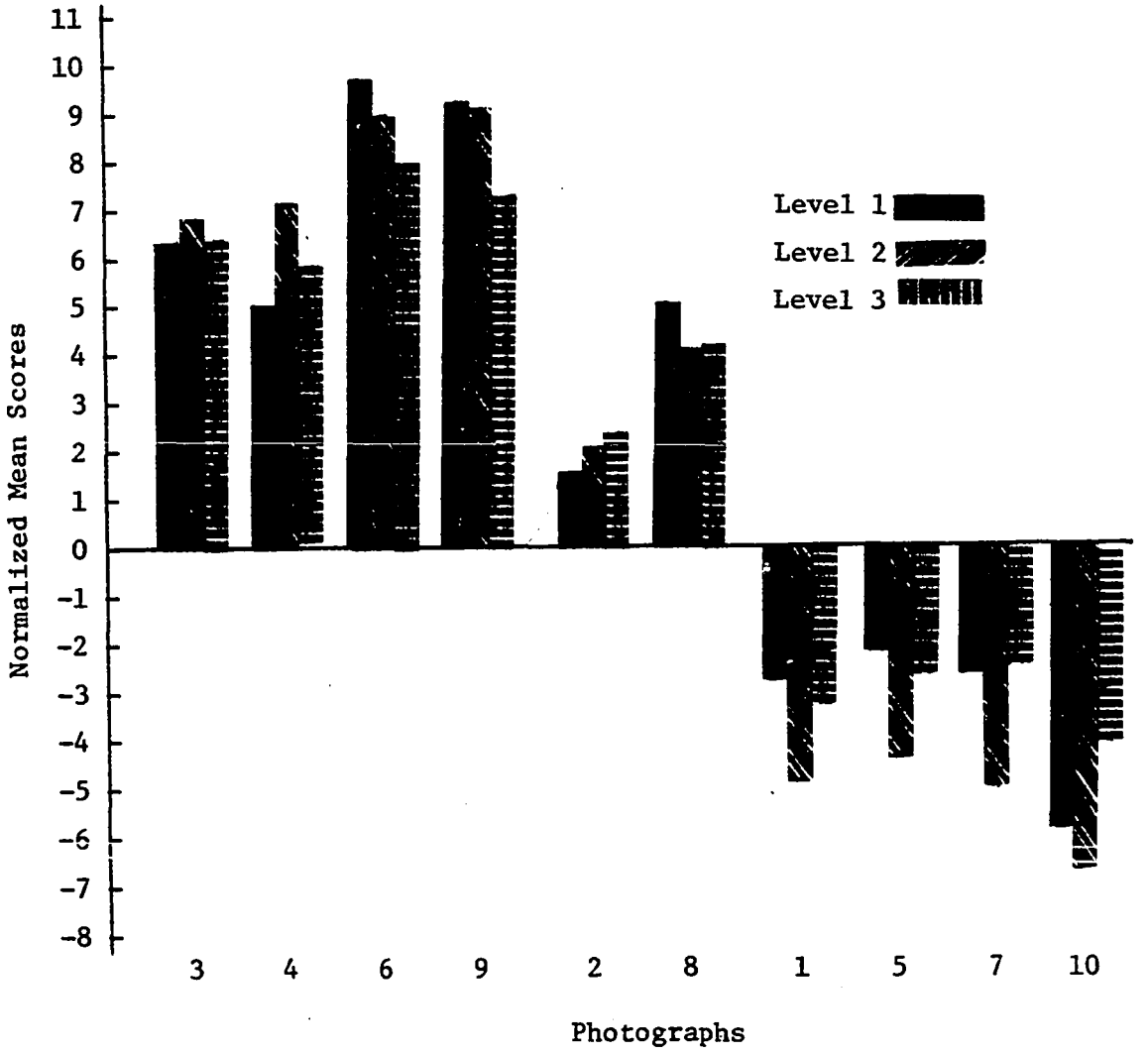


Figure 60. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of demanding performance

performance. The Adult ego state photographs were rated positively for the variable of demanding performance and negatively for the variable of punishment.

Figure 61 shows a fairly weak profile for the variable of self-centered. Photographs ten and nine received the highest ratings. The Child ego state received a slightly higher rating than the Parent ego state. The Adult ego state ratings were negative. All the photographs were rated about the same by the three educational levels.

Figure 62 shows the profile for the variable of competence. The Parent and the Adult ego states were rated about equal by all three educational levels. Photograph number eight received the most favorable ratings and was followed very closely by photograph three. The respondents with a high school education or less rated the two photographs the highest. The respondents with some college or technical education rated the photographs second and the respondents with a college degree rated the photographs the lowest. The Child ego state was rated very near neutral.

Figure 63 shows the profile for the variable of sympathy. The Adult ego state received the highest ratings. The Parent ego state was rated negatively and the Child ego state was perceived as being neutral. Educational level three rated the Child ego state more positively than the

