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**RELATIONSHIPS AMONG INTERPRETATIONS OF MODERN DANCE AND  
CULTURAL BACKGROUND**

*The University of North Carolina at Greensboro*

Ed.D. 1983

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RELATIONSHIPS AMONG INTERPRETATIONS OF MODERN  
DANCE AND CULTURAL BACKGROUND

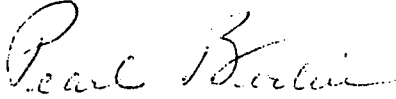
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APPROVAL PAGE

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The purpose of this study was to examine the perceptions of three different dance stimuli by three cultural groups. The semantic differential served as the technique for interpreting the perceptions of filmed presentations of three modern dances by a group of Africans, Americans and Asians. A review of literature focused on (a) communication in modern dance, (b) the communicative aspects of nonverbal behavior, (c) biological unity, and (d) the semantic differential technique as a measure of the affective domain.

The sample consisted of 124 volunteers recruited from the student body, faculty, staff, and community of the International School of Tanganyika during the first term of the 1981-82 academic year. The researcher collected the data during eight presentational sessions. The subjects completed a semantic differential response form after viewing each of the three films. The analysis of the data involved (a) computing Pearson correlations for the summary means for each film by cultural group as well as by the activity, evaluative and potency dimensions; (b) an analysis of variance among means for the activity, potency, and evaluative dimensions of the semantic differential; (c) post hoc Scheffé S tests where indicated; and (d) an analysis of covariance computed for the three semantic differential dimensions for age, sex, education, dance experience, and title. The D-statistic was also determined.

The data indicated that the factors which relate to individuals' perceptions of a modern dance are not easily explained by culture, sex, education, experience, or title. The Pearson correlations failed to suggest any particular pattern among the variables within each cultural group. Inspection of the means plotted as profiles revealed that the three cultural groups were not very different in their perceptions of the films. The computed D-statistic suggested the idea that the groups were more similar than different in their perceptions of the dances. However, analysis of the responses to film 1, the example of nonliteral modern dance, revealed that culture was a significant variable in the perception of the film. This finding underscored the realization that a critical element of the study was the specific stimulus to which subjects responded.

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CHAPTER I  
INTRODUCTION

Dance is the business of many people. There are choreographers, dancers, critics, theorists, teachers, historians, anthropologists, and audiences all existing in a symbiotic microcosm revolving around dance. Each proposes interpretations as to what dance is all about and attempts to answer questions related to the how and why of dance. Each influences the state of the art.

In all cultures there is dance. It is a universal phenomenon. Hanna (1979) states:

...a people's values, attitudes, and beliefs partially determine the conceptualization of dance as well as its physical production, style, structure, content and performance. (p. 3)

People have danced as a means of worship, as an offering to unseen forces, as a plea. Although associated with primitive societies, remnants of this behavior abound in ritualistic gestures much alive in the most sophisticated religions. In all cultures, people dance as recreation either alone or in groups, reveling in the joy of movement. Sometimes they become the spectators not the participants; they passively observe and are elated by the movements of others either by their virtuosity or by the intricate designs in space revealed through their movement.

Dance, stated Merriam (1972), is a human behavior that is common to all societies which helps us to increase our general understanding of human beings. Kealiinohomoku (1976) observed:

...dance is not a total reproduction of the holistic culture. Obviously, it selectively reveals the culture, with either a limited but accurate mirroring of the culture, or with such a heavy emphasis that the emphasis actually causes a distorted reflection. (p. 103)

By studying the dances of a society from an anthropological perspective, the culture may be characterized.

Dance also reveals characteristics of a culture because it is in itself the use of the human body as an instrument and movement as the medium. Movements have meaning when the viewer interprets them in light of previous experiences. Specific details are not communicated; rather a generalization, i.e., an image, idea, feeling, or even an emotion may be conveyed. The dance metaphor presents a message that is embodied in the sum of the parts, not by the isolated movements. Individual movements have no particular meaning, but the total form has the potential of being expressive, of transporting information from the artist to the viewer.

The act of communication requires an encoder (the individual with the idea) and a decoder (the receiver) who share a common coding system. The coding system is learned and mediated by common symbols (Smith, 1966). There are a number of possible modes of communication within the culture. In language, words and sentences, either written or spoken, are the symbols of the coding system.



Children are not born speaking a language; they have the potential of speech, but must learn the coding/language of their community before they can interact within the system. In addition to language, there is a nonverbal but vocal code that allows for communication by tones. A third means of communication is a nonvocal and non-verbal form which involves movement, gesture, and other actions and conduct. In dance, the message is the transformation of the choreographic idea into coded movement form that customarily is associated with learning. Communication through dance must be viewed in the most abstract of terms, not as a literal substitute for the verbal mode.

From a psychological perspective, the initial step in the process of communication is contingent on perception. The human body's eight sense organs register stimuli which the brain stores as information about the environs and the state of the organism. What is actually stored is the knowledge of objective observations and subjective experiences. When a stimulus is experienced, the identification and recognition of the stimulus involves:

...a series of associations which color and modify the meaning of the stimulating object based perhaps on the neuro-physiological trace in the brain activated by the stimulus. (Chennakesavan, 1966, p. 31)

Perception is "...the direct acquaintance with anything through the senses" (Weismann, 1981, p. 263). Rather than an act, perception may be considered as a process.

Learning associated with perception revolves around life experiences and interactions with others. For example, a circle may

have special religious connotations for one person, but none for another. The circle has religious significance as a function of the learning process. This process involves the transferring of information concerning values, beliefs, attitudes and behavior; it is the means of imprinting, whereby the individual acquires an identification with specific cultural constructs which are shared by members of a cultural group and unite the individuals into a distinct and identifiable entity.

The transmission of cultural information among members of a group is a communicative function. Chapple (1970) regarded culture "...as the totality of the learned environment within which a particular group of human beings adapt..." (p. 41). Every experience that a child has is shaped by his/her culture. The development of perception, memory and cognition reflect the patterns of communication, relationships and activities indulged in by the social group.

In modern dance, the potential for communication is inherent in what Langer (1957) labeled the significant form. This form is the sum of all of the parts of a dance which include rhythm, spatiality, and emotion (Turner, 1965). When Best (1974) stated that "communication (in dance) is a feeling of empathy caused by viewing the movement" (p. 14), he referred to the close, perhaps inseparable tie that exists between nonverbal behavior and dance. By means of inferences we are able to make some assumptions about the communicative process in dance. Psychologists allege that humans actively, though unconsciously, structure their visual world (Hall, 1966).

"The goal of perception seems to be achieve clarity of the percept... when ambiguous stimuli are presented, they are meaningfully interpreted..." (Chennakesavan, 1966, p. 23).

There is much still unknown or unclear about dance as communication. One frequently encounters contradictions in factual information as well as personal conviction in reviewing the literature. Rather than achieving a sense of satisfactory resolution, more questions surface. Is modern dance a culturally bound art form or does Eibl-Eibesfeldt's theory of biological unity suggest the possibility of communication across cultural barriers? Does the use of a title provide the viewer with a perceptual framework within which meaning is assigned and the dance experience interpreted? Do the variables of age, sex, education and experience in dance influence the interpretation or is cultural background the dominant variable? It was the intention of this research to explore some of these questions in order to begin to understand the complex interaction among culture, perception, and dance as communication. The writer acknowledges her perspective for the inquiry as that of a dancer and an educator. The study does not portend to be an aesthetic, anthropological or psychological investigation.

#### Statement of the Problem

The purpose of this study was to examine the perceptions of three modern dances by selected groups of individuals. The semantic differential served as the technique for interpreting viewers'

perceptions of filmed presentations of the dances. Groups of Africans, Americans, and Asians associated with the International School of Tanganyika, Ltd., served as subjects for the investigation. The research sought answers to the following questions:

1. How do the meanings perceived by the three cultural groups compare with respect to similarities and differences? How do age, sex, education, and experience affect perceived meaning? Does prior dance experience relate to perceived meaning of the dance stimuli?
2. Do members of the same cultural group share common perceptions of meaning when confronted with the same dance stimulus?
3. Does the use of a title, as a perceptual cue, affect the groups' perceptions?
4. Was any preference for one dance over another discernible when cultural group was considered?

#### Definition of Terms

The following definitions were adopted for interpretation in this study.

Choreographic style. "The movement structure that serves as a vehicle for the expression of feeling" (Turner, 1965, p. 93).

Communication. An individual's interpretations of the stimuli presented by the human body moving in time and space defined by the "...feelings, attitudes, images, relationships, shapes and forms..." encountered by the senses (Turner, 1971, p. 3).

Cultural group. "A community [which] shares a common cultural orientation and who exhibit characteristic behavior patterns and attitudes that are learned from other community members" (Chapple, 1970, p. 148).

Culture. "The complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" (Wallace, 1970, p. 6).

Interpretation. An individual's expressed conception of the meaning of a modern dance presentation.

Nonverbal behavior. Nonlanguage actions which might include: "(a) body motion or kinesic behavior: gestures and other body movements including facial expression, eye movement, and posture; (b) para-language...; (c) proxemics: use of "social personal space and man's perception of it" (Hall, 1966, p. 1); (d) olfaction; (e) skin sensitivity to touch and temperature; and (f) use of artifacts, such as dress and cosmetics" from which meaning is inferred by a receiver (decoder) without a shared code being established (Duncan, 1969, p. 118).

Perception. "The direct acquaintance with anything through the senses" (Weismann, 1970, p. 263).

Meaning. Meaning refers to a concept defined by points in semantic space as proposed by Osgood, Suci, and Tannenbaum (1957). All interpretations of meaning in the present study, therefore, are to be considered as connotational.

Modern dance. Movements structured in time and space and selected by a choreographer with the intention of evoking a meaningful connotation from the viewer.

#### Assumptions

The following ideas were accepted as "given" in this research and were not tested as a part of the study:

1. Connotational meaning is quantitatively measurable.
2. The semantic differential is a valid and reliable instrument for measuring meaning.
3. The dance presentations used as the perceptual stimuli have the potential of evoking a connotational meaning for the viewer.
4. The specific responses made by subjects are representative of affective connotations evoked by the dance presentation.

#### Limitations

Several factors are unique to this study which warrant identification. The International School of Tanganyika, Ltd., is a school that caters to members of the expatriate community of Dar es Salaam, who are in Tanzania either as business consultants or as members of development-planning teams. The student population is, therefore, very transient in nature. At least 25% of the student body changes during a given term. The data collected in the present study is descriptive of the population at a specific time only. It was not feasible to compare several samples because the population of

potential volunteers was exhausted. The limited number of expatriates willing to participate in the study who met the protocol explains the wide range of ages within each cultural group sample.

It was difficult and sometimes impossible to adhere to preferred research standards. For example, it was impossible to acquire equivalent numbers of volunteers in each group who were also similar in age and educational achievement. Moreover, the physical limitation of the availability of electricity to run the projector was an obstacle that also reduced the number of subjects involved in the study. Three response-collection sessions were cancelled when the power failed. Many of these volunteers did not return.

For the aforementioned reasons, some of the procedures are admittedly less rigorous than they might have been in a more hospitable environment. This project thus should be regarded as exploratory in nature. Variables were considered with respect to perceptions of dance among three cultural groups. The results are descriptive in nature and are not intended to support definitive claims from which causal inferences may be made.

#### Scope of the Study

The investigation was limited to the analysis of the responses of 124 subjects. Three filmed modern dances were viewed; reactions to the presentations were indicated on a semantic differential response form for each dance. Meaning as perceived by the group was connotational in nature and determined from the semantic differential.

The subjects were volunteer members of the International School of Tanganyika, Ltd., their immediate families, or the school faculty during the first term of the 1981-1982 academic year. All had identification with one of three cultural groups: (a) African, (b) American, or (c) Asian (Indian). These individuals represented three geographically separated cultural groups congregated in Tanzania, East Africa. Effects associated with socioeconomic background prohibit the generalization of findings to any other population.



CHAPTER II  
REVIEW OF SELECTED LITERATURE

Numerous areas of the literature provide background information related to dance as communication. After an extensive review, four aspects were identified as particularly important to the present study. These are categorized in the text as (a) dance as communication, (b) the communicative aspects of nonverbal behavior, (c) biological unity as one explanation of cross-cultural meaning and (d) the use of the semantic differential to measure the affective domain.

Dance as Communication

The concept of modern dance as a means of communication appears repeatedly in dance literature. Ruth St. Denis (Brown, 1979) stated that dance provided a "...means of communication between soul and soul-to expressing what is too deep, too fine for words" (p. 22). Humphrey (Ellfeldt, 1976) stated, "The dancer is born with, or cultivates an overwhelming desire to dance and to communicate his findings about life in this medium" (p. 57). From the critic Sorell (1980), "We are carried away by dancing because it does and means something to us, to our senses, to the sum total of our being. In other words, stage dance will always be communication through visual stimulation" (p. 13).

It is the use of the word communication that is the source of confusion. Mechanistically speaking, communication implies the

transference of specific information using symbols as the medium. Most often, communication is used by the dance discipline in a more connotative vein. What is communicated is far more elusive than a symbol such as "ball" can convey. The dance artist is concerned with the feeling quality that the symbols convey, not with delineation. Graham (Brown, 1979) clarified the use of the word communication in the context of dance with the statement, "By communication is not meant to tell a story or to project an idea, but to communicate experience by means of action and perceived by action" (p. 50). Langer (1957) also addressed the issue. She observed, "The important fact is that what language does not readily do--present the nature and patterns of sensitive and emotional life--is done by the works of art" (p. 8).

Art in general as defined by Tolstoy (in Beardsley, 1966) is "a human activity...[wherein] one man consciously, by means of certain external signs, hands on to others feelings he has lived through, [whereupon] others are infected by these feelings and also experience them" (p. 123). Thus, art is an indirect rather than a direct means of communication. The choreographer selects movements and orders them in time and space with the intention of arousing the viewer. The choreographer is the encoder, the viewer is the decoder, and the dance embodies the message to be transferred. The dance is an expressive, connotative symbol rather than a denotive one.

There are few empirical investigations of the role of communication in dance. An early study was initiated by Turner (1963),

"A Study of Modern Dance in Relation to Communication, Choreographic Structure, and Elements of Composition." She attempted to establish the effectiveness of modern dance as communication. Utilizing an experienced modern dance class, members were asked to choreograph three solo dance studies. One was to convey pride, one to express an emotional quality, and one to express a physical quality. Five qualified jurors viewed looped films of the students' choreography. The results indicated that emotional and physical qualities presented in abstract form were recognizable. Traditional dance elements such as unity, variety, contrast, repetition, transition, climax, balance, sequence, and harmony are not necessary for effective communication in modern dance. There was some support for the hypothesis that literal modern dance was more recognizable than abstract modern dance.

Turner (1965) later attempted to analyze the nature of nonliteral modern dance as conceived and executed by Alwin Nikolais. After studying Nikolais' professional training class and observing the company's performances, live and filmed, for one year, Turner defined the product, process, and factors of choreography inherent in the work of Nikolais as it had evolved over 13 years. Turner determined that nonliteral modern dance can not be described by story line, "...dramatic development, or logic based on intellectual order" (p. 87). The end product or dance is not subject to analytical sectioning. Motion is the primary focus of the resultant form that is enhanced by costumes, lights, and sound. The major elements

categorized by Turner were content, form, and technique. The functions of communication, Turner stated, were achieved by the integration of the psychic, physical, and spatial factors of the movement. Turner also stressed the necessity of being an intelligent spectator by attending to the unique view of nonliteral modern dance.

Hays (1967) considered the effect of tempo changes on motion and the resulting communication evoked by the movement sequence. Subjects viewed the same filmed movement sequence performed to three different tempos. The results supported the supposition that the connotation of movement can be altered by the tempo of the performance. Hays also suggested that although most subjects perceived a synonymous emotional response to a specific movement sequence, there was a wide variation of associations due to personal tempo and personal associations. Certain emotions seemed to be limited to one specific tempo while others were effectively expressed at a variety of tempos.

Arnheim (1960) reported a poorly documented study by Binney at Sarah Lawrence College. Five students improvised movements to three topic ideas. The intent was to communicate the ideas of (a) sadness, (b) strength, and (c) night. The compositions were compared by speed, range of movement, shape, tension, direction, and center. The analysis of the data was presented in a very abbreviated form and no conclusions were presented. Arnheim stated that when improvising "strength," the five choreographers were very similar in the movement selected to communicate the idea. The movements used were large and sweeping in range. The shape was very straight and there was a great deal of

tension. The direction of the movements was precise, sharp, and mostly forward. The one area of disagreement among the choreographers was on the speed of movement which demonstrated that a wide range of personal interpretation existed for this component. For the topics of sadness and night, there was an even wider range of interpretations.

Allen (1967) considered responses to abstract movement patterns represented in visual forms. Colored transparencies of movement patterns were abstracted by the use of time photography. Subjects viewed the visual forms and provided verbal responses indicating their interpretation of the transparency. The responses were analysed in respect to form, idea, and feeling, which were three levels of meaning established by Allen. The results indicated that appreciation was related to verbal fluency, but the conclusions were clouded by an unanticipated response to the color of the transparencies.

The reported studies indicate that there is some degree of agreement in the literature as to what is communicated through dance. Brown (1979) stated, "The aesthetics of modern dance lies in the integration of movement and meaning through three-dimensional kinetic design..." (p. viii). Turner (1971) explained, "As a nonverbal medium, dance concerns itself not with thoughts or ideas, but with feelings, attitudes, images, relationships, shapes, and forms that can be communicated directly through the senses" (p. 3). According to Best (1974), dance expresses an abstract form of feeling and through

the dance "...people observe the external action or work of art and infer from that to inner emotional state that caused it" (p. 3).

#### The Communicative Aspects of Nonverbal Behavior

Movement as a modality of communication is well documented in many different disciplines. James (in Bernstein, 1975) considered the possibility that posture was an externalization of an internal emotional state. He hypothesized that personal attitude is directly observable through the posture. Todd (1937) also observed that individuals sit and walk in motor patterns that are reflective of how the individuals perceive their status in life. Reich (1949), Feldenkrais (1972), Fisher (1973), and Lowen (1971) each presented their individual interpretation of how the human body in motion conveys the emotional state of the individual. These books represent a popular awareness of the communicative potential of movement.

The idea of movement communication is also related to the idea of communicative space. Hall (1959, 1966) determined that Americans position themselves at four distinctly different intervals to conduct personal communication. Hall stated that at each position or distance there was a potentially different form of interpersonal communication indicated. The first position was for intimate conversation, while the second was for personal (friendly) conversation. The next two positions, the less personal, were social and public distances. Chapple (1970) proposed that spatial relations such as Hall's communicative space are learned as a function of cultural behavior.

Gestures are abundant in every society. Birdwhistell (1963, 1970) studied this form of nonverbal behavior extensively and developed "kinesics," one of several means of recording and classifying movement for study. From his investigation, Birdwhistell (1963) concluded that an integral relationship exists between gestures and language structure. Scheflen (1973) reiterated this idea with the statement, "...the movement of the body helps in the clarification of meaning by supplementing certain features of the structure of language" (p. 9).

Scheflen (1972) proposed that a gesture "...replicates or mimics an idea being verbalized" (p. 40). Humphrey (1959) also proposed a similar observation from the dancer's view:

...gestures are patterns of movement established by long usage among men, a sort of language of communication or function which has been going on since the beginning of time, and which is most useful because it is so recognizable.  
(p. 114)

Research from the discipline of psychology which focused on body movement provided the dance scholar with some informative, insightful findings. Woodall and Burgoon (1981) indicated that when verbal messages are synchronized with kinesic cues, the message is recalled more easily than messages received without cues. Riseborough (1981), in examining the various facets of communication, concluded that physiographic gestures facilitate the decoding of a message. Subjects viewing the total body of the encoder while receiving the verbal message had an improved performance on an object identification test. After conducting three separate

experiments, Riseborough proposed that the more difficult the identification task, the greater the facility of physiographic gestures. The gestures appear to aid memory at the input stage rather than the retrieval stage and may serve to evoke mental images for the decoder.

Dittman, Paloff, and Bommer (1965) studied the use of visual cues in identifying mood. Two groups, psychotherapists and professional dancers, viewed films of patients and judged their mood from body cues selected by the viewer. The results suggested that although both groups were accurate in their interpretation, dancers were more attentive to the whole body cue. The results support the idea that dancers are keen observers, especially that they are sensitive to the emotional connotations of movement.

Ekman (1965) conducted a series of ten experiments in which judgements were made about photos of individuals being interviewed. The photos were presented either in sequence or alone. The conclusions were that judges respond systematically to nonverbal cues and that most nonverbal behavior is consistently communicative. As a culmination to the series of experiments, Ekman states, "...knowledge of the situation within which nonverbal behavior is emitted can greatly expand the interpretations of nonverbal cues" (p. 427).

Ekman and Friesen (1967) investigated the kinds of information conveyed by nonverbal behaviors. They restricted the study to body movements and did not include other vocal but nonverbal modes, nor did they include proxemics, olfaction, or artifacts which are other



categories of nonverbal behavior. They determined that body motion provides cues as to the nature of an emotion. After a number of studies, they identified relevant cues as (a) body acts, (b) body positions, (c) facial expression, and (d) head orientation.

Fujita, Harper and Wiens (1980) concentrated their efforts on testing the notion that females are more accurate than males in interpreting the affective displays of others. Acknowledging that some individuals are acutely sensitive, they found a marked variance among members of both sexes. There were correlations between female ability to encode (display) the emotions of happiness, sadness, surprise, and disgust and their ability to decode the behavior displayed by others. No correlation appeared for the same behavior in men.

Bateson (1955) stated that movements help to clarify the meaning of and supplement language structures. Expanding this research, Scheflen (1973) proposed that so called "metacommunication" is accomplished when the encoder utilizes body motion during delivery of the message. Scheflen explained how metacommunication functions:

1. Movements of the head, eyes, arms, and torso punctuate or mark the stream of speech, address speech to various listeners, and in general delineate the segments and phrases of human interaction.
2. Gestures (including facial displays) supplement the information content of speech by depicting sizes, shapes and relations which are being represented in words.
3. Kinesic behaviors can qualify or give instructions about verbal statements. (p. 11)

The ability of nonverbal behavior to convey a decodable message is supported extensively in psychology literature. Scheflen (1972),

Ekman (1965), and Ekman and Friesen (1971) have concentrated their efforts on documenting the forms of nonverbal behavior that can be accurately decoded. Birdwhistell (1967, 1970) studied movement extensively and developed an intricate system for recording nonverbal behavior. It is a plausible hypothesis that nonverbal movements are a means of communication by deductive inference and that movements are interpreted within a frame of reference that is dictated by learned cultural standards.

#### Biologic Unity

Another avenue of nonverbal behavior investigation that has proven to be both intriguing and controversial is the question of biologic unity. The concept has considerable appeal to the writer. Darwin (1872) originally proposed the concept which suggests that variations in species are the result of adaptation to the needs of the environment. Chapple (1970) stated that cultural phenomena are not deterministic in the biologic sense, but are probabilistic in nature. He further stated that there are a number of fixed action patterns which coordinate motor actions which do not have to be learned and may be modified by feedback. Chapple excluded reflexes from this consideration.

The well-known psychologist Watson, a so-called champion of learning as a basic process in life, rejected Darwin's theory that inheritance plays a major role in motor patterns. His strong opposition, Ekman (1973) concluded, is one of the reasons that Darwin's

original book, The Expression of the Emotions in Man and Other Animals, had little influence in later academic considerations. Ghiselin (1969) speculated that Watson's professional stand was influenced by his own prejudice toward the idea of human equality. Watson preferred the explanation of environmental factors rather than heredity to explain individual outcomes in human behavior.

In the mid 1960s, psychologists began structuring experiments to determine the validity of Darwin's conclusions. Ekman (1973) repeated the study design in which Darwin electrically stimulated facial muscles which produced recognizable facial expressions associated with emotions and concurred with the previous findings. Izard (1971) concluded "...'facial patterning' or facial expressions are not merely results of subjective experience; it is neuromuscular activity that constitutes a component of emotion" (p. vi). Izard also strongly supported the existence of duplicated expressions associated with the same emotions on every continent and in isolated, preliterate cultures.

Ekman, Sorenson, and Friesen (1969) reported evidence of pan-cultural facial displays of affect in studies conducted in New Guinea, Borneo, the United States, Brazil and Japan. The subjects were shown standard sets of photographs which were free of cultural differences such as learned evokers and display rules. Each photograph was selected because it showed only one effect. Each observer selected a word from a list of six affects. The list was translated into local language. There was marked agreement and accuracy of recognition

in all groups; although the agreements among preliterate cultures were statistically lower, they were consistent with the more literate groups. Similarities were recorded for happiness, anger, and fear in all groups.

Eibl-Eibesfeldt (1976) addressed the issue of cultural diversity versus biological unity through an examination of mankind's expressive behavior. He proposed that the physiologic behavior may be present although the cultural function of the behavior may vary slightly. He rejected La Barres' (1947) hypothesis that "...no natural language of emotional gesture exists..." (p. 55) with the statement that no data document the anecdotal remarks which represent subjective impressions. He also rejected Birdwhistell's (1963, 1967) generalizations as having no empirical evidence. Eibl-Eibesfeldt (1974) documented facial displays in congenitally blind and deaf children for the emotions of anger and fear. Similar observations had been reported by Goodenough (1932), Thompson (1941), and Fulcher (1942). Eibl-Eibesfeldt also reported smiling, crying, and laughing behaviors in the children. Children blushed when they received compliments and hid their face when embarrassed. Blushing is one of the emotional displays that originally intrigued Darwin.

Eibl-Eibesfeldt (1975) also discussed a number of motor patterns that occurred in the same context. Films of social interactions were taken without the subjects' knowledge in many cultures over a ten-year period. Later these were analyzed and revealed the following: the shaking of the head to indicate "no" frequently occurred; a

facial display involving the raising of the eyebrows followed or preceded by a smile indicated a greeting; the lowering of the eyes and turning away of the head was a gesture of coyness that was also documented.

Although the body of data to support biologic unity is sparse, it is compelling. Eibl-Eibesfeldt (1975) has provided thorough documentation of the existence of similar motor patterns in numerous cross-cultural settings. The work of Edman (1965, 1973), Friesen (1971), Izard (1971, 1977), and Eibl-Eibesfeldt (1975) provide strong support for the hypothesis.

The Semantic Differential Technique: A Measure  
of the Affective Domain

The semantic differential technique was developed in response to the need to quantitatively measure meaning. Osgood, Suci, and Tannenbaum (1957) were acutely aware of the difficulty inherent in any attempt to objectively assess a concept so subjective as meaning. Historically, others in the field of psychology had avoided the measurement of meaning simply because it had been considered an unmeasurable quantity.

Observing that the "...affective reactions people make to symbols or events are important determiners of their overt behaviors with respect to these symbols and events..." (p. 171), Osgood (1964) approached the measurement of meaning. Emotive or effective signs are utilized instead of denotative or descriptive ones making the

measurement of meaning an invaluable tool in research on attitudes, personality, communication, and clinical psychology.

Osgood, May, & Miron (1975) further refined the semantic differential technique and validated its use as an instrument for cross-cultural studies. Early in the development of the technique, Osgood expressed concern that semantic frames of reference differed from culture to culture, but Kumata and Schramm (1956) were unable to demonstrate that idea. Osgood (1964) later developed word lists tested at 16 sites using 16 languages. By factor analysis, he demonstrated that there was empirical support for the existence of an equivalent adjective in all of the languages considered. Osgood (1964) reported that continuing research had "...provided evidence for a universal framework underlying certain affective or connotative aspects of language" (p. 171).

Snider and Osgood (1962) stated:

The phenomena which seem to display generality across human groups regardless of language or culture are essentially connotative---the affective "feeling tones" of meaning which contribute to synesthesia, metaphor and the like. The phenomena which display dependence upon the structure and lexical categorizing of language seems to be essentially denotative.... (p. 538)

Osgood et al (1957), using the semantic differential, studied the effects of color on the meaning of objects sculptured in an abstract style. The color of the object was varied, and the object was rated after each color change. The authors determined that the color of the object interacted with the nature of the object and influenced the meaning assigned by the viewer. Colors which moved

toward the red spectrum were judged as passive. The more intense the color the more potent the judgement. Regardless of the object, the judgement reflected the color association.

Tannenbaum (1956) made use of the semantic differential technique to determine the effects of background music on a dramatic presentation. Three versions of a single play were presented to six groups. The first version was performed live on stage; the second version was filmed for television using special camera effects. A final version was filmed from the audience during the staged version presentation, but used no camera effects. A musical score was added to each of these to complete the six versions. Each group viewed one form of the play and, using the semantic differential technique, rated the production. It was determined that the musical score had negligible effect on the viewers' perceptions.

Tucker (1955) wished to identify the major factors or "dimensions" of aesthetic meaning. Using paintings which included seven in representational and four in nonrepresentation style, 33 nonartists and 10 artists made judgements on each example after viewing it for one minute. The results suggested that artists have a specific frame of reference for their judgements while nonartists demonstrated little structure in their judgements.

Berlyne, Robbins and Thompson (1974) compared the aesthetic appreciation of Ugandan and Canadian subjects. The subjects viewed 16 pairs of patterns and data were collected on (a) looking time, recorded to the nearest second, (b) attractiveness, "which do you

find the most attractive?", (c) 7 bipolar adjectival scales, the semantic differential technique, and (d) paired comparisons of pleasantness, "Which pleases you more?" The bipolar scales used were translated into the Luganda, the Ugandan language. There were close correlation coefficients on all but the "exciting" and "good" scales. When considering all the components of the experiment, the authors found more similarities than differences between the Uganda and the Canadian subjects in their aesthetic appreciation of visual patterns.

Considering the purpose of the current study, the semantic differential technique was considered to be an appropriate tool for the measurement of meaning. It was not necessary to establish the validity of the technique for the measurement of connotative meaning since such validity has been established with repeated studies. The cross-cultural documentation is not relevant since the current study was conducted in English and involved only subjects fluent in English. The result obtained by the technique allows for comparison among interpretations of cultural groups in an objective and quantitative manner. It avoids the complication of comparing denotive meanings that are frequently elusive and not necessarily accurate descriptions of what actual meaning is assigned by individuals.



## CHAPTER III

### PROCEDURES

The specific steps pursued in the conduct of this study are explained in this chapter. Procedures include the development of a semantic differential scale, the selection of films to serve as the stimuli, the identification of the sample, the collection of the data, the preparation of the data for analysis, and analytic techniques. Each procedure is described and the rationale for the adoption of the procedure explained.

#### Development of the Instrument

The steps followed in development of the specific semantic differential form used in this study included the identification of relevant concepts and the selection of appropriate bipolar words. Both of these procedures were followed in accord with the work of Osgood and his associates.

#### Concept selection

The semantic differential technique essentially involves a stimulus-response format. The descriptor that appears at the top of each rating sheet serves, in effect, as the stimulus. Weighing the stimulus, the subject reports how a group of preselected adjectives are associated with the idea under consideration. Meaning is thereby

assigned to each stimulus by the subject's responses. Thus, adjectives provide the defining characteristics perceived by subjects.

The adjectives represent one of three factors of semantic space: evaluative, potency, and activity. The evaluative factor by content involves judgements, rewards, attitudes, and punishment, i.e., good-bad, beautiful-ugly, happy-sad. The potency factor by nature addresses power, size, weight and touch, i.e., large-small, heavy-light, thick-thin. The activity factor has a dual nature with some judgement and some relation to physical characteristics, i.e., excitable-calm, hot-cold, important-unimportant (Osgood, Suci, and Tannenbaum, 1957, pp. 33-63).

In the semantic differential, the subject under investigation is identified as a concept which may be a word, phrase, or an object according to Osgood et al. (1957, p. 77). The number of concepts utilized is dictated by the nature of the inquiry. There is also considerable variance in the number of bipolar adjectives selected from each of the three factor categories.

Tannenbaum (1956) made use of the semantic differential in a comparison of artist and nonartist perceptions. The paintings served as the concept rated by each subject. A similar design was chosen for this study. Filmed dances served as the concepts to be rated. On each response form, one of two stimuli appeared: (a) a short descriptive phrase, or (b) the title of the dance. On an alternating presentation basis, one group of subjects received the first form while the next received the second form.

As a result of her interest in the choreographic philosophy of Nikolais, Turner (1965) differentiated modern dance into two choreographic schools: literal and nonliteral. Literal dance was considered synonymous with traditional modern dance and defined by its dramatic idea, story, or its "...movements developed to adorn or enhance the body and emphasize the human personality" (p. 94). Nonliteral dance was described as "...without literal reference to the source of the idea; non-representation dance" (p. 94). Examples of both choreographic approaches in the stimulus-response situation were, therefore, included in the present study.

The investigator arbitrarily decided to present three different dance selections as the stimuli. A solo dance, a duet, and a group dance were used in the research because they represented examples of presentational forms in modern dance theatre. Films of public television productions distributed by the Indiana University Audiovisual Center were selected. The films are two of a series produced in the format of lecture-demonstration in which Martha Meyer, dance educator, discussed some aspects of dance with renowned American choreographers who then presented selections of their work to elucidate the material.