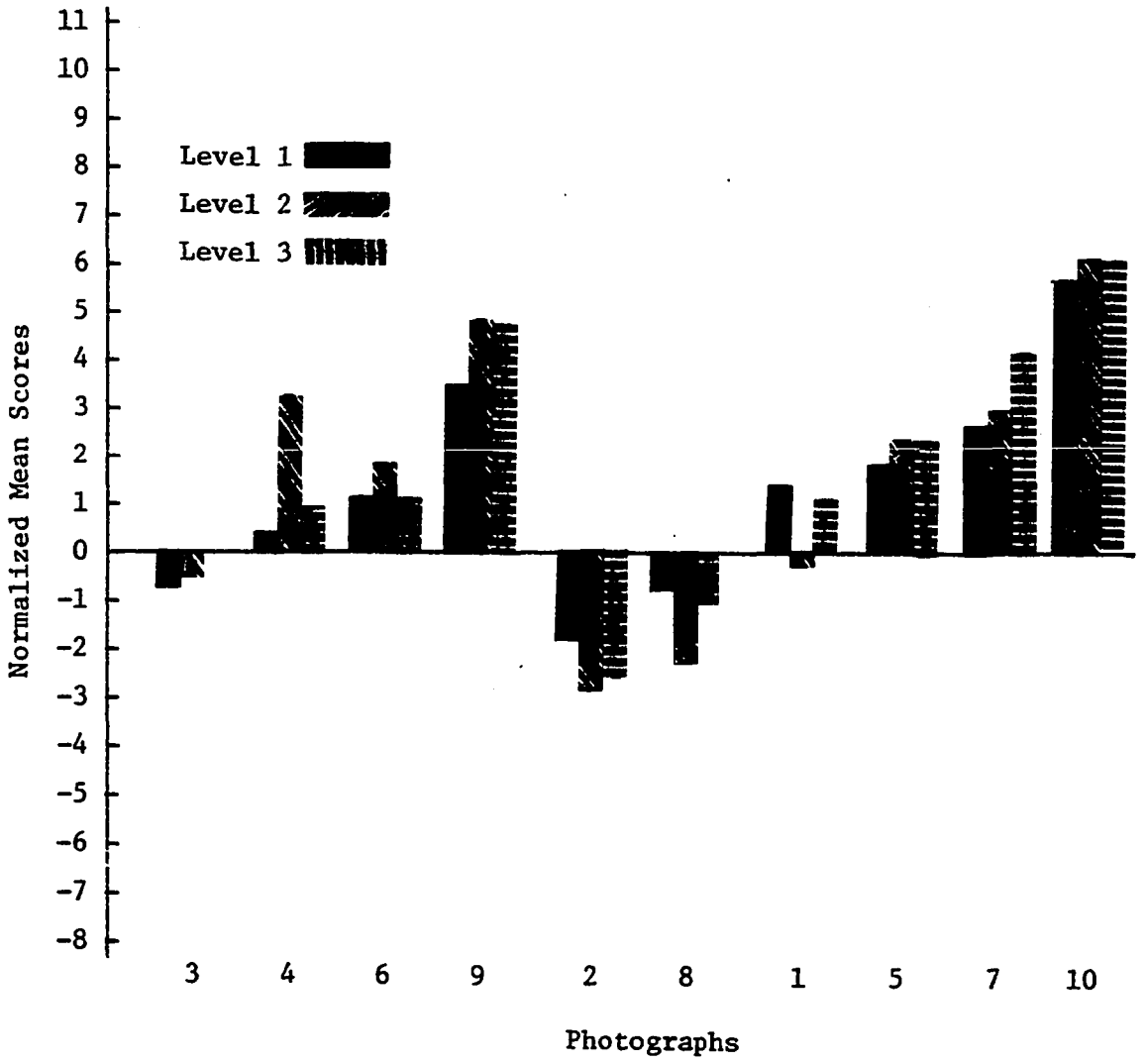


Figure 61. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of self-centered

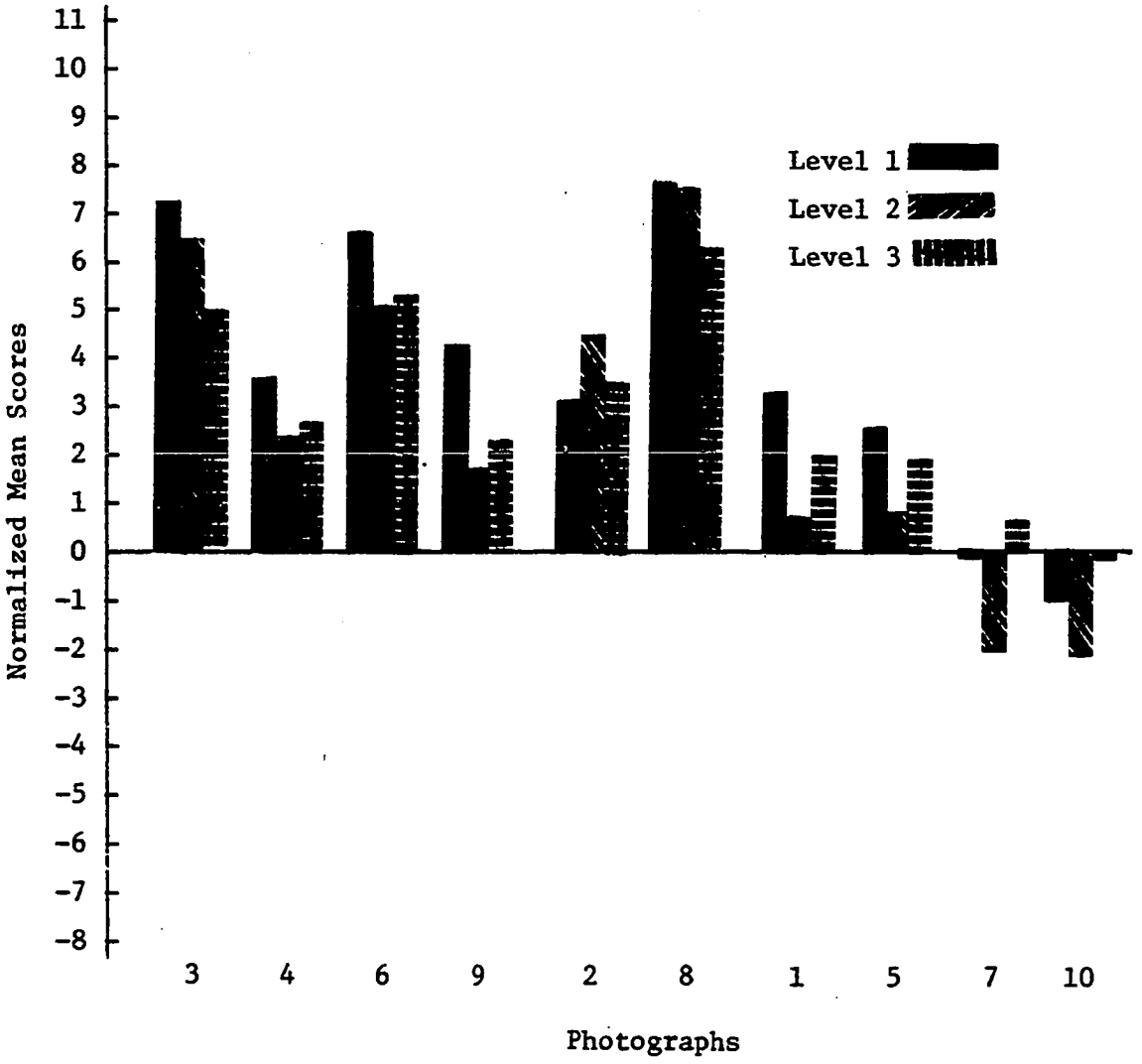


Figure 62. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of competence

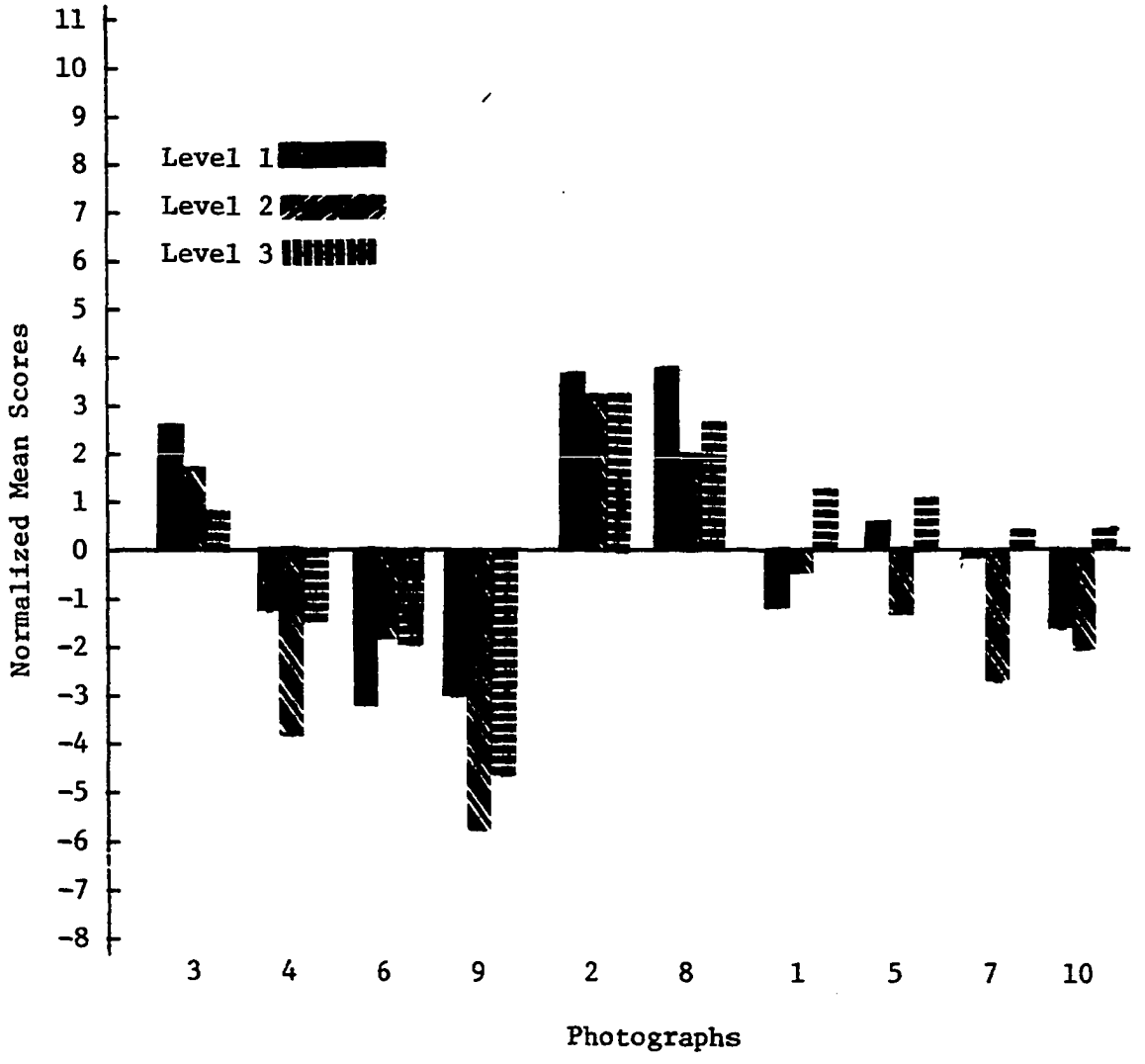


Figure 63. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of sympathy

other two educational levels. The respondents with a high school education or less rated the positively rated photographs the highest.

Figure 64 shows a very strong ego state pattern for the variable of fun. The Child ego state was perceived as being fun while the Parent ego state received negative ratings. The Adult ego state was perceived as being neutral. The ratings by educational level were mixed.

Figure 65 shows the profile for the variable of compliancy. The profile was not very strong. The pattern indicated that the Child and Parent ego states were about equally rated on the favorable side. The Parent ego state was rated unfavorably. The ratings were inconsistent by educational level.

Figure 66 shows the profile for the variable of prejudice. The profile was moderately strong and consistent for the ego states. The Parent ego state received the higher ratings and the Child and Adult ego states received negative ratings at about equal levels. Educational level two rated the positive photographs higher and the negatively rated photographs lower than the other two educational levels.

Figure 67 shows a strong profile pattern for the variable of warmth. The Child ego state was rated very highly and the Parent ego state was rated negatively. The Adult ego state was rated positively but not very high.

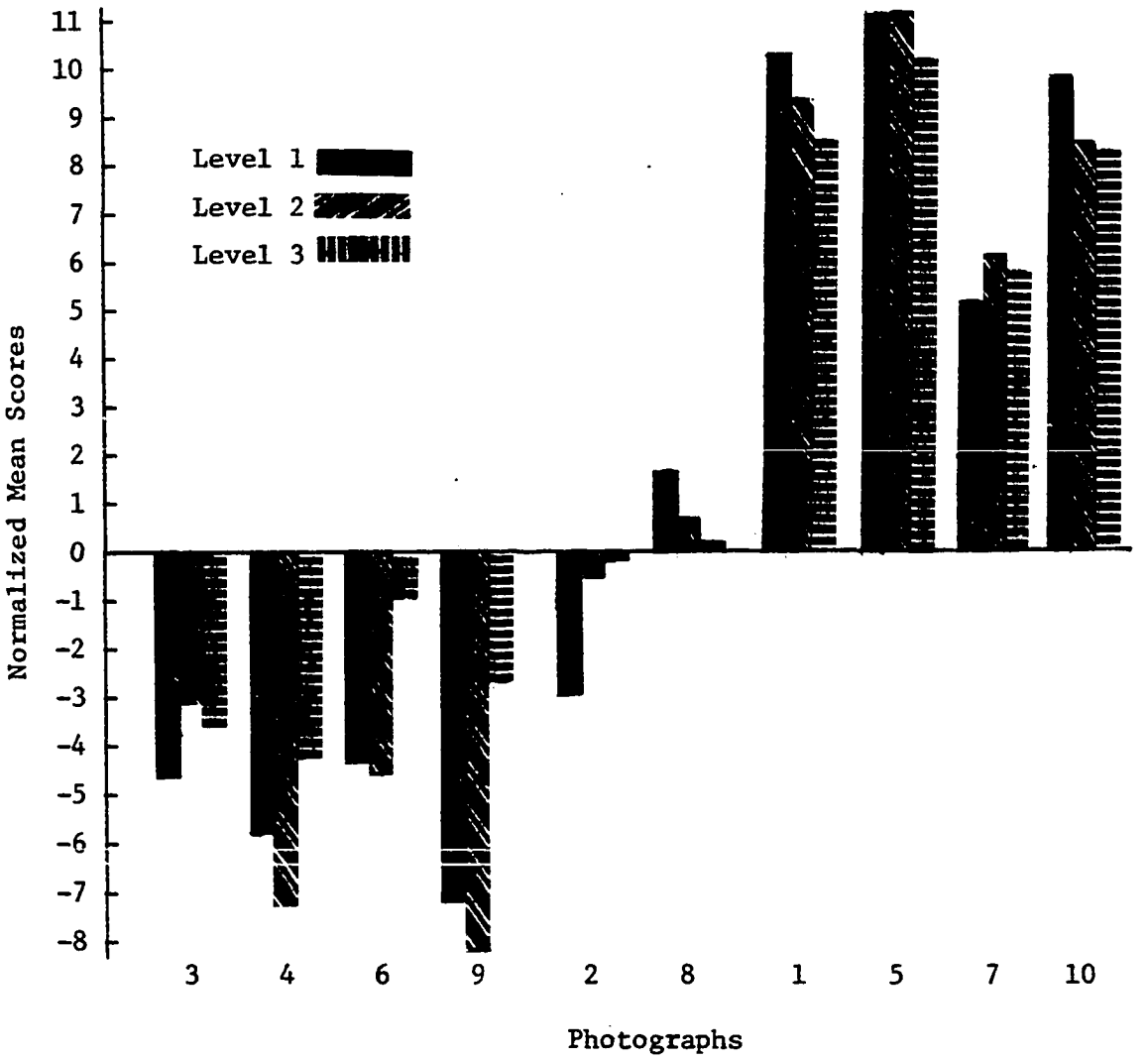


Figure 64. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of fun

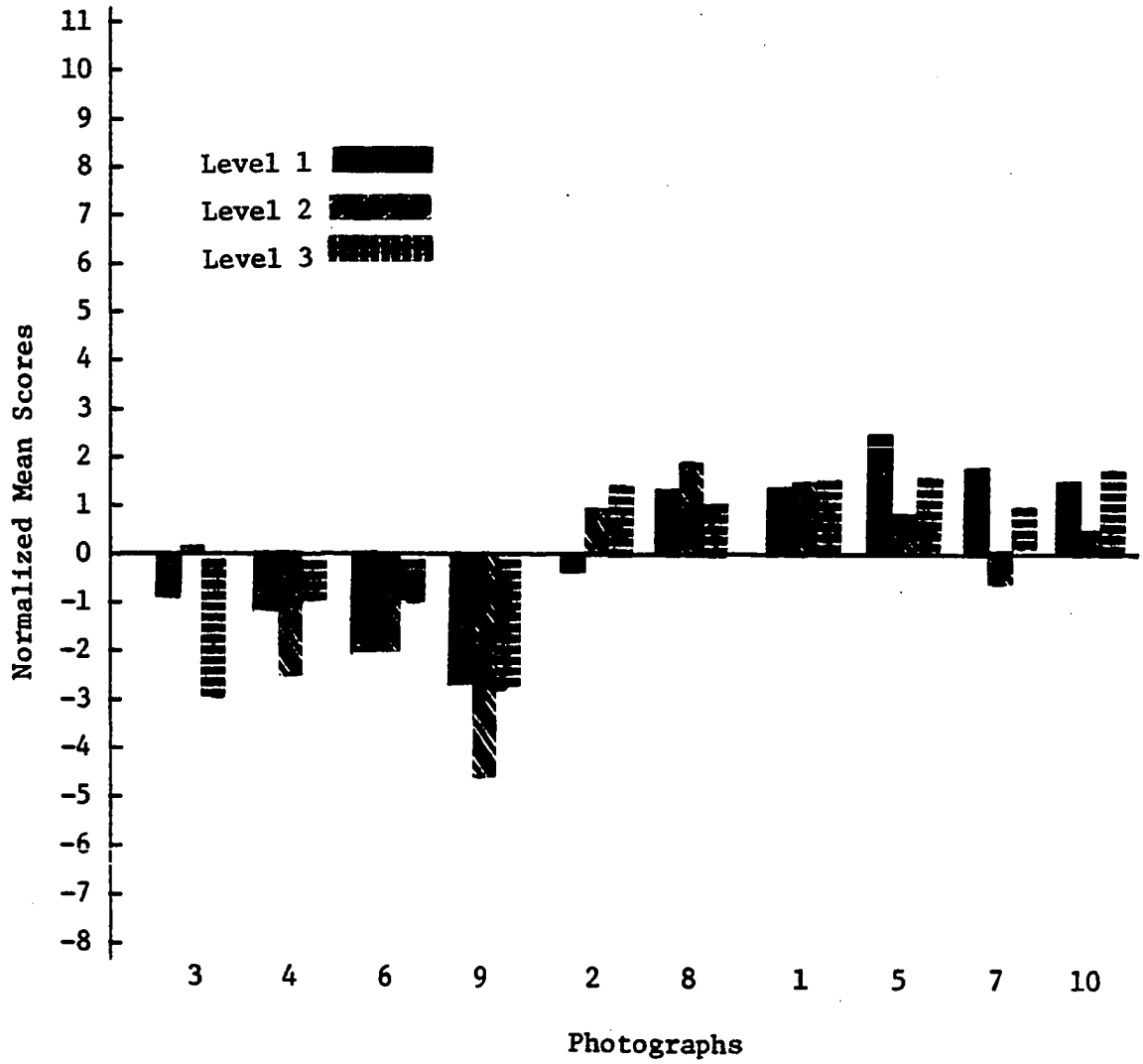


Figure 65. Profile of the Parent, Adult and Child ego states by educational level for the variable statement of compliancy