The following criteria weighed in the selection of the dances:

- (a) dances would be of relatively short duration, intentionally choreographed to stand independently;
- (b) dances would be performed in costume;
- (c) a dialogue with the choreographer would be included, separate from the dances, which would discuss the style of choreography, the artist's philosophy of movement as a medium of

expression, and the title that the choreographer selected for the dance; and (d) a minimum of special camera effects would be used.

Although the filming of dances denies the audience some of the sensory stimuli associated with theatre performance, it is a consistent means of presenting a dance in a research setting. Color films would have been desirable, but it was not possible to acquire films which met the other criteria and were devoid of camera effects. Such special effects alter the presentational form and, in effect, create a new multi-media form.

The first film, Invention in Dance, presents an interview with Alwin Nikolais in which he discussed modern dance as a means of communication. He stated that his intention was to convey meaning through the elements of form, shapes in motion, and sound rather than references to conventional ideas. Two dances from this film were selected to serve as stimuli. "Disc" is a group dance. The sex of the dancers is incidental. All of the dancers appear non-human in their unisex costumes which includes a large disc attached to one foot. The music is modern and percussive, reflecting the quality of the dance. The second dance was also choreographed by Nikolais. It is danced by a single male dancer. "Fixation," as described by the choreographer, is a study in kinetic or psychic energy. In contrast to "Disc," the dancer is quite human looking. Although the music is modern, it is supportive of the visual theme of the dance. The rhythm reiterates the title of the dance.

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The third dance which served a stimulus function was choreographed by John Butler. It appeared in the film, A Choreographer at Work. "First Love," the title supplied by the choreographer, is described by Butler as a "tortured duet" which represented his interest in exploring the relationship that exists between two people. Butler stated that his intention was to evoke feelings by the movements chosen. The movements were not meant to be taken literally or representatively, but interpreted as a part of an implied relationship. The music is melodic, sensuous, and joins the dancers in an intimate encounter. In the data collection situation, the subjects saw only film footage of the stimulus dance. The interview with the choreographer was not included. Viewing times for each dance were : (a) "Disc," 6 minutes; (b) "First Love," 3 minutes; and (c) "Fixation," 4 minutes.

#### Scale Selection

Osgood et al. (1957) presented criteria for the selection of scales for the semantic differential: (a) scales or bipolar adjectives should represent each of three factors that define semantic space, i.e. evaluative, activity, and potency factors; (b) the scales should be relevant to the concept because irrelevant scales usually result in neutral judgements which have little value; (c) there should be an attempt to guarantee semantic stability; possible ambiguity must be considered in the selection of word-pairs.

In order both to satisfy the criterion of relevance to the concept and to ascertain that the words were familiar to the test group, the following procedure was undertaken:

1. A group of students of cultural background similar to the proposed sample viewed the dance film, There is a Time, by José Limon.
2. During a second viewing, the group members were asked to record any word, phrase, or sentence that came to mind while watching the film again. The viewers were encouraged to list as many responses as they wished.
3. The responses were analyzed. Those with the highest frequency were checked against Osgood's factor-loading scales in the Measurement of Meaning (Osgood, Suci, & Tannenbaum, 1957).
4. Terms with a factor loading of less than 0.50 were discarded.
5. Five adjectival pairs for each of the three factors of semantic space were selected for use in the study. The factor loading for the 15 scales, as identified by Osgood et al., (1967, pp. 31-75) are indicated below:

<u>Activity</u>		<u>Potency</u>	
active-passive	0.98	hard-soft	0.97
emotional-rational	0.67	masculine-feminine	0.76
excitable-calm	0.61	serious-humorous	0.97
fast-slow	0.70	strong-weak	0.81
vibrant-still	0.91	violent-gentle	0.69

<u>Evaluative</u>	
beautiful-ugly	0.52
controlled-accidental	0.80
good-bad	1.00
obvious-subtle	0.80
smooth-rough	0.83

Once the bipolar terms were determined, it was necessary to assemble them into a response form. A descriptive phrase was selected for each dance to assist in recall of the stimulus film. This phrase was used for half of the presentations, and the title given by the choreographer was used for the other half. The phrase stimuli were (a) group dance, (b) male and female dancers, and (c) male dancer. The title stimuli were (a) "Disc," (b) "First Love," and (c) "Fixation."

The order of the scales on the response sheet was determined through randomization, as was the arrangement of polarity direction for each word pair. Seven spaces between each set of bipolar words were the number of choices recommended by Osgood et al. (1957, p. 85) and explained thus:

Polar term X  $\frac{\quad}{1}$ :  $\frac{\quad}{2}$ :  $\frac{\quad}{3}$ :  $\frac{\quad}{4}$ :  $\frac{\quad}{5}$ :  $\frac{\quad}{6}$ :  $\frac{\quad}{7}$ : Polar term Y

1 extremely like X

5 slightly like Y

2 quite like X

6 quite like Y

3 slightly like X

7 extremely like Y

4 neither X or Y or

equally like X and Y

Refer to Appendix A for the semantic differential used in this study.



### Selection of the Sample

The population of the International School of Tanganyika, Ltd. (IST) is a unique assembly of 52 different nationalities united by a common instructional language, English. IST is an expatriate school serving the diplomatic and private-business sectors from countries and companies providing financial or technical aid to Tanzania.

Asians from India comprise the largest number of students. African representation includes students from Zambia, Zimbabwe, Kenya, Somalia, Libya, and Nigeria. The student body at the time of data collection included only a few American children at the secondary campus, but the staff was well represented by Americans. IST personnel were selected for conducting the study because (a) the three groups identified represented a large pool of potential volunteers, (b) the cultural background of each group was distinctly different, (c) there is clear geographic separation among the home countries of the groups, and (d) the standard of administrative feasibility was established.

The study design called for volunteers from the student body, staff, and parents of students to take part in the research. Ultimately, the group studied comprised 124 subjects. The data were collected during the first term of the 1981-82 academic year which began in September and closed in December, 1981.

The following criteria were established for the subject selection:

1. Membership in one of three cultural groups:
  - (a) African, (b) American, (c) Asian.
2. Fluency in English as a written and spoken language.
3. Residency in the home country for at least five years.
4. A chronological age of 12 years or more.

Volunteers who did not meet all of these criteria were excluded from the study.

Membership in one of the three cultural groups was established by self-selection. A fourth category, "Other," was provided to serve as an alternative to the three specified groups. It was important to the integrity of the research that the subjects have a strong personal identification with their own cultural heritage. The children of each group attended weekly national history classes. Social clubs exclusive to the members of each of the groups also existed in the community.

Fluency in English is a requirement for admission into IST. Any student whose work indicates a deficiency is assigned to additional remedial classes in English as a Second Language (ESL). ESL students were not included in the sample. The staff of the school speak and write English as required by their job description. The only parents who volunteered to serve as subjects were Americans. Compliance with criteria 3 and 4, discussed above, was established using demographic data provided by each subject as a part of the data collection procedure. Those without five years' residency or who were less than 12 years of age were excluded.

The subjects provided the researcher with information concerning the kinds of dance that they had studied, the length of study, and their age at the time of study. They also listed the frequency and the kinds of dance performances that they attended. From these, the researcher assigned the subjects to a dance experience category. See Appendix A for the form used in obtaining background information about the subjects.

#### Collection of the Data

All 321 members of the IST secondary physical education classes participated in the data collection on November 18 and November 19, 1981. In addition, 17 staff members from the upper-school campus also completed the semantic differential form during five showings of the films. Three more presentations were made on December 7 and December 15 at the primary-school campus for the staff and parents who agreed to participate. The total number of showings was eight. The researcher assumed responsibility for all of the data collection sessions.

From a total of 389 candidates, 124 met the sample criteria of (a) cultural identification, (b) language competency, (c) residency, and (d) age. Thus, 124 individuals constituted the study sample.

The films were shown in alternating order. At each successive showing, a title was provided for each film on the response sheet. The others had no title. Turner (1965, p. 88) stated that titles

"...represent a point of departure..." for the viewer. The researcher wished to discover whether the use of a title provided a framework within which the subjects' perceptions were guided in a particular direction. This procedure was included to ascertain the relationship between perceptions and prior learning (Bourne, Dominowski, & Loftus, 1979, p. 167). The literature indicates that memory search is completed from pertinent cues. If the title does serve as a point of departure for the viewer, it would seem that the perceptions of subjects who saw the films accompanied by titles would demonstrate more congruity in their responses.

Titles utilized in the study were those designated by the choreographers. If the subjects were to respond with a title, the title appeared in the box at the top of the response sheet; if not, the box contained the descriptive phrase indicated above.

During each presentation of the stimulus films, the following procedures were followed:

1. Subjects were seated and provided with the test booklet, pencil, instruction sheet, and informed consent form. (See Appendix A.)
2. An explanation of the purpose of the test was made.
3. Instructions were read aloud and questions answered.
4. A film was viewed, lights turned on, and corresponding response sheets marked. This was repeated three times at each showing.

Each subject selected the data collection session of his/her own choice. Therefore, the size of each group varied. This procedure added to the alternating use of title confounded the interpretation of the data. This was particularly the case with question three: Does the use of a title, as a perceptual cue, affect the groups' perceptions?

#### Preparation of Data for Analysis

The preparation of the data for analysis included the following steps: (a) individual response forms were assigned an identification number, (b) subjects were assigned to the designated cultural group, (c) the demographic data on each form were reviewed and appropriate classifications for sex, age, education, and dance experience were assigned, (d) the use of a title or no title was noted, and (e) the numerical value indicated on each scale was tallied on a master response sheet.

The number assigned to subjects served as a means of tabulation for the computer only. No analysis by individual was conducted. The three cultural groups were assigned the numerical designations of 1 for African, 2 for American, and 3 for Asian. Any subject who selected the "other" category was eliminated from the study.

Each subject completed a demographic data sheet prior to viewing the films. This information was transferred to a master sheet as follows:

1. Sex - 1 for female or 2 for male.
2. Age - 1 for 12-19 years, 2 for 20-29 years, 3 for 30-39 years, 4 for 40-49 years, 5 for 50-59 years, and 6 for 60-69 years.
3. Education - 1 for completed primary school, 2 for completed secondary school, 3 for attended college, 4 for completed college, and 5 for attended university.
4. Dance experience - 1 for no experience, 2 for some experience, and 3 for experienced.

The title/no title variable was coded as 1 for title and 2 for no title.

The seven spaces between each bipolar word pair were assigned numerical values from 1 to 7. A 7 value indicated the positive end of the scale and a 1 the negative. The value 4 represented a neutral response. Values for the 15 scales completed for each of the three films were summated and a mean for each cultural group was derived for the five evaluative scales, the five potency scales, and the five activity scales. A mean for all fifteen scales for each of the three films was also computed for each cultural group.

#### Plans for Analysis

The analysis of the data was planned to provide information about the similarities and differences in the meanings of modern dances as perceived by the three cultural groups. It was intended that age, sex, education, and dance experience would be considered as factors relating to the perceived meanings. In addition, the researcher wished to consider the relationship between meaning perceived without knowledge of a title. Whether or not a preference

for any one of the three stimulus dances was evident for each cultural group was also to be determined.

The specific analysis for each framing question was planned as follows:

1. How do the meanings perceived by the three cultural groups compare with respect to similarities and differences? An answer was determined by using an analysis of variance technique among means for the evaluative, activity, and potency dimensions as well as a total for each cultural group on each separate film. Because the activity and potency dimensions of Stimulus Film 1 demonstrated marked differences of perceptions among the groups, a Scheffé S test was conducted to determine exactly where the significant difference occurred. A level of  $p$  0.05 was specified for acceptance as significant. Kerlinger (1973) stated that if concepts are alike in meaning they are also close together in semantic space. The D-statistic was used to measure the distance between two concepts and was defined by Kerlinger (1973) as:

$$D_{ij} = \sqrt{d_{ij}^2}$$

Where D is the linear distance between any two concepts, i and j, and d is the algebraic difference between the coordinates of i and j on the same factor (Evaluative, Potency, or Activity. (p. 574)

This analysis was computed for each of the three stimuli films by cultural group. A correlation coefficient was calculated to determine the correlation between the semantic space of each stimulus film. The correlation coefficient was computed with the formula:

$$r = \frac{S_{xy}}{\sqrt{S_{xx} - S_{yy}}}$$

In addition to the statistical analysis, the mean scores for each group on each bipolar terms scale were plotted on profiles for visual comparison.

2. Do members of the same cultural group share common perceptions of meaning when confronted with the same three dance stimuli? This question was answered by computing Pearson correlations among the means of the sums of all scales, 1-15, for each of the three stimulus films, i.e., 1, 2, and 3, by cultural group. Pearson correlations for the means of the sum of the evaluative scales, of the activity scales, and of the potency scales were also computed by cultural group.
3. Does age, sex and education affect perceived meanings? These questions were answered by computing analyses of covariance using the demographic variables. The analysis was computed for the total for each cultural group on each separate film.



4. Does prior dance experience relate to perceived meaning of the dance stimulus? An analysis of covariance was computed for the evaluative, activity, and potency dimensions.
5. Does the use of a title, as a perceptual cue, affect the groups' perceptions? This question was answered by analysis of covariance for the title/no title variables using the mean total for each film for each group.
6. Was any preference for one dance over another discernible when cultural group was considered? This question was answered by inspection of the means for the total for each group for each film.

For all statistical analyses, an alpha level of 0.05 was considered for significance.

## CHAPTER IV.

### FINDINGS

The subjects of this study are characterized in this chapter. Then the results of the data analysis are presented. The findings are organized according to the framing questions set forth in Chapter II. The findings are examined first to determine similarities within a cultural group. The differences are examined later. The text concludes with a discussion of the results of the data analysis.

#### The Sample

A total of 124 volunteers who participated in the study were students at the International School of Tanganyika, Ltd., parents of the students, or staff members. Each volunteer met protocol criteria for age, English fluency, cultural identification, and home country residency. The cultural groups and the number of volunteers from each were (a) 43 Africans, (b) 41 Americans, and (c) 40 Asians. A description of each cultural category is summarized and presented in Table 1. A cultural profile based on the researcher's observation is included for each of the three cultural groups.

#### Africans

The age range for the 43 African volunteers was between 12 and 39 years. The 12 to 19 years category included 91% of the sample while the 20-29 years category was represented by only 7%.

In addition, there was one subject from the 30 to 39 years category. A nearly equivalent number of females (21) and males (22) participated in the study.

Educationally, 91% of the Africans had completed primary school and were enrolled in a secondary program. From the other categories, there was one volunteer for each educational level. Of the Africans, 46% viewed the stimuli films accompanied by a title. The remaining 54% viewed the films without a title. The experience variable by category was composed of volunteers of whom 91% were inexperienced and 9% had some experience. No member of the African sample qualified for the experienced category.

The African boys are generally light-hearted and merry. They are typically physical in their interaction with the other members of the student body and are frequently involved in aggressive exchanges, both physical and verbal. Most of the social life of the boys is centered around athletic competition which usually does not include female involvement. The one situation of pairing as one might expect is at the disco dances held at the school. It is more typical to see members of the same sex dancing together than it is to see members of the opposite sex. Both boys and girls hold hands with friends of the same sex while they have social exchanges and are often seen strolling hand in hand as they talk. Dating is almost nonexistent in this group at the school.

The African girls are also congenial and effervescent as they participate in sports or dancing. Frequently, the girls gather and

Table 1  
Summary of Sample

	African	American	Asian
Number of Subjects	43	41	40
Age Range:			
12-19 years	39	18	35
20-29 years	3	3	2
30-39 years	1	12	2
40-49 years	0	5	1
50-59 years	0	2	0
60-69 years	0	1	0
Sex:			
Female	21	19	22
Male	22	22	18
Education Level:			
Complete Primary	39	18	37
Complete Secondary	1	0	0
Attend College	1	1	0
Complete College	1	5	0
Complete University	1	17	1
Dance Experience:			
No experience	39	19	31
Some experience	4	19	8
Experienced	0	3	1
Title:	25	27	20
No Title:	18	14	20

sing or dance for recreation; sometimes it is traditional music from their home country, and sometimes it is western music. The girls seldom wear slacks or shorts outside of school. Even in their physical education classes, many prefer to wear skirts over their shorts while participating. There are a fair number of the children who come from homes with more than one wife, either living in the home or in another city. Women's roles are focused on child rearing and maintenance of the home. Members of the social strata attending the school expect their female children to be educated. They also accept that their daughters may work in public positions. For most families, the mothers do not work outside of the home.