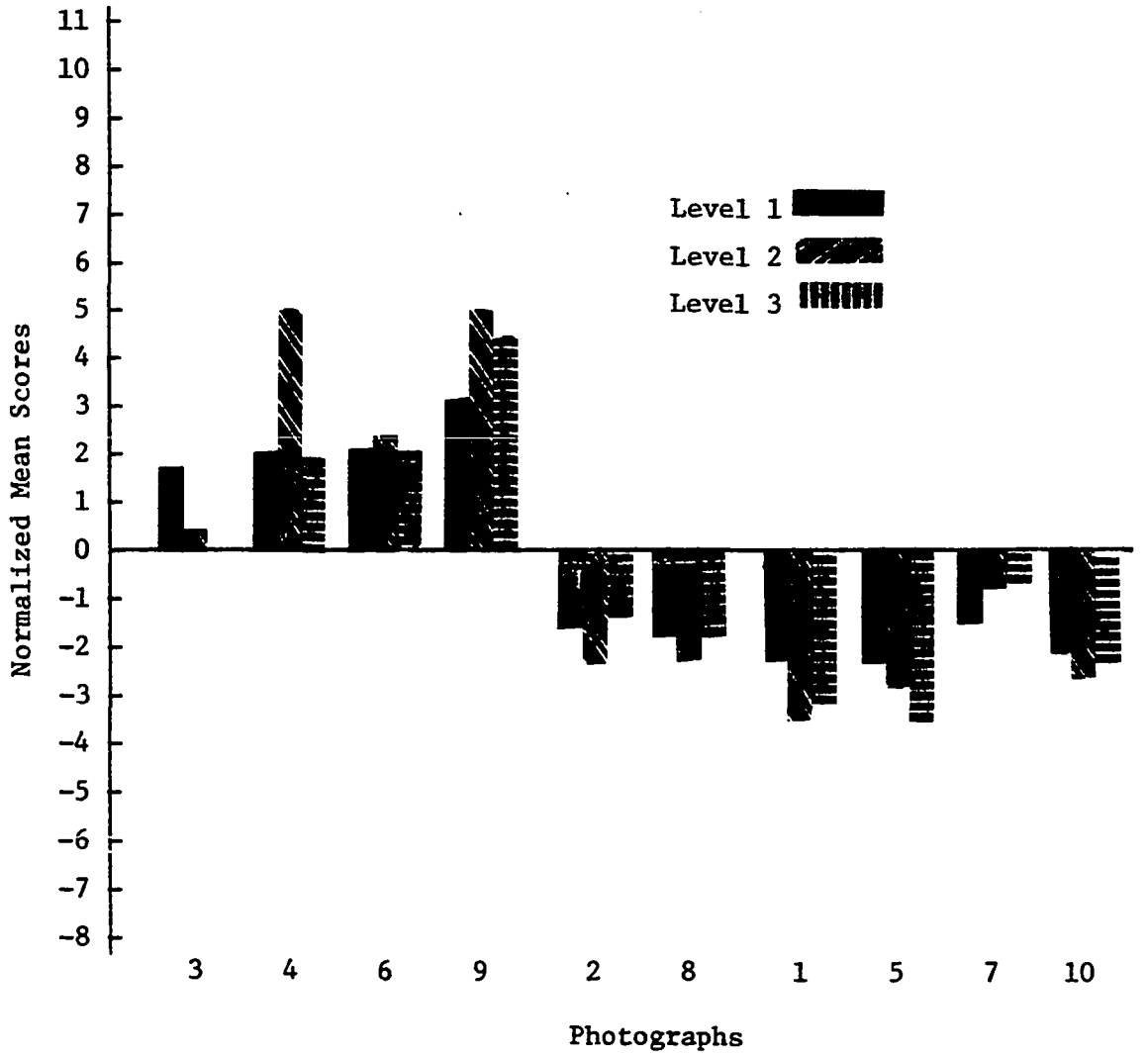


Figure 66. Profile of the Parent, Adult and Child ego states by educational level for the variable statement of prejudice

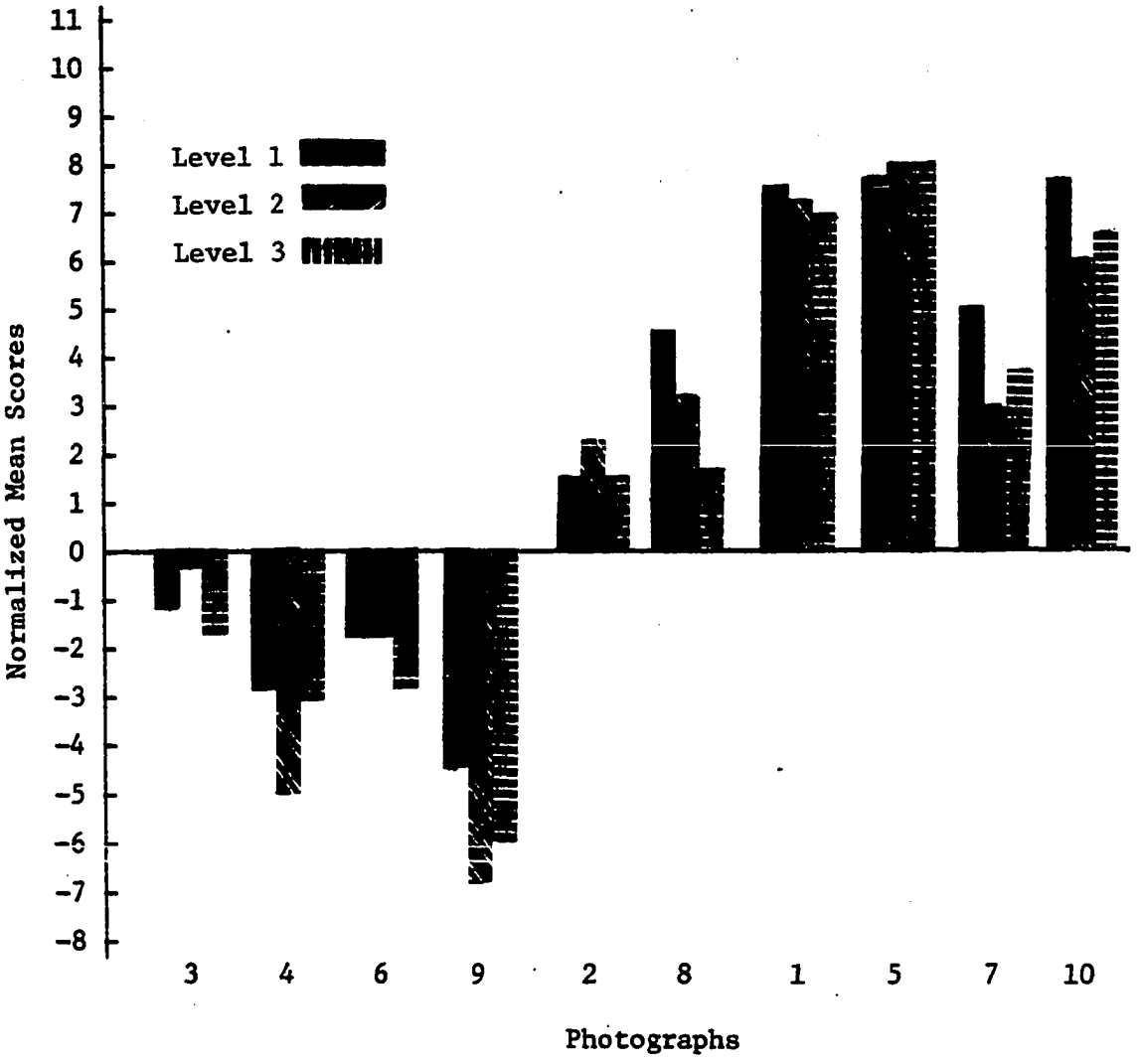


Figure 67. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of warmth

Educational level two rated the negative photographs lower than the other educational levels. Educational level one rated the positive photographs higher than the other two educational levels.

Figure 68 shows a very strong profile pattern for the Child ego state for the variable of enthusiasm. The Parent ego state was inconsistent in that photograph number six was rated positively while the other three were rated negatively. The Adult ego state was also inconsistent with one photograph rated positively and one rated negatively. The ratings were mixed by educational level.

All of the photographs for the variable of confidence shown in Figure 69 were rated positively. Photograph number eight received the highest rating and was followed very closely by photographs six, five, and three. The highest rated photograph was in the Adult ego state, the second highest rated photograph was in the Parent ego state and the third highest rated photograph was in the Child ego state. The ratings were mixed by educational level.

Figure 70 shows the profile for the variable of learning. The Adult ego state was rated highest. The ratings by educational level were mixed. All of the photographs but number nine were rated positively. The photographs preferred by the respondents were eight, two, three, four, one, and five. The respondents with a high school education or