#### Americans

The American sample totaled 41 volunteers of whom 19 were females and 22 were males. The ages ranged from 12 to 64 years, the widest range of any group. The 12 to 19 years category constituted 43% of the sample while the 30 to 39 years category included 29% of the sample. The 40-49 years category was a small 5%. There was also one volunteer over sixty years of age; three were between 20 and 29 years, and two were between 50 and 59 years.

The educational level of the sample was also the most diverse of the three cultural groups. Of the sample 43% had only completed primary school. This was in contrast to 41% who had completed university. There was one volunteer who had attended college while 11% had completed college.

Of the 41 Americans, 14 viewed the stimulus films without a title, but accompanied by a descriptive phrase. The remaining 27 viewed the stimuli films with a title. Of the group 44% were inexperienced in dance, 44% were somewhat experienced and 22% were experienced.

The Americans are perhaps the most social of the three cultural groups. Early in their teens, American children have sexually mixed parties. They are more like the European children in that they experience exclusive relationships with members of the opposite sex at an early age. They are regular participants at the dances and at the athletic events. The children frequently gather in mixed groups to watch video or to listen to music. There are activities that are sexually exclusive such as scouting, but these are not primary means of socializing. Sports are frequently played with sexually mixed teams. Many of the mothers work outside the home, and the fathers are involved to some degree in the rearing of their children. Again, these are generalizations based on observations by the investigator.

### Asians

There were 40 Asian volunteers who completed the semantic differential for the three stimuli films. The largest number of volunteers, 87% were between the ages of 20 to 29 years and two between 30 to 39 years. There was only one over 40 years of age.

The educational range among the Asian volunteers was narrow. Of the sample, 93% had completed primary school and were enrolled in secondary school. The other three volunteers were university

graduates. Generally, the Asians were not very experienced in dance. Only two of the 40 Asians were experienced in some form of dance. Of the Asian sample, 50% viewed the film with a title and 50% viewed the film with a descriptive phrase.

The Asians are more westernized than the Africans, but are far more conservative than the Americans in their attitudes toward the socializing of the children. As a rule, dating is discouraged for teenagers. The girls are retiring and affect a helpless attitude toward athletics. They are not typically skilled in team sports and with the exception of badminton and swimming seldom participate voluntarily in physical activity. The girls at the school usually wear shorts for physical education class, but also shower while wearing bathing suits. It is not unusual to find Asian women and girls swimming in the Indian Ocean in their street clothes which are most often the typical Hindu saree. The boys and girls are encouraged to participate in religious dancing that is usually segregated by sex and age. They are not encouraged or perhaps not permitted to attend the school dances.

The Asian boys often come to the school social activities, but usually stand and watch. They center their social encounters around sports activities with members of the same sex. Generally, the Asian boys and girls are the more serious students of the school. There is a definite sense of male superiority in this cultural group. The mothers are less likely to work outside the home than are the Americans.

### Summary

Each cultural group was composed of a similar number of subjects; there were 43 Africans, 40 Americans, and 41 Asians for a total of 124 volunteers. The age range was the widest among the American volunteers and was also more evenly distributed. The American group was also more diverse in the education variable. The Asian group represented two extremes in education, either they were only beginning or they were well educated. The African and Asian groups were nearly equally divided on the title/no title variable, but of the Americans, only 37% viewed the stimuli films without a title.

### Similarities and Differences among the Three Groups

In Table 2, the summary means are identified by cultural group and by dimension. Osgood et al. (1957) proposed the interpretation of each of the seven spaces between opposing word pairs as follows: (a) extremely like, (b) quite like, (c) slightly like, or (d) equally like. Adhering to these previously identified designations, the mean scores for each dimension as they appear in Table 5 could be interpreted in the following manner:

<u>Mean</u>	<u>Interpretation</u>
35-30	Extremely like
29-25	Quite like
24-20	Slightly like
19-15	Equally like
14-10	Slightly like
9-5	Quite like
4-1	Extremely like



Table 2  
Means of Summaries by Group and Total Sample

	Stimulus 1	Stimulus 2	Stimulus 3
<u>Evaluative</u>			
African	23.5349	26.4651	26.0238
American	23.7317	24.5122	28.4634
Asian	21.3500	24.1250	25.4750
<u>Activity</u>			
African	21.6512	26.9535	16.9302
American	25.5854	28.8293	17.5610
Asian	21.5500	28.2750	15.5000
<u>Potency</u>			
African	21.6744	25.5581	18.0233
American	28.4634	26.2195	18.8049
Asian	23.3750	26.0250	17.6000
<u>All</u>			
African	66.8605	78.9767	60.9768
American	77.7805	79.5610	64.8293
Asian	66.2850	78.4250	58.5750

For the evaluative dimension of Stimulus Film 1, all three cultural groups found that the dance stimuli were slightly like the positive word of the five word pairs. All of the groups saw the film as slightly more (a) obvious than subtle, (b) beautiful than ugly, (c) controlled than accidental, (d) smooth than rough, and (e) good than bad. Stimulus Film 1 was identified on the response sheet as "Disc," or as "large group."

It should be noted that the activity dimension of the Stimulus Film 1 revealed the most variation among the groups. The Africans and Asians saw the dance as "slightly like" the word (a) emotional, (b) slow, (c) still, (d) passive, and (e) calm. The Americans on the other hand, perceived the film as "quite like" the descriptors (a) rational, (b) fast, (c) vibrant, (d) active, (e) excitable. The activity dimension for Stimulus Film 2, "Fixation," was also perceived by all three cultural groups as "quite like" the five descriptive words: (a) emotional, (b) slow, (c) still, (d) passive, and (e) calm.

For Stimulus Film 3, "First Love," all three groups perceived the dance as "equally like" the word pairs. They all found the dance equally rational and emotional, equally fast and slow, equally vibrant and still, equally active and passive, and equally excitable and calm. The summary mean scores for film 3 were for Africans 60.9768, for Americans 64.8293, and Asians 58.5750.

Analysis of the potency dimension of Stimulus Film 1, "Disc," revealed that the Americans found the film "quite like" the descriptive words, i.e., strong, masculine, hard, violent, serious,

but the Asians and Africans perceived the film as only "slightly like" the words. There was agreement among the three groups on film 2. They all perceived the dance, "Fixation," as "quite like" the positive descriptive words.

"First Love," Stimulus Film 3, was perceived in the potency dimension in much the same manner by all three groups. The mean for each group falls in the "equally like" category. Thus, all groups found the dance equally strong and weak, equally masculine and feminine, equally hard and soft, equally violent and gentle, and equally serious and humorous.

Of the three cultural groups, the African and Asians had similar summary means for Stimulus Film 1 and Stimulus Film 2. The Americans were distinctly different in their perceptions of film 1, but were much like, although not identical to the other cultural groups on film 2. For film 3, "First Love," the means scores for all three groups were dissimilar.

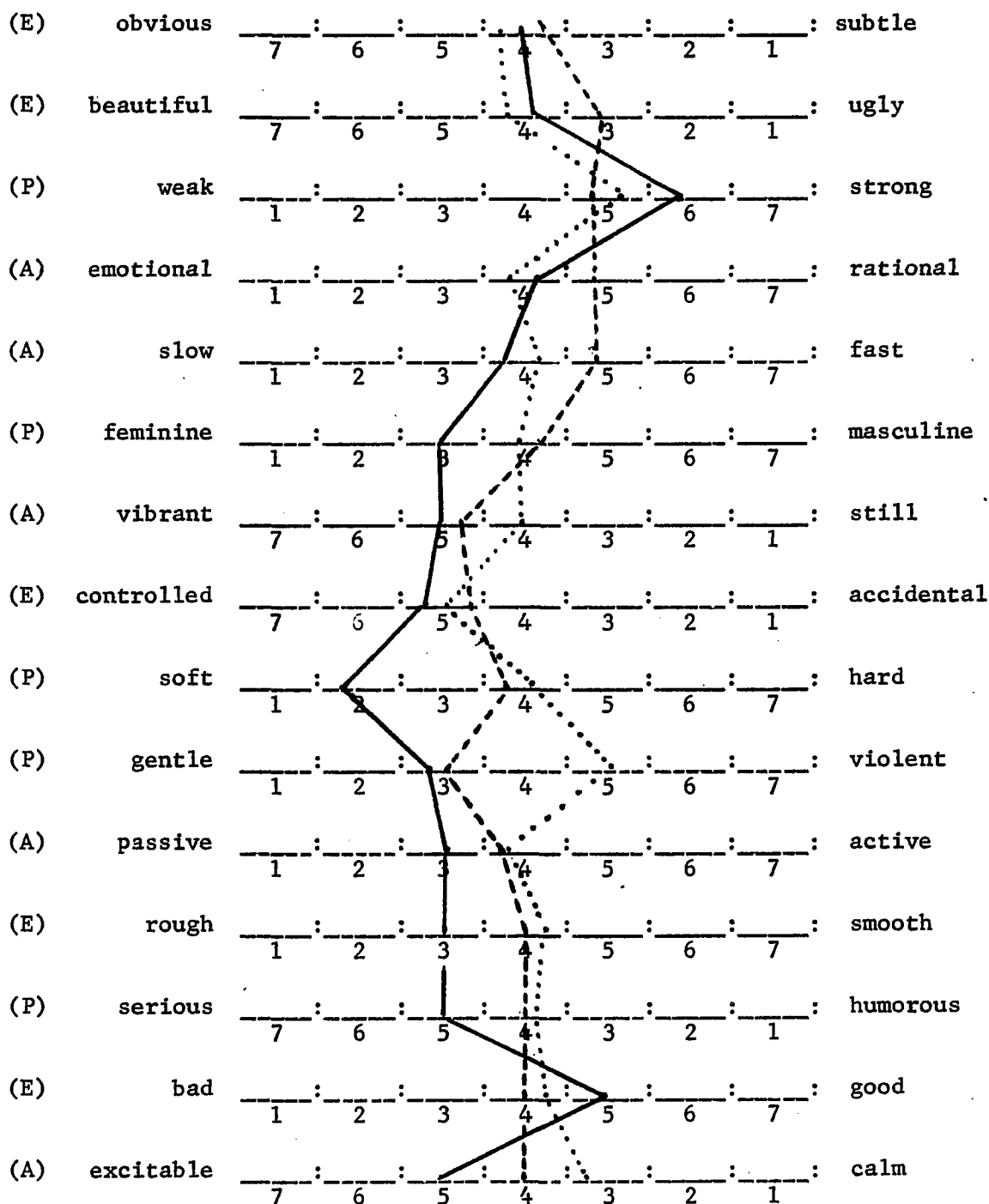
Figures 1, 2, and 3 reveal the means for each word pair by film and by cultural group. Thus, visual comparison can be made.

A D-statistic was computed to determine the relative position of each group meaning in semantic space. The D-statistic as explained by Osgood, et al. (1957) provides quantitative measurement of the computed scores in semantic space. Tables 3, 4, and 5 represent the matrix that resulted from the computations for each group. A correlation coefficient computed between Stimulus Film 2 and Stimulus Film 3 was the strongest of the three. See Table 5.

Figure 1

Comparison of Cultural Groups Using

Means for Polar Terms: Film 1

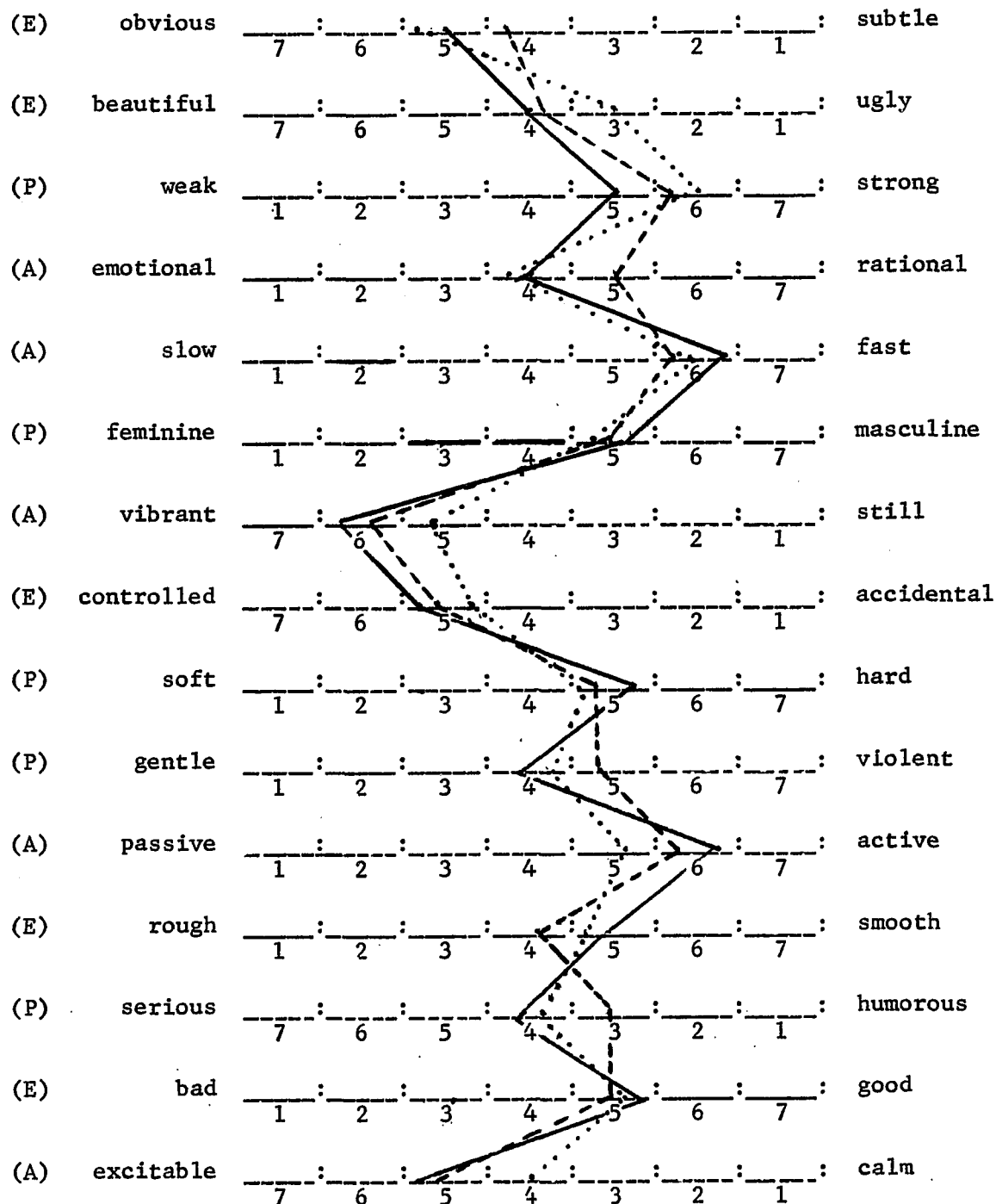


Note.- (E) = Evaluative  
 (P) = Potency  
 (A) = Activity

..... = African  
 ————— = American  
 - - - - - = Asian

Figure 2

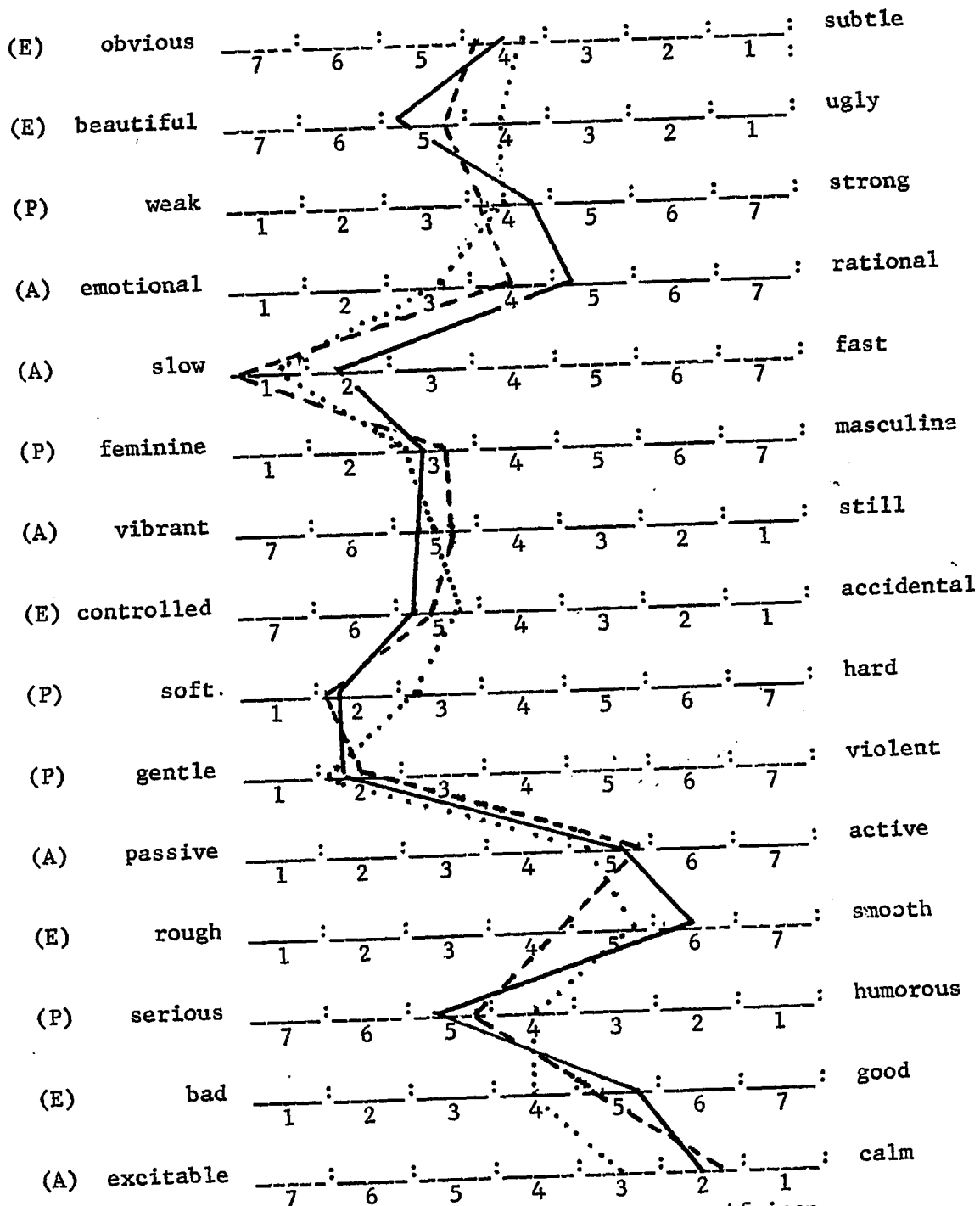
Comparison of Cultural Groups Using  
Means for Polar Terms: Film 2