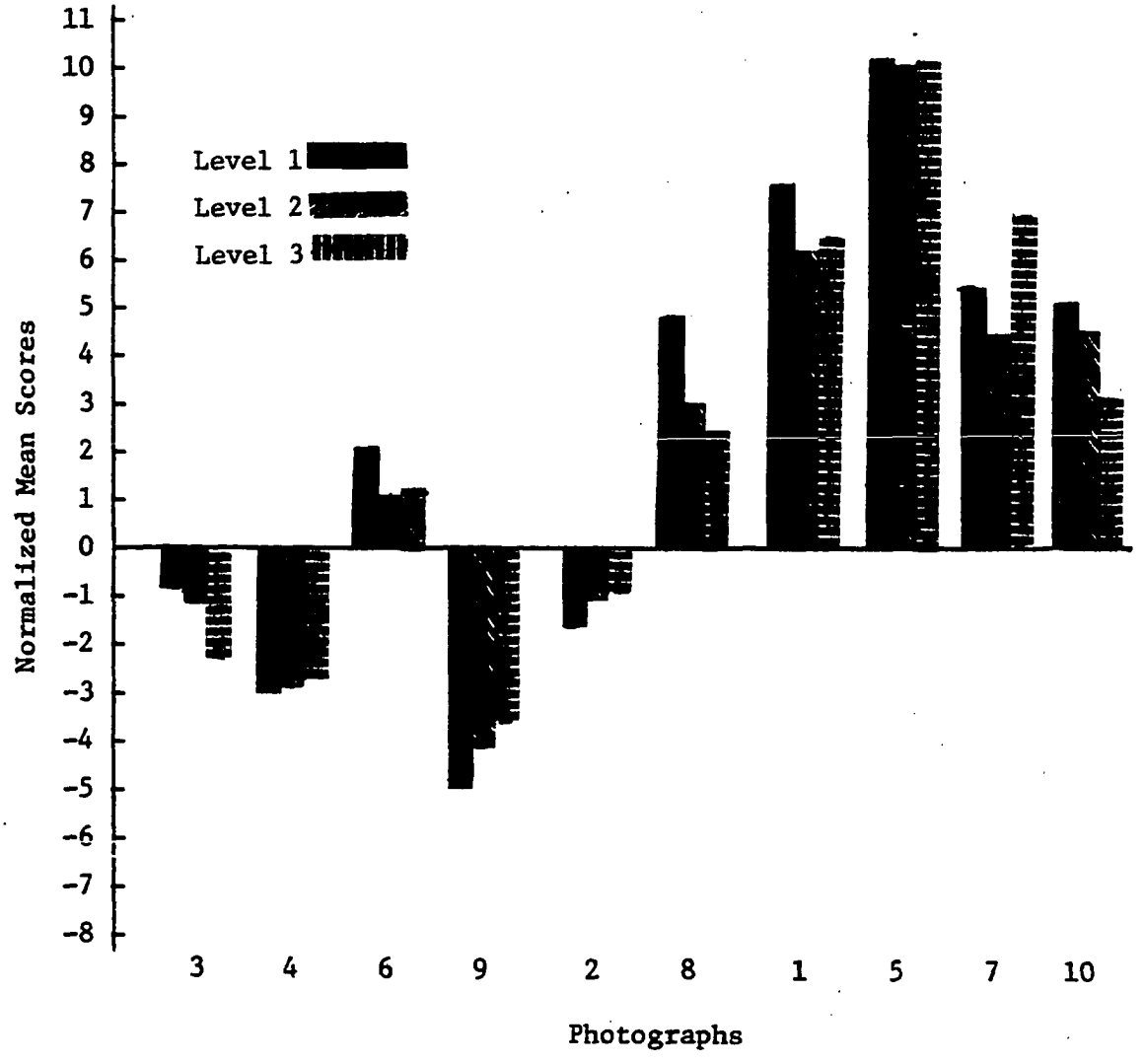


Figure 68. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of enthusiasm

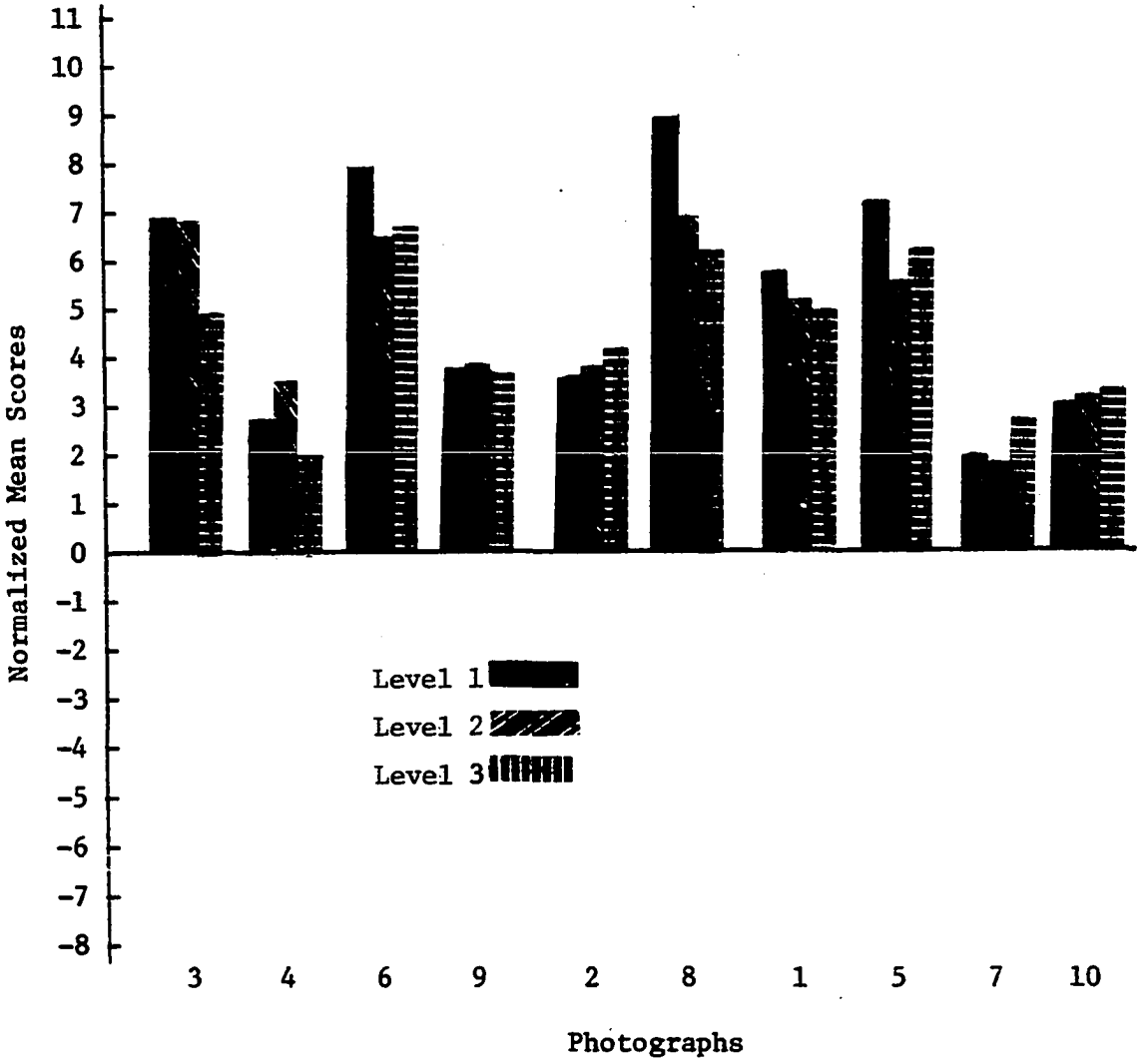


Figure 69. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of confident

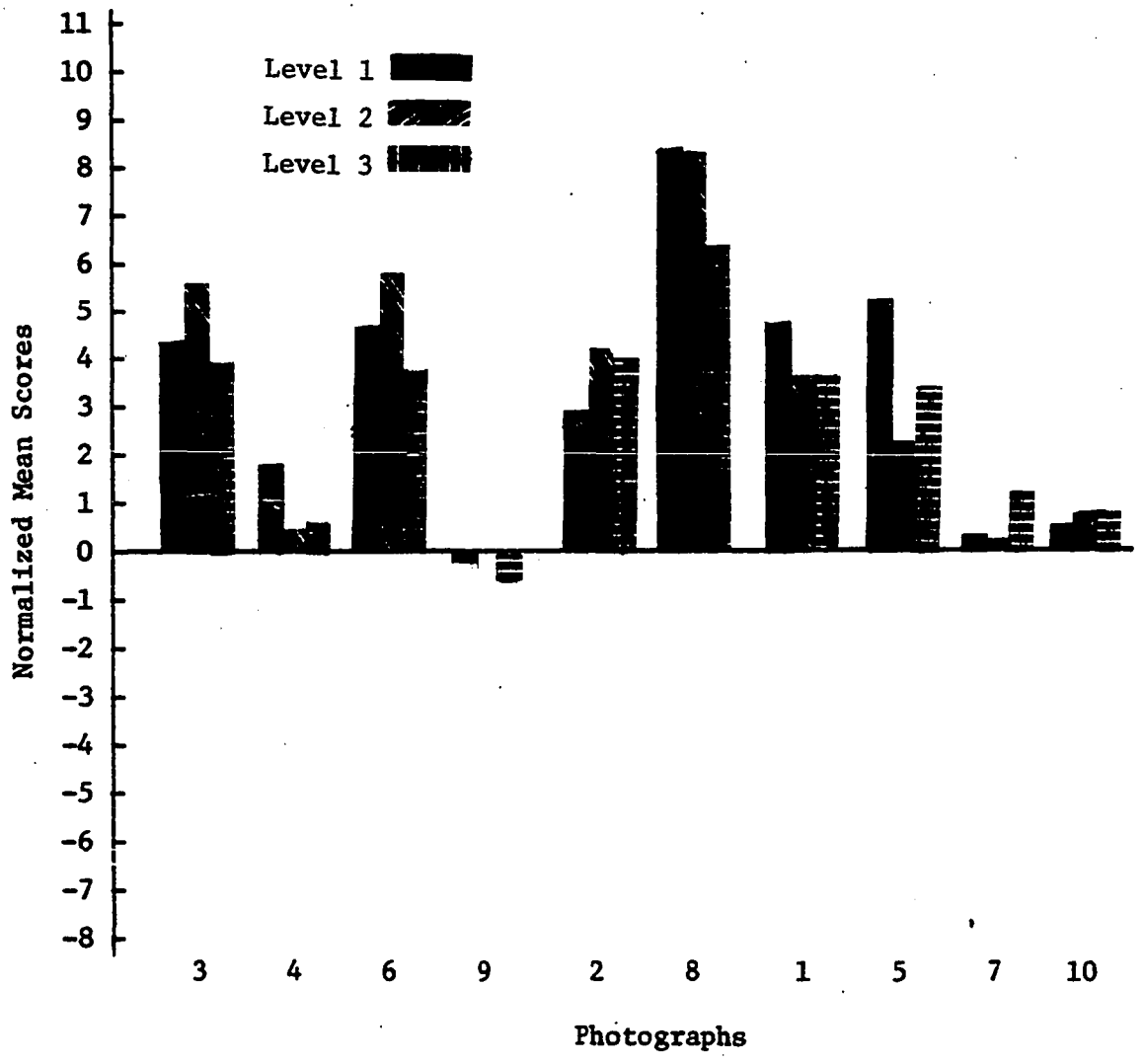


Figure 70. Profile of the Parent, Adult and Child ego states by educational level for the statement variable of could learn

less preferred the photographs in the following order; eight, five, one, six, three, and two. The respondents with a technical education or some college preferred the photographs in the following order; eight, six, three, two, one, and five. The respondents with a college degree preferred the photographs in the following order; eight, two, three, six, one, and five.