Note.- (E) = Evaluative  
(P) = Potency  
(A) = Activity

..... = African  
———— = American  
- - - - = Asian

Figure 3  
 Comparison of Cultural Groups Using  
 Means for Polar Terms: Film 3



Note.- (E) = Evaluative  
 (P) = Potency  
 (A) = Activity  
 ..... = African  
 ————— = American  
 - - - - - = Asian

Table 3

D-Statistic Matrix for Means of

15 Bipolar Terms: Africans

	Stimulus Film 1	Stimulus Film 2	Stimulus Film 3
Stimulus Film 1		5.1437	6.966
Stimulus Film 2	5.1437		5.927
Stimulus Film 3	6.966	5.927	

Table 4

D-Statistic Matrix for Means of

15 Bipolar Terms: Americans

	Stimulus Film 1	Stimulus Film 2	Stimulus Film 3
Stimulus Film 1		2.298	8.529
Stimulus Film 2	2.297		7.846
Stimulus Film 3	8.529	7.846	

Table 5  
 D-Statistic Matrix for Means of  
 15 Bipolar Terms: Asians

	Stimulus Film 1	Stimulus Film 2	Stimulus Film 3
Stimulus Film 1		5.553	9.989
Stimulus Film 2	5.553		5.476
Stimulus Film 3	9.989	5.476	

Table 6  
 D-Statistic Correlation Coefficients  
 for Cultural Groups

	African	American	Asian
African		0.57	0.88
American	0.57		0.90
Asian	0.88	0.90	



To further answer the question of whether the meanings perceived by the three cultural groups compare with respect to similarities and differences, an analysis of variance was computed for each of the five variables, i.e., culture, sex, age, education and title. The three specified cultural groups constituted the cultural variable. Two categories were specified for the analysis of the sex variable, and six categories were specified for the analysis designated for the age variable analysis. An ANOVA for the educational level was computed on the basis of the five identified age groups. The title/no title variable was also specified into two categories. (The classification format is detailed in Table 1, page 45.)

#### Stimulus Film 1

A one way analysis of variance of Stimulus Film 1 by word pair and by summary totals was computed. The results are presented in Tables 7, 8, and 9.

Evaluative Dimension. In the evaluative dimension, the word pair beautiful/ugly was significantly different at  $p = .05$  level for the variable of title/no title. The Africans and Americans were neutral in their reaction to word pair as applied to film 1 while the Asians perceived the dance as slightly ugly.

The controlled/accidental word pair was significantly different for the variable of age, but all three groups perceived the film as slightly controlled. These were the only word pairs from Stimulus Film 1 for which significantly different F values were obtained.

Table 7

## Analysis of Variance for Stimulus Film 1:

## Variable by Semantic Dimension

	Culture	Sex	Age	Experience	Education	Title/ No Title
<u>Evaluative</u>						
obvious/ subtle	F=1.343 0.2649	F=1.021 0.3144	F=1.231 0.2989	F=0.019 0.9814	F=0.512 0.7273	F=0.002 0.0621
beautiful/ ugly	F=1.848 0.1620	F=0.036 0.8500	F=0.986 0.4296	F=0.789 0.4565	F=1.357 0.2530	F=3.802 0.0535
controlled/ accidental	F=2.226 0.1124	F=0.672 0.4140	F=2.851 0.0182	F=1.587 0.2088	F=1.344 0.2578	F=0.134 0.7146
smooth/ rough	F=1.016 0.3651	F=1.617 0.2060	F=0.621 0.6840	F=0.853 0.4288	F=0.518 0.7229	F=0.029 0.8641
good/ bad	F=0.767 0.4666	F=0.130 0.7187	F=1.008 0.4164	F=1.041 0.3562	F=0.718 0.5810	F=0.120 0.7296
<u>Activity</u>						
rational/ emotional	F=1.330 0.2683	F=0.200 0.6557	F=0.474 0.7953	F=1.773 0.1742	F=0.800 0.5279	F=3.744 0.0553
fast/ slow	F=3.786 0.0279	F=0.535 0.4657	F=0.278 0.9242	F=0.335 0.7161	F=0.116 0.9755	F=6.606 0.0114
vibrant/ still	F=5.210 0.0068	F=0.265 0.6079	F=0.340 0.8876	F=0.786 0.4579	F=1.758 0.1418	F=0.927 0.3377
active/ passive	F=6.254 0.0026	F=0.957 0.3299	F=0.317 0.9021	F=0.848 0.4309	F=1.335 0.2610	F=2.789 0.0975
excitable/ calm	F=6.217 0.0027	F=1.738 0.1899	F=1.027 0.4049	F=0.215 0.8068	F=1.386 0.2428	F=5.181 0.0246
<u>Potency</u>						
strong/ weak	F=7.932 0.0006	F=0.521 0.4719	F=1.815 0.1152	F=0.574 0.5645	F=1.682 0.1587	F=5.180 0.0246
masculine feminine	F=3.961 0.0216	F=18.205 0.0000	F=1.913 0.0972	F=1.023 0.3626	F=1.988 0.1008	F=0.009 0.9228
hard/ soft	F=12.559 0.0000	F=1.193 0.2769	F=1.441 0.2146	F=1.481 0.2316	F=2.337 0.0593	F=11.109 0.0011
violent/ gentle	F=12.249 0.0000	F=0.327 0.5686	F=0.770 0.5733	F=0.471 0.6256	F=0.701 0.5929	F=12.292 0.0006
serious/ humorous	F=0.767 0.4666	F=0.130 0.7187	F=1.008 0.4164	F=1.041 0.3562	F=0.718 0.5810	F=0.120 0.7296
<u>Summary</u>						
	F=10.767 0.0000	F=3.448 0.0658	F=2.059 0.0754	F=2.690 0.0719	F=2.372 0.0562	F=6.181 0.0143

N=124

d.f.=2, 121

Table 8

## Analysis of Variance for Stimulus Film 2:

## Variable by Semantic Dimension

	Culture	Sex	Age	Experience	Education	Title/ No Title
<u>Evaluative</u>						
obvious/ subtle	F=3.350 0.0048	F=0.008 0.9290	F=0.106 0.9908	F=0.605 0.5475	F=0.190 0.9433	F=0.019 0.8894
beautiful ugly	F=5.578 0.0048	F=1.552 0.2153	F=0.193 0.9647	F=0.150 0.8607	F=0.543 0.7041	F=1.036 0.3109
controlled/ accidental	F=1.121 0.3293	F=0.221 0.6393	F=3.190 0.0097	F=1.951 0.1465	F=3.660 0.0075	F=3.154 0.0782
smooth/ rough	F=0.763 0.4686	F=0.246 0.6209	F=1.410 0.2257	F=0.439 0.6454	F=0.690 0.6004	F=0.005 0.9444
good/ bad	F=1.142 0.3225	F=0.003 0.9549	F=0.296 0.9143	F=0.515 0.5986	F=0.569 0.6857	F=3.177 0.0772
<u>Activity</u>						
rational/ emotional	F=2.844 0.0621	F=0.476 0.4918	F=0.403 0.8458	F=0.410 0.6708	F=1.479 0.2128	F=0.124 0.7248
fast/ slow	F=1.385 0.2543	F=1.354 0.2468	F=1.846 0.1091	F=0.580 0.5613	F=2.398 0.0540	F=0.297 0.5865
vibrant/ still	F=2.746 0.0682	F=0.268 0.6054	F=0.896 0.4864	F=0.241 0.7864	F=1.498 0.2072	F=1.199 0.2756
active/ passive	F=2.876 0.0602	F=0.096 0.7578	F=0.252 0.9380	F=0.609 0.5454	F=0.596 0.6664	F=3.933 0.0496
excitable/ calm	F=7.417 0.0009	F=0.227 0.6347	F=0.486 0.7863	F=0.863 0.4245	F=0.175 0.9509	F=3.626 0.0593
<u>Potency</u>						
strong/ weak	F=0.273 0.7614	F=0.477 0.4912	F=0.358 0.8761	F=0.410 0.6647	F=1.149 0.3369	F=0.619 0.4331
masculine/ feminine	F=0.550 0.5782	F=1.236 0.2685	F=0.432 0.8257	F=0.179 0.8364	F=0.874 0.4819	F=0.281 0.5971
hard/ soft	F=0.328 0.7208	F=0.094 0.7595	F=0.904 0.4809	F=0.700 0.4984	F=1.187 0.3199	F=0.036 0.8499
violent/ gentle	F=2.689 0.0720	F=2.713 0.1021	F=1.248 0.2914	F=1.147 0.3210	F=1.298 0.2748	F=0.001 0.9731
serious/ humorous	F=1.071 0.3416	F=2.520 0.1150	F=1.875 0.1038	F=2.357 0.0990	F=1.768 0.1397	F=6.599 0.0114
<u>Summary</u>						
	F=0.140 0.8698	F=0.659 0.4184	F=0.145 0.9812	F=0.796 0.4535	F=0.326 0.8601	F=0.001 0.9785

N=124

d.f.=2, 121

Table 9

## Analysis of Variance for Stimulus Film 3:

## Variable by Semantic Dimension

	Culture	Sex	Age	Experience	Education	Title/ No Title
<u>Evaluative</u>						
obvious/ subtle	F=1.733 0.1811	F=4.131 0.0443	F=2.240 0.0548	F=4.885 0.0091	F=1.018 0.4008	F=0.618 0.4332
beautiful/ ugly	F=2.400 0.0950	F=7.894 0.0058	F=1.107 0.3604	F=0.808 0.4482	F=1.004 0.4082	F=0.109 0.7413
controlled/ accidental	F=0.032 0.9687	F=1.509 0.2216	F=0.517 0.7633	F=2.369 0.0979	F=0.401 0.8079	F=0.162 0.6879
smooth/ rough	F=1.327 0.2692	F=0.520 0.4724	F=0.428 0.8285	F=0.614 0.5429	F=0.456 0.7677	F=0.155 0.6942
good/ bad	F=1.276 0.2828	F=8.101 0.0052	F=1.461 0.2079	F=0.887 0.4146	F=1.351 0.2550	F=1.993 0.1605
<u>Activity</u>						
rational/ emotional	F=3.834 0.0243	F=1.048 0.3080	F=1.111 0.3581	F=1.914 0.1520	F=1.697 0.1552	F=0.571 0.4513
fast/ slow	F=2.446 0.0909	F=0.017 0.8970	F=2.609 0.0282	F=4.764 0.0102	F=2.634 0.0375	F=0.475 0.4920
vibrant/ still	F=0.157 0.8548	F=1.764 0.1866	F=0.269 0.9291	F=0.129 0.8791	F=0.237 0.9171	F=3.464 0.9651
active/ passive	F=0.293 0.7464	F=0.067 0.7966	F=1.012 0.4136	F=2.136 0.1226	F=0.677 0.6093	F=0.235 0.6286
excitable/ calm	F=5.438 0.0055	F=0.534 0.4663	F=1.119 0.3539	F=0.037 0.9633	F=1.185 0.3209	F=0.370 0.5444
<u>Potency</u>						
strong/ weak	F=0.593 0.5543	F=1.181 0.2792	F=0.665 0.6506	F=0.697 0.5001	F=0.391 0.8150	F=0.297 0.5870
masculine/ feminine	F=0.619 0.5403	F=0.546 0.4612	F=0.466 0.8011	F=0.048 0.9535	F=0.533 0.7121	F=0.748 0.3889
hard/ soft	F=2.454 0.0902	F=1.071 0.3027	F=0.708 0.6189	F=0.848 0.4310	F=1.554 0.1910	F=0.870 0.3528
violent/ gentle	F=0.025 0.9753	F=0.405 0.5255	F=0.231 0.9481	F=0.699 0.4991	F=1.625 0.1724	F=0.531 0.4676
serious/ humorous	F=7.196 0.0011	F=1.465 0.2285	F=1.147 0.3397	F=0.172 0.8422	F=0.770 0.5471	F=1.154 0.2848
<u>Summary</u>						
	F=1.850 0.1616	F=1.278 0.2605	F=2.456 0.0372	F=2.081 0.1293	F=2.158 0.0779	F=2.302 0.1318

N=124

d.f.=2, 121

Activity Dimension. For the activity dimension of Stimulus Film 1 six obtained F values were significant at  $p = .05$ . The fast/slow word pair was significantly different for the effect of culture,  $p = 0.03$ , and for the title/no title variable,  $p = 0.01$ . The Asians perceived the dance as slightly fast while the Africans and Americans perceived it as neither fast nor slow.

The vibrant/still word pair was significantly different at  $p = 0.01$  for the effect of culture. The Africans perceived the dance as neither vibrant nor still. The Americans found the dance slightly more vibrant than the Asians.

An F of 6.254 was significantly different for the effect of culture for the active/passive word pair. The Africans and Asians were neutral in their perception of the dance as described by the active/passive word pair. The Americans saw the dance as slightly passive.

There was also a significant difference for the word pair excitable/calm for the effect of culture and for title/no title. The Africans considered the dance as slightly calm. The Asians perceived the dance as neither calm nor excitable. The Americans perceived the dance as slightly excitable.

Potency Dimension. The analysis of the potency dimension of Stimulus Film 1 indicated nine F-ratios which were significant to  $p = .05$ . The effect of culture was indicated in four of the five word pairs. Strong/weak was significant at  $p = 0.000$ . The Africans

and Asians perceived the dance as slightly strong, while the Americans saw the dance as quite strong.

The masculine/feminine was significantly different,  $p=0.02$ . The Africans and Asians were both neutral in their perception of the dance. The Americans perceived it as slightly feminine.

The word pairs, hard/soft and violent/gentle were significantly different at  $p=0.000$ . The Africans and Asians were neutral in their response to the hard/soft pair as descriptive of the dance. The Americans perceived the dance as quite soft. The Africans considered the dance as slightly violent and the Asians and Americans considered the dance slightly gentle.

The effect of the sex variable was indicated for masculine/feminine. The education variable had an F-ratio with a  $p=0.05$ /

The effect of the variable of title/no title was significant for three of the five word pairs, i.e., strong/weak, masculine/feminine and violent/gentle. Each was significantly different at  $p=0.05$ . The word pairs, masculine/feminine and serious/humorous indicated no effect for any of the variables. In addition, analysis of the summary totals for all 15 word pairs indicated two significantly different relationships. There was a  $p=0.00$  for c culture and  $p=0.01$  for the title/no title variable.

#### Stimulus Film 2

Evaluative Dimension. The analysis of Stimulus Film 2 indicated an effect for the variables of culture, age, experience and

title for the evaluative dimension. Culture was the main effect indicated for word pairs obvious/subtle,  $p=0.04$ , and beautiful/ugly,  $p=0.01$ . Both the Americans and Africans perceived the dance as obvious. The Asians were neutral in their judgement of this word pair. The Americans and Asians were neutral concerning the evaluative factor of beautiful/ugly, but the Africans perceived the dance as slightly ugly.

The effect of age and education was indicated for the word pair, controlled/accidental to a  $p=0.01$ . The Americans perceived the dance as slightly more controlled than did either of the other two groups.

Activity Dimension. There were very few significantly different relationships in the activity dimension. Cultural effect was indicated for excitable/calm. The Africans were neutral on the excitable/calm word pairs, but the Americans perceived the dance as slightly more excitable than did the Asians.

Dance experience was indicated in only one word pair, fast/slow. All three groups perceived the dance as quite fast, but the Americans' responses were more toward the word fast for this word pair. The active/passive word pair was significantly different at  $p=0.05$  for the effect of the title/no title variable. The Africans found the dance slightly active, but the Americans and Asians found the dance quite active.

Potency Dimension. The potency dimension analysis for Stimulus Film 2 indicated that the title/no title variable was significantly

different at  $p=0.05$ . There were no other significant differences indicated in the potency dimension nor in the summary of all 15 word pairs by the six variables.

### Stimulus Film 3

The analysis of Stimulus Film 3 responses indicated 10 significant differences. These crossed all three dimensions.

Evaluative Dimension. The evaluative dimension analysis indicated main effects for sex, age and education. Further analysis indicated that the sex variable was significant for word pairs obvious/subtle, beautiful/ugly and good/bad.

The Asians demonstrated a tendency toward the obvious distinction while the Asians showed a tendency toward the subtle end of the scale. The Americans were more neutral in their perception of the dance as described by the word pair obvious/subtle. The Africans perceived the dance as neither beautiful nor ugly. The Asians and Americans perceived the dance as slightly beautiful. The Africans were neutral while the Americans and Asians indicated that the adjective good was slightly appropriate.

Activity Dimension. The activity dimension analysis indicated that there were two word pairs which were significantly different. The rational/emotional word pair results identified culture as the main effect at  $p=0.02$ . The Africans perceived the dance as slightly emotional and the Americans perceived the dance as slightly rational. The Asians were neutral concerning this word pair.



For fast/slow, the age variable was significantly different at  $p=0.03$ . The education variable was significantly different at  $p=0.01$ , and the experience variable was significant at  $p=0.04$ . The Asians and the Africans found the dance extremely slow while the Americans perceived the dance as quite slow.

Potency Dimension. The potency dimension results indicated a main effect of culture for the serious/humorous word pair at  $p=0.00$ . The Americans and Asians perceived the dance as slightly serious, but the Africans perceived the dance as neither serious nor humorous.

The analysis of the summary scores indicated that the effect of age was significantly different at  $p=0.04$ . There were no other variations indicated for Stimulus Film 3.

#### Post Hoc Analysis

The activity and the potency dimensions of Stimulus Film 1 were the only dimensions of all three films for which a significant difference was obtained among the groups in the ANOVA computed for the variables of age, sex and education when considered by cultural group. A post hoc test, Scheffé S, was computed to identify the source of the variance in the data. Table 10 presents the results of the analysis denoting pairs of groups which were significantly different at 0.05 level.

The data indicated that for cultural group designation, Americans differed from the Asians and the Africans in their perception of the Stimulus Film 1 in the potency dimension. The word pairs of this

Table 10

Scheffé S

## Stimulus Film 1: Potency Dimension

mean		African	American	Asian
21.6744	African		*	
28.4634	American	*		*
23.3750	Asian		*	

Note.- \* Denotes Pairs of Groups Significantly Different at the 0.05 level.

dimension are (a) strong/weak, (b) masculine/feminine, (c) hard/soft, (d) violent/gentle, and (e) serious/humorous.

The Americans perceived film 1 as quite strong while the Africans and Asians perceived the film as slightly strong. The feminine/masculine designation was equivalent for the Asians and Africans, but slightly feminine for the Americans. The perception indicated by the Asians and Africans was neutral for the hard/soft word pair. The Americans perceived film 1 as quite soft.

The American and Asians were in agreement that the dance elicited a slightly gentle perception. The Africans perceived the dance as slightly violent. The Africans and Asians were neutral in their reaction to the word pair, serious/humorous. The Americans perceived the dance as slightly serious.

Table 11 presents the Scheffé S analysis results of the activity dimension of the same film. Again the data indicated that the cultural groups differed in their perceptions. For the activity dimension, the Americans differed from both the Africans and the Asians. The word pairs considered were (a) rational/emotional, (b) fast/slow, (c) vibrant/still, (d) active/passive, and (e) excitable/calm.

The Americans and Africans were neutral in their perception on the rational/emotional word pair. The Asians perceived the dance as slightly rational. The Asians also perceived the dance as slightly fast. The Americans and Africans were again neutral for the fast/slow word pair. The Asians continued the trend in their

Table 11

Scheffé S

Stimulus Film 1: Activity Dimension

mean		African	American	Asian
21.6512	African		*	
25.5854	American	*		*
21.5510	Asian		*	

Note.- \* Denotes Pairs of Groups Significantly Different at the 0.05 level.

perception of the dance for the vibrant/still consideration. Both the Asians and Americans perceived the dance as slightly vibrant. The Africans were neutral.

The Asians and Africans were both neutral in the passive/active description. The Americans perceived the dance as slightly passive. Although the Asians were neutral in their perceptions of the dance as either excitable or calm, the Americans perceived the dance as slightly excitable. This was in direct contrast to the Asians perception that the dance was slightly calm.

To further consider the role of age, sex and education with respect to perceived meaning, three analyses of covariance were computed. The demographic variables of age, sex and education were used as covariates for the main effect of cultural identification. Analysis of covariance is useful because it removes possible sources of variance in the criterion variables that were not controlled for in the experimental design. By reducing the extraneous influences, Hair, Anderson, Tatham, and Grablovsky (1979) assert that it is not necessary to match groups on background variables. In each statistical analysis, cultural group was considered along with one of the demographic variables. In Table 12, the results are presented by cultural group for the variables of sex, age, and education.

#### Stimulus Film 1

For Stimulus Film 1 significant F values were obtained for the potency dimension for both the covariate age,  $F=7.671$ , and the main effect, culture,  $F=15.482$ . With respect to the activity dimension,

Table 12  
Analysis of Covariance: Culture

	Stimulus Film 1		Stimulus Film 2		Stimulus Film 3	
	F	p	F	p	F	p
<u>Summary</u>						
Covariate/AGE	5.045	<u>0.027</u>	0.042	0.838	5.476	<u>0.021</u>
Main Effect/CULTURE	8.171	<u>0.000</u>	0.118	0.889	0.563	<u>0.571</u>
<u>Evaluative</u>						
Covariate/AGE	1.653	0.201	1.763	0.187	0.550	0.460
Main Effect/CULTURE	1.346	0.264	3.995	<u>0.021</u>	0.694	0.502
<u>Potency</u>						
Covariate/AGE	7.671	<u>0.007</u>	0.192	0.662	2.635	0.107
Main Effect/CULTURE	15.482	<u>0.000</u>	0.481	0.620	0.117	0.892
<u>Activity</u>						
Covariate/AGE	0.982	0.324	0.407	0.525	4.075	<u>0.046</u>
Main Effect/CULTURE	6.199	<u>0.003</u>	3.327	<u>0.039</u>	0.807	<u>0.449</u>

	Stimulus Film 1		Stimulus Film 2		Stimulus Film 3	
	F	p	F	p	F	p
<u>Summary</u>						
Covariate/SEX	3.084	<u>0.048</u>	0.650	0.422	1.293	0.258
Main Effect/CULTURE	10.489	<u>0.000</u>	0.171	0.843	2.726	0.284
<u>Evaluative</u>						
Covariate/SEX	0.294	0.589	0.302	0.655	11.360	<u>0.001</u>
Main Effect/CULTURE	1.636	0.199	2.465	0.089	0.767	<u>0.467</u>
<u>Potency</u>						
Covariate/SEX	7.430	<u>0.007</u>	1.709	0.194	0.308	0.580
Main Effect/CULTURE	19.549	<u>0.000</u>	0.237	0.789	0.531	0.589
<u>Activity</u>						
Covariate/SEX	1.707	0.194	0.015	0.903	0.230	0.633
Main Effect/CULTURE	6.010	<u>0.003</u>	2.008	0.139	1.493	0.229

(continued)

Table 12 (Continued)

	Stimulus Film 1		Stimulus Film 2		Stimulus Film 3	
	F	p	F	p	F	p
<u>Summary</u>						
Covariate /EDUCATION	6.012	<u>0.016</u>	0.166	0.684	5.620	0.019
Main Effect/CULTURE	7.674	<u>0.001</u>	0.356	0.701	0.480	0.620
<u>Evaluative</u>						
Covariate/EDUCATION	1.328	0.251	1.618	0.206	0.853	0.358
Main Effect/CULTURE	1.320	0.271	3.913	<u>0.023</u>	0.573	0.565
<u>Potency</u>						
Covariate/EDUCATION	12.182	<u>0.001</u>	1.153	0.285	1.777	0.185
Main Effect/CULTURE	13.118	<u>0.000</u>	0.947	0.391	0.132	0.876
<u>Activity</u>						
Covariate/EDUCATION	0.890	0.347	1.658	0.200	4.319	<u>0.040</u>
Main Effect/CULTURE	6.448	<u>0.002</u>	4.489	<u>0.013</u>	0.736	<u>0.481</u>

a main effect significant  $F$ , 6.199, was obtained. None of the results for the evaluative dimension were significant for age and culture. The ANCOVA for Stimulus Film 1 for all three dimensions combined did, however, yield significant  $F$  values for age and culture. Obtained  $F$ s were  $F = 8.171$  for culture ( $p = 0.000$ ) and 5.045 ( $p = 0.03$ ) for age.

Using sex as the covariate in analyzing Stimulus Film 1 with regard to culture, a significant  $F$  was generated on the potency dimension,  $F = 7.430$  ( $p = 0.01$ ) and for the main effect, culture,  $F = 19.549$  ( $p = 0.00$ ). The main effect of culture was also significant for the activity dimension,  $F = 6.010$  ( $p = 0.003$ ). The tabulated score for all bipolar terms for film 1 indicated that the main effect of culture was significant,  $p = 0.00$  as was sex,  $p = 0.05$ .

The third variable of interest was that of education. The results of the analysis of covariance for culture and education indicated that the potency dimension was statistically significant for both variables. The computations for the education variable resulted in an  $F$  value of 12.182, ( $p = 0.001$ ). Culture also generated an  $F$  value of 13.118, ( $p = 0.000$ ). The activity dimension results,  $F = 6.448$ , indicated that although the main effect of culture was significant at 0.002 level, the variable of education was not significant. There was no significant difference indicated for the evaluative dimension. When all 15 scales were tabulated, and the ANCOVA was computed, the variable, education yielded  $F = 6.012$ , ( $p = 0.016$ ), and the main effect, culture,  $F = 7.674$ , ( $p = 0.001$ ). Both were statistically significant.



Stimulus Film 2

Two statistically significant F values were obtained in the ANCOVA analyses controlling for age. Both of these were for the main effect of culture. The evaluative dimension was characterized by  $F = 3.995$  ( $p = 0.02$ ). The activity dimension analysis yielded an F value of  $3.327$  ( $p = 0.04$ ).

No statistical F values were obtained when analyzing culture and covarying with sex. With regard to education, two significant F values were obtained, for the evaluative dimension and for the activity dimension. F values were  $3.913$  ( $p = 0.023$ ) and  $4.489$  ( $p = 0.013$ ) respectively. It should be noted that both of these were for the main effect, culture, not education.

Stimulus Film 3

Film 3 ANCOVAs revealed that age was a statistically significant variable in the activity dimension. The F value of  $4.075$  was significant at  $0.05$ . When all three dimensions, i.e., evaluative, potency and activity were considered, the results indicated that age was a significant factor,  $F = 5.476$ , ( $p = 0.02$ ).

Covarying with sex and considering culture as the main effect on Film 3, only one statistically significant value was found considering the three semantic differential dimensions and all scales combined. For the evaluative dimension, F for sex was  $11.360$  ( $p = 0.001$ ).

Concerning education as a covariate and culture as a main effect, for the activity dimension, Film 3 yielded a significant F,

4.319 ( $p = 0.040$ ), for education although the cultural variable was not significant. All scales combined for Film 3 in the education and culture analysis also generated a significant F. The obtained value was  $F = 5.620$  ( $p = 0.019$ ). Again, the main effect of culture was not significant.

The portion of the framing question that addressed dance experience was impossible to evaluate statistically because the sample was so heavily inexperienced. Of the total subjects of 124, 72% were classified as inexperienced, 25% had some experience, and 3% were experienced. There was also an uneven distribution among the cultural groups (See Table 1.). The majority of the population who were experienced were in the American cultural group. These numbers were considered unacceptable for comparison.

#### Perceptions Within the Same Cultural Groups

Pearson correlation coefficients were computed for each of the three dimensions of semantic space as identified by Osgood et al. (1957), to examine the relationships among responses within each cultural group. Each of the dimensions were compared, e.g., evaluative, activity, and potency. The obtained coefficients are reported in Tables 13, 14, and 15. The computations were completed for each cultural group separately. The total number of possible correlations considered in the matrix is 36. Of that number, 27 relationships between factors of different films are indicated. The remaining nine correlation coefficients, comparisons within each individual film, were not discussed.

Table 13  
Pearson Correlation Coefficients

## Africans

	1eval	2eval	3eval	1potent	2potent	3potent	lactiv	2activ	3activ
1eval	1.0000 p=****	0.1503 p=0.168	0.0451 p=0.387	0.1869 p=0.115	0.0882 p=0.287	-0.0061 p=0.484	0.4530 p=0.001	0.0404 p=0.398	0.0874 p=0.289
2eval		1.0000 p=****	-0.0274 p=0.431	-0.2228 p=0.076	0.0939 p=0.275	0.0134 p=0.466	-0.1412 p=0.183	0.2602 p=0.046	-0.2153 p=0.083
3eval			1.0000 p=****	0.2129 p=0.085	0.3519 p=0.010	0.1011 p=0.259	0.0870 p=0.290	-0.0534 p=0.367	0.3242 p=0.017
1potent				1.0000 p=****	0.0955 p=0.271	0.1118 p=0.238	0.5727 p=0.000	-0.1215 p=0.219	0.1994 p=0.100
2potent					1.0000 p=****	0.0998 p=0.262	0.1328 p=0.198	0.1791 p=0.125	0.1432 p=0.180
3potent						1.0000 p=****	0.0835 p=0.297	-0.0619 p=0.347	0.2741 p=0.038
lactiv							1.0000 p=****	0.0702 p=0.327	0.0372 p=0.407
2activ								1.0000 p=****	-0.0875 p=0.288
3activ									1.0000 p=****

1eval: Film 1, evaluative dimension  
2eval: Film 2, evaluative dimension  
3eval: Film 3, evaluative dimension

1potent: Film 1, potency dimension  
2potent: Film 2, potency dimension  
3potent: Film 3, potency dimension

lactiv: Film 1, activity dimension  
2activ: Film 2, activity dimension  
3activ: Film 3, activity dimension

Table 14  
Pearson Correlation Coefficients  
Americans

	<u>1eval</u>	<u>2eval</u>	<u>3eval</u>	<u>1potent</u>	<u>2potent</u>	<u>3potent</u>	<u>lactiv</u>	<u>2activ</u>	<u>3activ</u>
1eval	1.0000 p=****	0.4628 p=0.001	0.0451 p=0.390	0.0549 p=0.367	0.0329 p=0.419	0.3701 p=0.009	0.2494 p=0.058	-0.0272 p=0.433	0.3573 p=0.011
2eval		1.0000 p=****	0.1630 p=0.154	-0.2561 p=0.053	-0.1723 p=0.141	0.2066 p=0.097	-0.2049 p=0.099	-0.1079 p=0.251	0.2278 p=0.076
3eval			1.0000 p=****	0.1861 p=0.122	-0.2223 p=0.081	-0.0753 p=0.320	0.3445 p=0.014	-0.0813 p=0.307	0.0797 p=0.310
1potent				1.0000 p=****	0.2801 p=0.038	0.0515 p=0.374	0.3455 p=0.013	0.1289 p=0.211	0.2919 p=0.032
2potent					1.0000 p=****	-0.0456 p=0.388	0.2870 p=0.034	0.3925 p=0.006	-0.3131 p=0.023
3potent						1.0000 p=****	0.0710 p=0.330	-0.2119 p=0.092	0.6305 p=0.000
lactiv							1.0000 p=****	0.1391 p=0.193	0.0619 p=0.350
2activ								1.0000 p=****	-0.4642 p=0.001
3activ									1.0000 p=****

1eval: Film 1, evaluative dimension  
2eval: Film 2, evaluative dimension  
3eval: Film 3, evaluative dimension

1potent: Film 1, potency dimension  
2potent: Film 2, potency dimension  
3potent: Film 3, potency dimension

lactiv: Film 1, activity dimension  
2activ: Film 2, activity dimension  
3activ: Film 3, activity dimension

Table 15.