Although none of the profiles matched the profile for the variable of learning, there were three that came very close. The variables that came close were encouragement, effective communication and manipulation. The differences were in the ratings given to photograph two and photograph nine. Photograph two and nine needed higher ratings for a more closely aligned match of profiles.

DISCUSSION

This chapter is divided into three main sections. The first section discusses the implications of the statistical analysis. The second section deals with the ratings of the photographs. This section is divided into the Parent, Adult and Child ego states. The third section covers each of the statement variables.

Statistical Analysis

There were 323 respondents included in this study. The statistical analysis used only the 291 male respondents because of the small number of females. This limits the conclusions based on the statistical analysis to the male population.

The calculations of the sums of squares were possibly biased because the within term had to be calculated separately for all four analyses. In order to correct for the distortion in the sums of squares caused by the method of calculating the sums of squares, all of the sums of squares, except the within sums of squares, were adjusted by multiplying the sums of squares by the harmonic mean. The technique is reliable but can cause some difficulty in interpreting the significance of the F ratios.

The four tables had to be considered at the same time.

The sources of variation were age, educational level, statements, and photographs. The statement and photograph sources of variation were significant. Also, the interaction between these two variables was significant. The photograph significance would be expected because the ten photographs were selected to represent the three ego states. If the photographs F ratio was not significant the validity of the judges selections would be in doubt.

The literature on Transactional Analysis indicates that each of the statement variables selected for this study can be associated with the ego states. The significance of the statement variables F ratio would be expected and so would the significance of the photograph by statement interaction F ratio. The significance of these factors indicated that a graphical analysis should be carried out.

The education by photograph F ratio could be questioned. The main effect of education was not significant. None of the other interactions with education were significant either. This fact indicates that the significance of the interaction F ratio could be due to chance or error. None of the other F ratios should be questioned because they were either highly significant or were not significant at all. Even though there was some doubt about the degree or significance of the interaction between education level and photographs, a graphical analysis was made.

There was no need to analyze the factor of age in detail or in graphical form because age and the interactions with age had nonsignificant F ratios. This is contrary to what Rosenthal et al. (120) found. They reported that older people tend to be more sensitive to nonverbal communication factors.

A graphical analysis was made for the total group of males. The interpretations of the graphs contributed to the main purpose of this study. The data for the small group of females was included because it was easy to do and even though statistical significance could not be shown, relationships of interest might be indicated.

Photographs

The patterns for the three ego states were very consistent. Rosenthal et al. (120) found that a single frame of video tape was effective and that is the same as a single photograph. They used only three judges to obtain the stimuli for their study. This study used 15 judges to classify the stimuli. Lewis (94) utilized a rating scale of happy to unhappy for a pictorial attitude scale and he also obtained reliable data.

The male respondents were very close in their ratings except for the first two variables. This could have been because they were rated first and a certain degree of

learning took place. The respondents established a base for their ratings and therefore, became more consistent in their ratings. The female ratings were much more inconsistent. The inconsistency did not have an impact on the pattern of the ratings but only on the strength of the pattern. In general, the females responded with higher and lower scores than the male respondents. The female respondents also tended to react more strongly to the photographs representing the Child ego state. The rating score differences could be due to the small number of female respondents.

The Parent ego state photographs

Photographs three and six had very strong patterns that were very close to being identical. The photographs are similar only in the frowning facial expression. Rothbart et al. (121) reported that frowns are considered negative feedback.

Photographs four and nine had similar patterns that were close to identical and slightly different than photographs three and six. The photographs are similar in that the instructor is looking down at the respondents and sternness or superiority is shown in the facial expression. Galloway (56) indicates that the face can show anxiety and that anxiety can be caused by an instructor showing

sternness or superiority. Fast (75) indicates that how and where an instructor stands can be very important. The results of this study would tend to confirm his findings.

Males tended to rate photograph three and four higher than the females. The female respondents rated photograph nine higher for most of the variables and photograph six was mixed in the ratings. Dunning (43) indicated that a body position has different implications for males and females. Photograph nine is less threatening and there is a degree of eye contact. Ashear and Snortum (9) indicated that females maintain eye contact longer than males. Dunning (43) also indicated that there were differences between standing and seated communicators. Standing tends to accelerate the pace. Some of the rating differences are understandable when the factors of eye contact, body position and standing versus sitting positions are considered.

The ratings of the photographs by the different educational levels were very similar for photographs three and six and four and nine. The general pattern of the ratings for the educational level were very consistent with very little difference. On the statement variables where there was some difference it appeared that educational level one tended to rate higher, with educational level three the lowest, and educational level two in the middle. This held true only for the photographs receiving the highest ratings.

In the Parent ego state this was photograph three and six. Photograph three and six appear to be less threatening than photographs four and nine.

The Adult ego state photographs

The two photographs representing the Adult ego state were quite different. Photograph two had a weak pattern and photograph eight had a very strong pattern. The males rated photograph two higher than the females and the males were more moderate in their rating of photograph eight. Photograph two was consistently rated lower than photograph eight by both the males and females as well as the three educational levels. Dunning (43) and Fast (75) indicate that there are differences in how people perceive standing and seated communicators. This is confirmed in this study. Knapp (87) indicated that leaning slightly forward indicates a positive attitude. The photograph with the lowest ratings shows the instructor leaning forward quite a bit. The standing versus sitting and the leaning factor could have influenced the ratings.

Photograph eight tended to be ranked higher by educational level one, lowest by educational level three and in the middle by educational level two. Photograph eight shows the instructor standing and with a smile and photograph two shows the instructor sitting with not quite as broad of a

smile. Again, we can refer to Dunning (43), Fast (75), and Knapp (87) as the standing versus sitting and the leaning factors are possibly affecting the ratings of the photographs.

The Child ego state photographs

The four photographs representing the Child ego state had very close patterns and very strong patterns. Photographs one and ten received consistently lower ratings by the male respondents. The male respondents were more moderate than the females in their rating of photographs five and seven. In all four photographs, the instructor is smiling. Romine (118) indicates that smiling shows interest in studies. Keith et al. (81) indicate that smiling indicates approval. Rothbart et al. (121) indicate that smiles are positive feedback. Kleinfield (86) indicated that smiles were used to create a warm environment and people learned more in a warm environment. He stated that females received higher scores than males in a warm climate. The results of this study are consistent with Kleinfield's.

The ratings given to the Child ego state photographs were mixed and fairly even for all three educational levels.

Statement Variables

Some of the variables received very high ratings for a particular ego state while others received what appeared to be ratings against an ego state. For example, a statement would have a very moderate rating for the Parent ego state photographs and a very strong negative rating for the Child ego state. The rater seems to be saying that the statement is definitely not the Child and may possibly be the Parent ego state. For many of the variables there was no question about which ego state was in operation.

The Adult ego state was rated highest for the variable of effective communication and the Child ego state was rated lower and consistently positive. The female respondents were more positive in their ratings than the male respondents. Aspy (10) reported that effective instructors were good listeners and were better communicators. Rush and McGrath (122) and Zaffarano (150) reported that people using the Adult ego state communicated more effectively and were better in handling interpersonal problems. Romine (118) indicated that dynamic instructors were highly rated by students.

The Adult ego state received the higher rating for the variable of encouragement but again, the Child ego state was rated consistently positively. The female respondents

also rated more positively than the male respondents. Aspy (10) reports that effective instructors used more praise and encouragement.

The Parent and the Child ego states were rated about equally for the variable of manipulation. The females tended to rate lower than the males. There was a fairly consistent pattern of educational level one rating highest, educational level three the lowest and educational level two in the middle. The respondents had a difficult time in distinguishing manipulation as evidenced by two ego states being rated equally positive.

The Parent ego state was rated positively for the variable of domination and the Child ego state was rated as neutral. The male and female ratings were very close and so were the ratings of the different educational levels. Mueller and Baker (105) indicated that when the Parent ego state is in control, a person tends to become more dominant.

The Parent ego state was rated favorably and the Child ego state was rated very negatively for the variable of punishment. The Adult ego state received slightly unfavorable ratings. The male respondents were much stronger in their ratings of the Parent ego state than the female respondents. The highest rated photographs were rated most favorably by educational level one, least favorably by educational level three, and in the middle by educational

level two.

The Child ego state was rated very negatively while the Parent ego state was rated very positively for the variable of demands performance. The Adult ego state received a positive rating. The respondents with a high school education or less rated the highest, the college graduates the lowest, and the respondents with some college or technical education were in the middle. The male respondents rated the Parent ego state higher and the Child ego state lower than the female respondents.