## Pearson Correlation Coefficients

## Asians

	<u>1eval</u>	<u>2eval</u>	<u>3eval</u>	<u>1potent</u>	<u>2potent</u>	<u>3potent</u>	<u>1activ</u>	<u>2activ</u>	<u>3activ</u>
1eval	1.0000 p=****	0.4780 p=0.001	0.0496 p=0.381	0.0222 p=.446	0.5557 p=0.000	0.2537 p=0.057	0.3722 p=0.009	0.1300 p=0.212	0.4603 p=0.001
2eval		1.0000 p=****	0.1798 p=0.134	0.1564 p=0.168	0.3196 p=0.022	-0.0944 p=0.281	0.1459 p=0.170	0.4442 p=0.002	0.2224 p=0.084
3eval			1.0000 p=****	0.3462 p=0.014	-0.1658 p=0.153	0.0212 p=0.448	0.1554 p=0.169	0.2087 p=0.098	0.1997 p=0.108
1potent				1.0000 p=****	-0.1916 p=0.118	0.0546 p=0.369	0.1742 p=0.141	0.1526 p=0.174	0.0451 p=0.391
2potent					1.0000 p=****	0.1670 p=0.151	0.1503 p=0.177	0.2111 p=0.095	0.1255 p=0.220
3potent						1.0000 p=****	0.0946 p=0.281	-0.1227 p=0.225	0.116 p=0.237
1activ							1.0000 p=****	0.2486 p=0.061	0.1593 p=0.163
2activ								1.0000 p=****	0.0748 p=0.323
3activ									1.0000 p=****

1eval: Film 1, evaluative dimension  
 2eval: Film 2, evaluative dimension  
 3eval: Film 3, evaluative dimension

1potent: Film 1, potency dimension  
 2potent: Film 2, potency dimension  
 3potent: Film 3, potency dimension

1activ: Film 1, activity dimension  
 2activ: Film 2, activity dimension  
 3activ: Film 3, activity dimension

One positive correlation was obtained for the African group between Stimulus Film 2 and Stimulus Film 3. The potency dimension of Stimulus Film 2 was significantly correlated (0.01) with the evaluative dimension of Stimulus Film 3,  $r = 0.3519$ . Five of the additional correlations significant at .05 were relationships between dimensional factors of the same stimulus film. The analysis indicated a  $r$  value of 0.4503 ( $p = 0.001$ ) between the evaluative and activity dimensions of Stimulus Film 1. In addition, there was a significant relationship between the potency and activity dimensions of Stimulus Film 2. The dimensions were correlated with an  $r$  value of 0.2602 ( $p = 0.05$ ) which was the only internal correlation for the film. Stimulus Film 3 also demonstrated an internal correlation between the evaluative and activity dimensions,  $r = 0.3242$  ( $p = 0.02$ ) and between the potency and activity dimensions,  $r = 0.2741$  ( $p = 0.04$ ).

For the Americans, there were six significant correlations among the dimensions of the three stimulus films. The evaluative dimensions of Stimulus Films 1 and 2 were correlated at an  $r$  value of 0.4628 ( $p = 0.001$ ) and the potency dimensions of the same films were reported at  $r = 0.2801$  ( $p = 0.04$ ). The potency dimension of Stimulus Film 1 and the evaluative dimension of Stimulus Film 2 were negatively correlated,  $r = -0.2561$ . Negative correlations were found between the activity dimension of Film 3 and the potency dimension of Stimulus Film 2,  $r = -0.3131$ . The activity dimension of Stimulus Film 3 and the activity dimension of Stimulus Film 2 were also negatively correlated,  $r = -0.4662$ .

Stimulus Films 1 and 3 were positively correlated in a number of dimensions. The evaluative dimension of Stimulus Film 1 positively correlated ( $p = 0.01$ ) with both the potency,  $r = 0.3701$ , and the activity,  $r = 0.3573$ , dimensions of film 3. The evaluative dimension of Stimulus Film 3 also correlated with the activity dimension of film 1,  $r = 0.3445$  ( $p = 0.01$ ). The potency dimension of Stimulus Film 1 was related to the activity dimension of Stimulus Film 3,  $r = 0.2919$  ( $p = 0.03$ ). Each of the correlations are significant to  $0.05$  level of probability.

In addition to the relationships between dimensions of different films, Stimulus Film 1 responses were positively correlated for the potency and activity dimension,  $r = 0.3455$  ( $p = 0.01$ ). Stimulus Film 2 data revealed a correlation between potency and activity,  $r = 0.3925$  ( $p = 0.01$ ). Stimulus Film 3 analysis also revealed a correlation between the potency and activity dimensions,  $r = 0.6305$  ( $p = 0.000$ ). For the Americans, there were correlations between the potency and activity dimensions of each film.

The data analysis of the Asian responses revealed a correlation between the evaluative dimension of film 1 and the evaluative dimension of film 2,  $r = 0.4780$  ( $p = 0.001$ ). The evaluative dimension of film 1 was also positively correlated to the potency of film 2,  $r = 0.447$  ( $p = 0.000$ ) and to the activity of film 3,  $r = 0.4603$  ( $p = 0.001$ ). The evaluative dimensions of film 3 correlated with the potency of film 1,  $r = 0.3462$  ( $p = 0.01$ ).

There were three correlations reported between dimensions of the same film for the Asians. The evaluative and the activity dimension of film 1 were correlated,  $r = 0.3722$ , to a level of 0.01 significance. In Stimulus Film 2, the evaluative dimension was correlated with both the potency and the activity dimension,  $r = 0.3196$  ( $p = 0.02$ ) and  $r = 0.442$  ( $p = 0.002$ ) respectively. There were no correlations between any of the dimensions of Stimulus Film 3. There were also no negatively related correlations among the Asian responses.

#### Title As a Perceptual Cue

An analysis of covariance for the title/no title variable was computed to answer the question: How does the use of a title, as a perceptual cue, affect the group's perceptions? The main effect of title as well as age, sex and education was investigated. Results are presented in Table 16. The perceptions of film 1 were significantly different for the title,  $F = 7.115$  ( $p = 0.0019$ ), and age,  $F = 4.741$  ( $p = 0.031$ ), when all cultural groups were considered. The results indicated that sex as a variable was not significant, but the main effect of title was. For the title variable, an  $F$  value of 7.838 ( $p = 0.006$ ) was obtained. The results of education as a variable indicated that education,  $F = 5.700$  ( $p = 0.019$ ), and the title variable,  $F = 7.324$  ( $p = 0.008$ ), were both statistically significant.

There were no significantly different  $F$ -ratios in the responses to film 2. Film 3 results indicated that age as a variable was



Table 16  
 Analysis of Covariance: Title

	Stimulus Film 1		Stimulus Film 2		Stimulus Film 3	
	F	p	F	p	F	p
Covariate/AGE	4.741	0.031	0.042	0.838	5.600	0.020
Main Effect/TITLE	7.115	<u>0.009</u>	0.000	0.988	2.870	<u>0.093</u>
Covariate/SEX	3.641	0.059	0.654	0.420	1.297	0.257
Main Effect/TITLE	7.838	<u>0.006</u>	0.018	0.894	2.838	0.095
Covariate/EDUCATION	5.700	0.019	0.166	0.684	5.758	0.018
Main Effect/TITLE	7.324	<u>0.008</u>	0.003	0.957	2.932	<u>0.089</u>

significant,  $F = 5.600$  ( $p = 0.02$ ). Education was also significant,  $F = 5.758$  ( $p = 0.018$ ), but title as a main effect was not. The specific nature of the obtained differences is unclear since the scoring of the scales generates a summary number for each dimension. The five analyses of all the relationships among responses within each culture did not provide any insights into patterns that might be further tied to the role of culture in perception of modern dance films.

#### Cultural Group Preference

The question of a preference for one film over another was determined by the tabulation of the mean values for each dimension of each film. In Table 2, the values appear for each cultural group for each film. The bipolar terms were designated as positive or negative in polarity. Positive responses were those that fall between the neutral 4 position and the 7 position on the scales. Mean values of 60 or more indicated a positive reaction and 44 or less a negative reaction. The reverse is true for the lower end of the scale. The criteria values are:

Extremely like	105-90
Quite like	89-75
Slightly like	74-60
Equally like	59-45
Slightly like	44-30
Quite like	29-15
Extremely like	14-1

Utilizing these criteria, one observes that the Africans responded positively to Stimulus Film 2, "Fixation," but were neutral in their

reaction to Stimulus Film 1 and 3. The Americans exhibited preferences for Stimulus Film 1 and 2 and were neutral for film 3. The Asians were positive in their reactions to Stimulus Film 2, but neutral about the other two. The least positive mean score was revealed by the Asians for Stimulus Film 3, "First Love."

#### Summary

The data indicate that determining the factors which influence an individual's perception of a modern dance is not explained by precise statistical analysis of the obtained data. Variables such as the culture, sex, age, education, experience or title did not account for substantive findings. An analysis of all of the correlations among population responses on the 15 bipolar scales also failed to demonstrate any discernible patterns. An inspection of the plotted means presented in Figures 1, 2, and 3 reveals that the groups are not very different in their perceptions of the films. In fact, the responses tend to be in the same direction away from the neutral center. The only bipolar scale where this was not true was the excitable/calm pair from the activity dimension of Stimulus Film 1, "Disc." On this scale, the Americans perceived the film as somewhat excitable and the Africans as somewhat calm. This was one instance in which possible cultural difference in perception was suggested. It should also be acknowledged that given the number of analyses undertaken, the significance could be one of chance.

Computation of the D-statistic as recommended by Osgood, et al., (1957), indicated that the semantic space of the three films was

close when comparing the groups. Although the correlations presented in Table 6 are not all strong, they are supportive of the idea that perceptions of the three groups are more similar than different.

An inspection of the correlations presented in Tables 13, 14, and 15 indicated that there were relatively few significant correlations among the different semantic dimensions of the films when one considers the total number of possible relationships.

The results concerning similarities and differences were also not definitive. For film 1, the groups were most similar in their perceptions when considered by sex, age, education and experience categories. For the factors of culture and title, the responses were decidedly different.

In Stimulus Film 2, the groups were most similar in responses for the sex and education variables. Culture was less important as a variable for perception. Less than 1/5 of the ratios were significantly different. In fact, all three groups were not very different in their responses.

Stimulus Film 3 also lacked a diversity of responses. The title/no title variable explained none of the variance for this film. None of the other variables explained conclusively the few variances found.

The ANCOVA computed for the variables indicated that culture was a significant variable in the title, education, sex and age

considerations of film 1 only. Such a finding for a stimulus of an abstract nature was not unexpected. Failure to obtain a similar finding for films 2 and 3 underscores the critical element of the stimulus.

CHAPTER V  
DISCUSSION

One must acknowledge that at best the semantic differential has some limitations with respect to studying meaning. The latter construct is highly idiosyncratic. In the previous chapter, all of the findings were described with strict adherence to the idea of semantic space as conceptualized by Osgood and his associates and the permissible interpretations of statistical values as they relate to semantic space. In an attempt not to violate assumptions underlying the semantic differential, each film was analyzed independently and each dimension, e.g., activity, potency and evaluative, was considered separately.

As a dancer, teacher and beginning researcher, the writer's interests and concerns--above and beyond the numerical results--warrant comment. The initial idea of examining cultural variables associated with viewing dance has not been diminished by the present inquiry in spite of the unclear findings. Three predominant themes persist: (a) meaning as it is conveyed by art objects, specifically, dance, (b) the act of communication in dance, and (c) the implications of modern dance in cross-cultural communication. These are addressed briefly in the following text.

### Meaning as Conveyed by Modern Dance

The semantic differential technique provides the researcher with an objective tool to facilitate the connotational comparison of a meaning by quantitative means. By identifying the position of meaning in semantic space through the computation of the D-statistic, similarities and differences in the perceptions of the three cultural groups were explored. The findings of this study revealed that although the groups were similar in their perceptions of Stimulus Film 2 and Stimulus Film 3, they were significantly different in their perception of Stimulus Film 1. Specifically, the Americans differed from both the Africans and Asians.

One explanation for the identification of differences for only one of the three films may be related to choreographic content. Both film 1 and film 2 were examples of nonliteral modern dance; the three groups were similar in their perceptions of one (film 2, "Fixation"), but not of the other (film 1, "Disc"). Both films reflected the choreographer's interest in motion, not emotion as stated in the filmed interview. Conceptually, both films were abstract in nature. The one difference was that in film 2 the dancer appeared more human than in film 1.

The analysis of variance for film 1 indicated that the groups were similar in their perceptions in the evaluative dimension, i.e., word pairs obvious/subtle, beautiful/ugly, controlled/accidental, rough/smooth, and bad/good. The clear differences occurred in their perception of the dance as defined by the adjectives; weak/strong,

feminine/masculine, soft/hard, gentle/violent, serious/humorous, emotional/rational, slow/fast, vibrant/still, passive/active, and excitable/calm. A possible explanation of the differing perceptions is inherent in the ambiguous nature of the art object.

Movements take on meaning from a repertoire of life experiences. Meanings purportedly reflect the values of the culture that produces them as well as the individual's experiences within the culture. From all that one sees and senses in relation to the interactions with those in day-to-day existence, we establish meaning. It is identified by postures, gestures, twists, tilts and even breathing patterns.

Emotions become associated with movement patterns. For example, a viewed movement can trigger the proprioceptive mechanisms, and an emotion is relived. Memory recalls not only the shape of the body in motion, but also the rhythmic structure and the temporal relationships within and among the movements.

Meaning is, thus, intrinsically tied to the cultural milieu. Meaning, when examined in the modern dance idiom, is a nebulous entity. The mechanisms of the perceptual process indicate that an observer, when presented with any stimulus, attempts to interpret what the stimulus means. The interpretation is dependent upon previous experiences with a similar stimulus. The same is so when one views a dance. Ellfeldt (1976) remarked:

Individual movements have no significance in themselves; they are not signs which denote things, nor are they signals calling for a particular response. Rather they



are materials for evoking, awakening, or stimulating the viewer in an essentially nonverbal way. It is the formulation, the interaction, dynamics, and rhythm of the movement which results in a symbolic image that is presented for the viewer's perception. (p. 187)

Choreographers acknowledge that frequently the audience interpretation is quite different from the original intention. The significance of the event is its arousal of the viewer and the subsequent recognition of a meaning. Although some choreographers concede that their dances have meaning, others prefer that the dance be rather than mean. This attitude is consistent with a phenomenologic approach to art and stresses intuitive rather than cognitive appreciation of the art experience. In response to the phenomenologic position, Sorell (1971) observed that:

...the most nonobjective, impersonalized, non-literal work of art is an abstraction of some realized experience, because all art...is an abstraction of extraction of life and transcends the actuality of happenings or the happening of the artist's visualization of a reality.  
(p. 13)

Stimulus Film 1 was choreographed by an American. It is possible to speculate that because of cultural experiences unique to the American life style, the perceptions of the non-Americans differed from the Americans. An explanation as to why they differ can only be conjectured. The present study made no attempt to investigate why particular meanings were discerned. Both the Asians and Africans represent Third World, developing countries. They have not moved into the heavily mechanized existence of industrialization. Thus, the concept of the repetitive, driving, nature of machines is outside their experiences. The extent to which such specific

meaning could possibly be conveyed in dance is totally beyond connotational comparison as an investigative technique.

#### Dance as Communication

Although the problem under investigation and the strategies utilized relate broadly to the topic of dance and communication, there are numerous additional considerations that need to be weighed. These were not a specific part of the research, but they underscore the complexity of the communicative process in dance. Moreover, they offer a suggestion about the range and direction of meanings that was obtained from the subjects who participated in the present research.

One function of all art including modern dance is communication, the transferring of the inner vision from the artist to the viewer. The art object in modern dance is the choreographic form. It is the bearer of the artist's message. Hall (1966) stated:

It is the artist's task to remove obstacles that stand between his audience and the event he describes. In so doing, he abstracts from nature those parts which, if properly organized, can stand for the whole and constitute a more forceful, uncluttered statement than the layman might make for himself. (p. 74)

A dance is a metaphor formed by the choreographer to be shared with a viewer. It is the end product of a selective process. The choreographer manipulates the material, and the dance becomes "...a symbolic form which reveals the creator's inner vision" (Best, 1974, p. 36).