The Parent and Child ego states were about equal in their rating with the Child slightly higher for the variable of self-centered. The Adult ego state was rated negatively. The male respondents tended to be more positive in their ratings. Hodge (73) reports that the extent of interest in other people is communicated through nonverbal behaviors. A self-centered person would not display those nonverbals indicating interest. Scott (129) indicates that the self-image has an impact on learning. If an instructor is self-centered the image may be communicated through nonverbal behaviors and have a negative impact on learning. The three educational levels rated the photographs about equally.

The Parent and Adult ego states were rated about equally positive and the Child ego state was rated

negatively for the variable of competence. The ratings of the male and female respondents were about equal except for photograph one. The positive ratings were higher for educational level one, lowest for educational level three, and in the middle for educational level two.

The Adult ego state was rated the highest for the variable of sympathy and the Parent ego state was rated negatively. The Child ego state was perceived as being neutral. The higher ratings were given by the respondents with a high school education or less. The male and female respondents rated the photographs about equally.

The Child ego state was rated very positively for the variable of fun. The Parent ego state was rated very negatively and the Adult ego state was divided positively and negatively but near neutral. The male and female respondents were very close in their ratings. The ratings were near equal for the educational level for all the photographs except four, six and nine. The college graduates rated those three photographs much more neutral than the other educational levels.

The Adult and the Child ego states were rated about equally for the variable of compliancy. The Parent ego state was rated negatively. The female respondents were more negative on the Parent ego state. The ratings were near equal for all three educational levels.

The Parent ego state was rated positively for the variable of prejudice. The Child and the Adult ego states were rated negatively. The female respondents were slightly more negative in their ratings. Educational level two rated the photographs more positively than the other educational levels. Mueller and Baker (105) indicate that when the Parent ego state is in control, a person tends to be judgmental and prejudiced.

The Child ego state was rated positively for the variable of warmth and the Parent ego state was rated negatively. The Adult ego state was slightly positive. The female respondents were more positive in their ratings of the Child ego state. Educational level one tended to be more positive and educational level two tended to be more negative in their ratings. Kleinfield (86) reported that females tended to learn more in a warm environment. Keith et al. (81) indicated that approval in the form of smiles was influential on student behavior especially in task related behavior.

The Child ego state was rated very positively and the Parent ego state was rated negatively for the variable of enthusiasm. The Adult ego state received mixed ratings. The female respondents rated the positive ratings higher and the negative ratings lower than the male respondents. Educational level one tended to rate the high ratings

higher than the other two educational levels. Romine (118) indicated that enthusiasm was highly rated as a factor that contributes to learning. Koch (90) reported that only 25 percent of the instructors he observed exhibited enthusiastic nonverbal behaviors.

The Parent, Adult and Child ego states were all positive for the variable of confidence. The female respondents rated the Child ego state higher than the male respondents. Scott (129) reports that a positive self-image has a positive value in learning. Confidence depends on a positive self-image. The educational levels were mixed in their ratings of the photographs.

The Adult ego state was rated positively for the variable of learning and the other two ego states also had some positive ratings of selected photographs. The male respondents preferred an Adult ego state photograph, followed by Parent ego state photographs and then Child ego state photographs. The female respondents preferred an Adult ego state photograph, followed by Child ego state photographs and then Parent ego state photographs.

The respondents with a high school education or less preferred an Adult ego state photograph followed by Child ego state photographs and then Parent ego state photographs. The respondents with some college or a technical education preferred an Adult ego state photograph followed by Parent

ego state photographs and then the other Adult ego state photograph and lastly the Child ego state photographs. The college graduates preferred the Adult ego state photographs, followed by the Parent ego state photographs and then the Child ego state photographs. The analysis would have been more meaningful if more photographs were used in the study.

CONCLUSIONS

The results indicated that several statement variable profiles were very similar to the profile for the variable of learning. The respondents perceived the variables of communicates effectively, competence, and confidence in the same way as the learning variable. The respondents indicated positive feelings for instructors who display nonverbal cues that signal that they are able to communicate effectively, that they are competent and that they are confident. The profiles for the variables of confidence, competence and effective communication were very similar to the profile for the variable of learning for all three educational levels.

Using the Adult ego state as a key, the variables of encouragement, demanding performance, sympathy, warmth and enthusiasm also contributed to the learning environment. The respondents had positive feelings for an instructor who displayed the nonverbal cues that would lead them to feel the instructor would be encouraging, would demand performance, would be sympathetic, would be enthusiastic, and show warmth.

The data indicates that the respondents reacted favorably to an instructor who utilizes all three ego states. The Adult ego state received the highest ratings and was the preferred ego state for the males and females and at all three educational levels. The male respondents preferred

the Parent ego state second and the Child ego state third. The females preferred the Child ego state second and the Parent ego state third.

Educational level one preferred the Child ego state second and the Parent ego state third. Educational levels two and three preferred the Parent ego state second and the Child ego state third.

The results indicate that the male respondents reacted favorably to an instructor that displayed the nonverbal behaviors associated positively with communicates effectively, encouragement, competence, confidence, demanding performance, domination, sympathy, punishment and manipulation. Educational levels two and three felt the same way.

The female respondents and the respondents with a high school education or less reacted favorably to an instructor who displayed the nonverbal behaviors associated positively with the variables of communicates effectively, encouragement, competence, confidence, sympathy, fun, enthusiasm, warmth, and compliancy.

Instructors need to be aware of the impact various nonverbal behaviors have on the learning environment. Nonverbal behaviors are associated with one of the three ego states. Instructors should be taught to recognize and utilize appropriate nonverbal behaviors in order to maintain a selected ego state.

Hypotheses

The factor of age was not significant. This indicated that all of the age groups responded to the photographs in the same way. The ego states were perceived fairly consistently at all ages.

The factor of educational level was slightly significant in the interaction with photographs. It appeared that educational level one was rating several of the photographs higher than level two and that level two was rating the photographs higher than level three. The three educational levels had consistent patterns for all ten photographs. The ego states were perceived in the same way by educational levels.

The factor of sex could not be tested but the data indicated that the male and female respondents reacted similarly to the stimuli. The female respondents reacted slightly stronger on the photographs representing the Child ego state.

Photographs

The patterns for the photographs that were grouped by ego state were very similar. The similar pattern indicated that the photographs representing an ego state were perceived by the respondents in the same way. The patterns were different for each ego state. This indicated that the

respondents perceived something different between the groups of photographs representing the three ego states.

The respondents indicated a positive feeling for the Adult ego state for the variable of learning but in comparing the photographs representing the Adult ego state, it was found that the respondents felt positively toward the photographs where the instructor was standing. Evidently, learners expect an instructor to stand.

The female respondents reacted slightly more favorably than the male respondents to the photographs representing the Child ego state and the other photographs where the instructor was smiling.

The respondents reacted more positively to the photographs in the Parent ego state that portrayed less sternness, superiority and threatening types of behaviors.

Variables

The strength of the ratings and the consistency of the ratings indicated that the respondents were interpreting the statement variables similarly and that they were reacting to the nonverbal behavioral factors shown in the photographs.

The respondents classified the variables of demanding performance, punishment, prejudice, manipulation, and domination into the Parent ego state. The Adult ego state

accounted for the variables of sympathy, communicates effectively, encouragement, competence, confidence, and learning. The respondents classified the variables of fun, enthusiasm, warmth and compliancy into the Child ego state. The profile for self-centered could not be classified because the Parent and Child ego states were rated equally positive and the Adult ego state was rated negative.

The classification of the variables was based on the quantitative ratings of the respondents. This was the first quantitative approach to determine the strength of feelings for placing a variable in a particular ego state.

Recommendations

The results indicate that further study should be made on the possible sex differences in the perception of ego states. An effort should also be made to determine the extent of the rating differences due to educational level.

As with any study, several things came to light during the course of the study that could be changed. The statement variables of manipulation, sympathy, compliancy, and prejudice could have been replaced because they had very weak profiles. The variables of confidence and competence could be replaced because they were not very discriminating but the reasons for that could be the definition of these terms, the number of photographs used to gather the data, or an

instructor can be competent or confident in any ego state.

The number of photographs should be increased and a balanced representation of the ego states should be maintained. In order to develop a more meaningful profile for the variables, the use of 30 or more photographs is recommended. The use of more photographs would also increase the reliability of ego state preferences. The balanced representation would allow for easier comparison between the ego states.

The photographs could be replaced with video tape segments. Rosenthal et al. (120) found respondents to be quite accurate down to one video tape frame or the equivalent of one photograph.

The rating scale was not a problem and the transformations of the data into normalized scores aided in the construction of the patterns and profiles and also contributed to the reliability of the study.

Another factor that should be considered is the context or situation. What would happen to the ratings if the situations were boss-subordinate or interviewer-interviewee?

The learning variable served its purpose but should be made up of several factors such as teacher effectiveness, support systems, sociological climate, autonomy in class, motivation, etc.

Further study should also be made regarding the

quantitative contribution of each of the statement variables to the learning environment.

It was found that rating all the photographs for a single variable and then repeating the photograph sequence for the second statement variable was much faster and the respondents were able to concentrate on the single variable much easier. The time constraint came from the method of recording the ratings and not from the length of time a photograph was shown.

SUMMARY

The primary purpose of this study was to determine the type of environment preferred by managers attending management development programs. The secondary purpose was to determine if the managers age, educational level or sex would affect the environmental preferences selected by the managers.

An instructor creates an environment through verbal and nonverbal communication factors. An instructor can also alter the environment he creates so as to maximize the amount of learning. Nonverbal behaviors were used as the basis for the photographs utilized in this study. The selection of the nonverbal behaviors was based on the research that has been conducted on nonverbal behaviors. Nonverbal behaviors are the carriers of the emotional part of any message. Noverbal behaviors tend to be believed over verbal communication. The study utilized nonverbals from the kinesic and oculesic areas. These include body position, gestures, posture, facial expression and the eyes.

A study of the literature indicated that Transactional Analysis was a viable theory. The concepts of structural analysis and stroking were used. Every interaction is considered a stroke or series of strokes. Structural analysis was the core of the study in that the photographs and the

statement variables were chosen because they could be associated with a particular ego state.

The study was planned around photographs representing the ego states. The photographs were judged by people with expertise in Transactional Analysis. Ten photographs were selected as representative of the ego states. The Parent and Child ego states were represented by four photographs and the Adult ego state was represented by two photographs.

Sixteen variables were chosen that could be associated with the ego states and also with the psychological and sociological environment. The variables were communicates effectively, encouragement, manipulation, domination, punishment, demands performance, self-centered, competent, sympathetic, fun, compliant, prejudice, warmth, enthusiasm, confidence, and learning.

A form was designed to gather the data. The rating scale was based on a range of numbers from one through 99 with 50 being the midpoint.

The hypotheses were concerned with age and educational level. The hypothesis dealing with age was not significant. This indicated that all the male respondents perceived the ego states in about the same way regardless of age.

The second hypothesis was concerned with educational level. Only one interaction turned out significant. A presentation of the data graphically revealed that the

respondents with a high school education or less tended toward more positive ratings than did the other two levels. The data also indicated that college graduates preferred both the standing and seated Adult ego state photographs. There were enough differences in the educational level to warrant further study of their perceptions of the ego states.

The comparison of males and females indicated that the females tended to prefer the Child ego state while the males preferred the Parent ego state as the second ego state. Both groups preferred the Adult ego state photographs. The males also tended to be more moderate in most of their ratings.

The male respondents indicated positive feelings for instructors who exhibit nonverbal behaviors indicating competence, confidence, encouragement, communicating effectively, sympathy, demanding performance, domination, punishment, and manipulation. The respondents with some college or technical education and the college graduates indicated the same positive feelings.

The respondents with a high school education or less indicated a positive feeling for the variables of competence, confidence, encouragement, communicating effectively, sympathy, fun, enthusiasm, warmth, and compliancy.

The results indicate that instructors should receive training in nonverbal communication and in Transactional Analysis. Ego states are associated with selected nonverbal behaviors and students did indicate positive feelings for the Adult ego state. Training in Transactional Analysis and in nonverbal communications would tend to increase an instructor's effectiveness in the classroom.

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APPENDIX A: PHOTOGRAPH CLASSIFICATION FORM

Tray_____

Photograph Classification

Directions: As each photograph is shown, place a check mark or an X in the appropriate space to indicate your classification of the photograph.

P= Parent Ego State A= Adult Ego State C= Child Ego State

Picture	P	A	C	Picture	P	A	C	Picture	P	A	C
1.				2.				3.			
4.				5.				6.			
7.				8.				9.			
10.				11.				12.			
13.				14.				15.			
16.				17.				18.			
19.				20.				21.			
22.				23.				24.			
25.				26.				27.			
28.				29.				30.			
31.				32.				33.			
34.				35.				36.			
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61.				62.				63.			
64.				65.				66.			
67.				68.				69.			
70.				71.				72.			
73.				74.				75.			
76.				77.				78.			
79.				80.							

APPENDIX B: REPRESENTATIVE CHI SQUARE TABLE

S T A T I S T I C A L A N A L Y S I S S Y S T E M

CHI-SQUARE TABLE FOR J15 VERSUS J6

J6

OBSERVED EXPECTED CELL CHI-SQUARE

J15	0	1	2	3	TOTALS
0	24.00 9.65 21.35	13.00 20.73 2.88	0.0 7.59 7.59	2.00 1.03 0.92	39.00 39.00 32.75
1	13.00 20.04 2.47	63.00 43.06 9.24	4.00 15.77 8.79	1.00 2.13 0.60	81.00 81.00 21.10
2	7.00 14.35 3.76	20.00 30.83 3.81	30.00 11.29 30.98	1.00 1.53 0.18	58.00 58.00 38.73
3	3.00 2.97 0.00	5.00 6.38 0.30	3.00 2.34 0.19	1.00 0.32 1.48	12.00 12.00 1.97
TOTALS	47.00 47.00 27.59	101.00 101.00 16.22	37.00 37.00 47.55	5.00 5.00 3.19	190.00 190.00 94.55

TOTAL CHI-SQUARE = 94.54717 WITH 9 D.F. PROB > CHISQ =0.0001

APPENDIX C: INSTRUCTIONAL PREFERENCES FORM

INSTRUCTIONAL PREFERENCES

NAME _____

TITLE _____

NAME OF COURSE _____

NATURE OF YOUR ORGANIZATION

INDUSTRIAL _____

HEALTH ORIENTED _____

INSURANCE _____

UTILITY _____

EDUCATIONAL _____

OTHER _____ SPECIFY _____

HOW OLD ARE YOU _____

MALE _____ FEMALE _____

YOUR EDUCATIONAL LEVEL

LESS THAN HIGH SCHOOL _____

HIGH SCHOOL _____

TRADE SCHOOL _____

SOME COLLEGE _____

B.S. _____

M.S. _____

Ph.D. _____

INSTRUCTIONAL PREFERENCES

NAME _____

TITLE _____

NAME OF COURSE _____

NATURE OF YOUR ORGANIZATION

INDUSTRIAL _____

HEALTH ORIENTED _____

INSURANCE _____

UTILITY _____

EDUCATIONAL _____

OTHER _____ SPECIFY _____

HOW OLD ARE YOU _____

MALE _____ FEMALE _____

YOUR EDUCATIONAL LEVEL

LESS THAN HIGH SCHOOL _____

HIGH SCHOOL _____

TRADE SCHOOL _____

SOME COLLEGE _____

B.S. _____

M.S. _____

Ph.D. _____

GENERAL INSTRUCTIONS:

You will be shown a series of slides, one at a time. Each slide will be of the same person. The person will be doing something different or be in a different situational setting. Please respond as if you were actually in the situation that is described below.

THE SITUATION:

You are in a classroom setting where you will be dealing with improving your proficiency in a skill directly related to your occupation. The photographs you will view are of your instructor. He has repeated the "pose" in the photograph quite frequently during the last two hours.

RATING INS

Using the en
as he appear
with the sta
statement. U
statement.

1

Strongly
Disagree

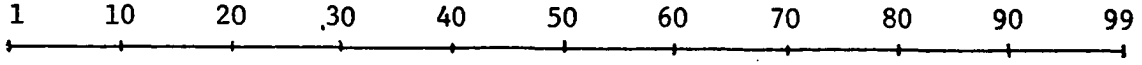
EXAMPLE: On
determine th
and then rec

Record your
are shown.
Work as qui

STATEMENTS		
	1	2
1. The instructor communicates effectively		
2. The instructor encourages students		
3. The instructor manipulates students		
4. The instructor dominates students		
5. The instructor punishes students		
6. The instructor demands performance		
7. The instructor is self-centered		
8. The instructor is competent		
9. The instructor is sympathetic		
10. The instructor is fun		
11. The instructor is compliant		
12. The instructor is prejudiced		
13. The instructor is warm		
14. The instructor is enthusiastic		
15. The instructor is confident		
16. I could learn from the instructor		

RATING INSTRUCTIONS:

Using the entire rating scale shown below, indicate your feelings toward the instr
as he appears in the photograph. Use the number 1 to indicate that you strongly di
with the statement. Use the number 99 to indicate that you strongly agree with the
statement. Use the number 50 to indicate that you neither agree nor disagree with
statement.



EXAMPLE: One of the statements might be "The instructor is fascinating." Using t
determine the degree (this might be 25 or 72) of your feelings of agreement or dis
and then record the number in the box.

Record your rating for each statement in the appropriate photograph column as the
are shown. Fill in each blank in the column with a number that indicates your feel
Work as quickly as you can using your initial reactions.

	PHOTOGRAPHS								
	1	2	3	4	5	6	7	8	9

TIONS:

rating scale shown below, indicate your feelings toward the instructor
the photograph. Use the number 1 to indicate that you strongly disagree
ıt. Use the number 99 to indicate that you strongly agree with the
ıe number 50 to indicate that you neither agree nor disagree with the

20	30	40	50	60	70	80	90	99
		Neither Agree nor Disagree						Strongly Agree

the statements might be "The instructor is fascinating." Using the scale,
gree (this might be 25 or 72) of your feelings of agreement or disagreement
the number in the box.

ng for each statement in the appropriate photograph column as the slides
in each blank in the column with a number that indicates your feelings.
as you can using your initial reactions.

PHOTOGRAPHS							
3	4	5	6	7	8	9	10