The capacity for communication in dance comes from the use of the human body as an instrument and movement as the medium. Specific details are not communicated; rather, ideas with numerous possibilities for interpretation are conveyed. According to Turner (1963), the choreographer weaves the elements of balance, climax, contrast, harmony, repetition, sequence, transition, unity and variety into a presentational form. The act of communication is realized only if the form evokes an affective state for the viewer (Smith, 1966). The artist can select and present as many insights, experiences, or intuitions as he/she wishes, but until the viewer, who receives the stimulation, formulates an interpretation of the art object, there is no communication.

There is the implied use of a shared code that is utilized by the encoder to transmit information to the decoder in the act of communication. There are many signs that convey information to the receiver, but are not recognized as formal symbols. Gestures are signs, that is movement symbols, for concepts formulated in a nonverbal mode. Thus, movements are the signs which transmit the choreographer's message in dance.

It is within the highly idiosyncratic perceptual act that the variety of interpretations of art objects occur. That is to say, at the instant a particular percept is formed by the viewer, communication occurs. One may associate this with the moment of intuition identified by Sheets (1966) as the "prereflective" state of comprehension. It is a sense of significance, whether order, logic,

understanding, or recognition that is comprehended by the viewer as a result of the processing of the stimuli.

The perceptual act is dependent on both the psychological and physiological characteristics of the perceiver as well as on the stimulus. Personality, attitudes, emotional factors, experience and expectation are possible variables within the individual's perceptual style. Cole and Scribner (1974) observed that:

Perception, memory, and thinking all develop as a part of the general socialization of a child and are inseparably bound up with the patterns of the activity, communication and social relations into which he enters ... His every experience has been shaped by the culture of which he is a member and is infused with socially defined meanings and emotions. (p. 8)

Experience can provide expectations which influence the perception of movement.

Previous experience influences all cue selection for the individual. The cue selected, in effect, shortens the perceptual act in that there is an expected or anticipated outcome. Cues take many forms but always reflect individual preferences. Titles of all kinds may be used to create a mental set and in so doing, increase the probability that specific interpretation is made (Gombrich, 1977). Sorell (1971, 1980) proposed that titles of art works are a means of identification which facilitate communication through thought orientation.

To discuss dance as a visual art with respect to the perceptual act calls for some gross generalizing. The viewer perceives the art object primarily through the visual senses. First, the total

configuration is grasped, then there is recognition of shape, size, color and pattern. Until the viewer is cognizant of the expressive nature of the object, there is only visual stimulation.

Langer (1953) stated, "...what art expresses is not actual feelings but ideas of feelings" (p. 59). This suggests that when confronted with an expressive art form, the perceptual act is the means by which the viewer apprehends the ideas of the feelings conveyed. Arnheim (1960) explained that the judgement of meaning, relevance, and truth in art is "...accomplished largely by the mysterious capacity of feeling" (p. 315). The feelings experienced are reflective of the convictions, values, biases, memories, and preferences of the individual and indicative of human values which go beyond physical survival. Art is aptly defined by the Hebrew word "amanut," a sense of knowing.

Explaining dance as art, Langer (1957) observed:

A dance, like any other work of art, is a perceptible form that expresses the nature of human feeling--the rhythms and connections, crises and breaks, the complexity and richness of what is sometimes called man's "inner life," the stream of direct experiences, life as it feels to the living. (p. 343)

Sorell (1979) observed that art "... can only grow out of an experience and can only live when that experience is shared" (p. 17). Dimonstein (Haberser and Meisel, 1970) stated, "in the arts, the experience (the interaction of the individual and his environment) is one of participation and communication by means of the senses" (p. 15). To share the experience, the individuals "... observe

the external action or work of art and infer from that the inner emotional state that caused it" Sorell, (p. 17).

Thus, inner vision, presentational form, individual perceptual style and the art experience should be considered to be a part of the meaning assigned to one's observation of dance. The relative importance of these is unknown. One obvious shortcoming of the present study was the disregard of these communicative "components." It was, perhaps, presumptuous to design a study of this nature without considering these important elements.

#### Implications

The research implications are clear. In order to study meaning as it pertains to viewing modern dance, objective methods such as that used in the present study should be supplemented by qualitative and hermeneutic strategies. For example, an interview could be conducted with questions designed to help discover the subject's individual perceptual style. Such data could supplement semantic differential responses. Open-ended questionnaires, thinking aloud, and other such techniques might be employed to help provide clues about denotational meaning. Greater homogeneity among subjects would possibly yield data from which more inferences could be drawn. Finally, matched samples might be needed to compare the effects of variables that cannot be manipulated on an alternating basis without contaminating the responses. All of the aforementioned pertain, specifically, to methodological implications.

One conceptual idea deserves consideration. The notion of biologic unity was a factor in the decision to conduct this study. The personal excitement generated by the idea served as a stimulus for the researcher's early, albeit naive, decision to investigate the potential of dance to be perceived either similarly or differently across cultures. Darwin's (1872) early observations of certain universal nonverbal behaviors and Ebil-Eibesfeldt's (1974, 1975, 1976) subsequent empirical support for such behaviors were strong influences in the appeal to carry out this study.

Regrettably, the design did not accommodate the construct of biologic unity in any way. Such study is yet to be undertaken. Perhaps a future investigation of some common element, across cultures, in the decoding process would shed light on the idea of biologic unity. Admittedly such a common element would first have to be identified.

One last implication deserving comment relates neither to research method nor to what might be studied by dance scholars. It is a very personal point of view that relates to dance education in higher education.

As dance educators, we need to do more than rely on intuition to be a part of the community of scholars.

What is to be learned in and from the arts is far from clear because the nature of the aesthetic experience, the artistic object, the aesthetic attitude, and the work of art is still in controversy. (Madeja, 1978, p. 22)

These questions can only be answered by continued investigation by those who are active in the field of study.

There is support for the idea that dance is more than an instinctive ineffable process and that dance is invaluable in the education of all students. Arnheim argued that "...perception is cognitive, it is 'visual thinking'..." (p. 23). Best (1974) stated that "...to appreciate a work of art requires a conceptual ability, the more complex the interpretation required, the greater the intellectual demand" (p. 175). Concepts are formulated as a result of perceptual stimulation and require the utilization of the individual's capacity for reason. The more abstract the stimulus, the more taxing the consideration. Certainly, this supports the inclusion of dance in the educative process as a significant contributor to the development of the individual.

Reportedly, H'Doubler said, "Science cannot make an art, but it can make for a more truthful art" (Fallon, 1978, p. 17). Is that what dance--as an academic discipline in higher education--is all about? Is it not the responsibility of dance educators to contribute to the growing body of knowledge of dance? Should we study dance in such ways as to come to know more about it as both an art and as cultural behavior?

For the writer, now near the termination of finalizing a first formal research report, there is a renewed commitment to her role as a dance educator. It is clear that knowing and knowledge is central to being an educator. Teaching is, after all, far more than being an example. The entire educational process is based on reasoning. The challenge to the educator is to refine that process.



CHAPTER VI  
SUMMARY AND CONCLUSIONS

Purpose

The purpose of this investigation was to examine the perceptions of three cultural groups to three different dance stimuli. The study specifically sought to answer the following questions.

1. Do members of the same cultural group share common perceptions of meaning when confronted with the same dance stimulus?
2. How do the meanings perceived by the three cultural groups compare with respect to similarities and differences?  
How do age, sex and education affect perceived meanings?  
Does prior dance experience relate to perceived meaning of dance stimuli?
3. How does the use of a title, as a perceptual cue, affect the groups' perceptions?
4. Was any preference for one dance over another discernible when cultural group was considered?

Procedures

Literature Review

A review of the related literature provided scant information relating to dance as communication. Three additional areas provided insight into the topic: (a) the communicative aspects of nonverbal

behavior, (b) biologic unity as an explanation of cross-cultural meaning, and (c) the use of the semantic differential to measure the affective domain.

#### Selection of Sample

The study sample included 124 females and males from the International School of Tanganyika, Ltd., community. They represented three cultural groups under investigation. The volunteers viewed three stimuli films and responded to the semantic differential scales which were constructed from cohort responses to a previous film. The three groups investigated were Africans, Americans, and Asians.

#### Data Collection

The data were collected during the first term of the 1981-82 school year at IST. The investigator showed the three films in alternating order a total of eight times. Roughly one half of the subjects viewed the dances with a title which was provided by the choreographer. Each subject viewed and responded to three different dances. The presentations were made at the school campus.

#### Data Analysis

The data were initially analysed using Osgood's D-statistic. Pearson correlation coefficients were computed by semantic dimension for each dance. An analysis of variance was computed for the variables of culture, age, sex, education, experience and title.

The results indicated that for Stimulus Film 1, the potency and activity dimensions demonstrated marked differences among the groups. Therefore, a Scheffé S test was computed. An analysis of covariance was also computed for the specified variables.

### Conclusions

Initially, four framing questions were specified to serve as a structure for this inquiry. The findings suggest the following conclusions for the study.

1. Do members of the same cultural group share common perceptions of meaning when confronted with the same dance stimulus?

The question is not answerable when all three stimulus films are considered together. For the Americans, there were nine significant correlations from among 36 obtained coefficients. For Asians, there were four correlations. One significant correlation was obtained for the Africans.

Considering each film individually, the Africans were most similar in their perceptions of film 1 and film 2. The data revealed no common perceptions as represented by significant correlations for film 2. This indicates that there was a great variation in individual's perception of this dance.

The overall results reveal that similarities in perception within a cultural group are a function of the nature of the stimulus film. That is to say, culture alone, at least for this research, was not related to the interpretations of modern dance films.

2. How do the meanings perceived by the three cultural groups compare with respect to similarities and differences?

Analysis of the semantic space specified by each of the three groups for each film indicates that the groups are more similar in their perceptions than they are different on films 2 and 3. These two films were decidedly different in nature. Film 2 presents a single male dancer. The choreographic content is focused on motion and the dance devoid of any overt emotional display. Film 3, in contrast is a love duet emphasizing the emotional relationship between two people.

Film 1 is the enigma of the three. More differences were revealed among the groups on this film than on any other. The non-literal nature of the choreography allowed the individuals to draw diverse conclusions as to the meaning. There were distinct differences between the Americans and Africans in their perceptions. This was particularly evident in the potency dimension.

3. How do age, sex, and education affect perceived meaning? Does prior dance experience relate to perceived meaning?

The diversity that exists among the subjects within each group does not justify drawing a conclusion from the data. In the Asian and American groups there was a wide range in age and experience, but the African group was more homogeneous in both variables.

For film 1, the use of a title and cultural background explained the majority of the variance. For film 2 and 3 this did not exist.

Sex was the most significant variable in perceptions of film 3. This film was of the love duet. Sex followed by cultural background explained most of the variance. The importance of the stimulus is, however, reiterated again in the interpretation of the findings.

4. Was any preference for one dance over another discernible when cultural group was considered?

Inferences from semantic differential values reveal that the Africans demonstrated a preference for the solo male performance of "Fixation." The Asians also preferred this dance. The Americans indicated equal preference for both the nonliteral dance, "Disc" and also "Fixation," film 2. None of the groups preferred the love duet, film 3.

Although no clear cut implications can be drawn from the above responses, the role of culture in the interpretation of modern dance continues to be a viable research focus for dance educators. Possible alternative strategies would provide added information to what is known about the communicative value of dance. For the serious dance scholar, infinite research challenges exist.

## BIBLIOGRAPHY

- Aldrich, V. C. Philosophy of art. Englewood Cliffs, N.J.: Prentice-Hall, 1963.
- Al-Issa, I., & Dennis, W. (Eds.). Cross-cultural studies of behavior. New York: Holt, Rinehart & Winston, 1970.
- Allen, J. Responses to abstracted movement patterns represented in visual form. Unpublished paper presented to Aileene Lockhart, University of Southern California, 1967.
- Alliance for Arts Education. Arts education advocacy. Washington, D.C.: Dept. of Health, Education and Welfare, 1976. (U.S. Office of Education, Contract No. 300-75-0133).
- Allport, G., & Pettigrew, R. The trapezoidal illusion among Zulus. In I. Al Issa & W. Dennis (Eds.), Cross-cultural studies of behavior. New York: Holt, Rinehart & Winston, 1970.
- Anderson, J. The modern dance. In C. Steinberg (Ed.), The Dance Anthology. New York: New American Library, 1980.
- Arnheim, R. Art and visual perception. Berkeley: University of California Press, 1960.
- Arnheim, R. Visual thinking. Berkeley: University of California Press, 1969.
- Bateson, A. The message: This is play. In A. Scheflen (Ed.), Group Processes (Vol. 2). New York: Prentice-Hall, 1955.
- Batten, J. Human procedures in educational research (2nd ed.). Greenville, N.C.: Morgan Printers, Inc., 1973.
- Beardsley, M. Aesthetics from classical Greece to the present. New York: Macmillan, 1966.
- Benne, K. D. Art education as the development of human resources: Art education today. New York: Columbia University, 1948.
- Berlyne, D. (Ed.). Studies in the new experimental aesthetics. New York: John Wiley & Sons, 1974.

- Berlyne, D. E., Robbins, M. C., & Thompson, R. A cross-cultural study of exploratory and verbal responses to visual patterns varying in complexity. In D. E. Berlyne (Ed.), Studies in the new experimental aesthetics. New York: John Wiley, 1974.
- Bernstein, P. L. Theory and methods in dance-movement therapy. Dubuque, Iowa: Kendall/Hunt, 1975. (Originally Published, 1972.)
- Best, D. Expression in movement and the arts. London: Lepus Books, 1974.
- Birdwhistell, R. The kinesic level of the investigation of the emotions. In P. Knapp (Ed.), Symposium on expression of the emotions in man. New York: International University Press, 1963.
- Birdwhistell, R. Kinesics and context: Essays on body motion communication. Philadelphia: University of Pennsylvania Press, 1970.
- Bourne, L. E., Dcminowski, R. C., & Loftus, E. F. Cognitive processes. Englewood Cliffs, New Jersey: Prentice-Hall, 1979.
- Brown, B. Training to dance with Erick Hawkins. Dance Scope, 1971, 6, 5-12.
- Brown, J. M. (Ed.). The vision of modern dance. Princeton, New Jersey: Princeton Book Company, 1979.
- Brooker, J. D., & Whiting, H. T. Human movement: A field of study. Lafayette, Indiana: Balt, 1972.
- Buss, A. R., & Royce, J. R. Detecting cross-cultural commonalities and differences: Intergroup factor analysis. Psychological Bulletin, 1975, 82, (1), 128-136.
- Buhrer, N. Perceptions of "the woman athlete" and "the woman coach." Unpublished master's thesis, University of North Carolina at Greensboro, 1973.
- Chapple, E. Culture and biological man. New York: Holt, Rinehart and Winston, 1970.
- Chennakesavan, S. (Ed.). Perception. London: Asia Publishing House, 1966.
- Cherry, C. On human communication: A review, survey, and criticism (2nd ed.). Cambridge, Massachusetts: The M.I.T. Press, 1966.

- Child, I. Personal preference as an expression of aesthetic sensitivity. Journal of Personality, 1962, 30, 496-512.
- Cole, M., & Gay, J. Culture and memory. American Anthropologist, 1972, 74, 1066-1084.
- Cole, M., Gay, J., Glisk, J. A., & Sharp, D. W. The cultural context of learning and thinking: An exploration in experimental anthropology. New York: Basic Books, 1971.
- Cole, M., & Scribner, S. Culture and thought: A psychological introduction. New York: John Wiley & Sons, Inc., 1974.
- Cranbach, L. Essentials of psychological testing (2nd ed.). New York: Harper & Row, 1960.
- Dance as Education. Washington, D.C.: National Dance Association, 1977.
- Darwin, C. The expression of emotions in man and animals. New York: Philosophical Press, 1955. (Originally published, 1872.)
- Dasen, P. Cross-cultural Piagetian research: A summary. Journal of Cross-Cultural Psychology, 1972, 3, 23-39.
- Davis, F. Inside intuition: What we know about nonverbal communication. New York: McGraw, 1973.
- Davis, M. Towards understanding the intrinsic in body movement. New York: Aron Press, 1975.
- Davis, R. What we know about nonverbal communication. C.O.R.D., 1975, 7.
- Dittman, A. T., Parloff, M. B., & Boomer, D. S. Facial and bodily expression: A study of receptivity of emotional cues. Psychiatry, 1965, 28, 239-244.
- Dewey, J. Art as expression. New York: Capricorn Books, 1958.
- Duncan, S., Jr. Nonverbal communication. Psychological Bulletin, 1969, 72, 118-137.
- Eibl-Eibesfeldt, I. The expressive behavior of the deaf and blind born. In M. von Cranback & I. Vine (Eds.), Social communication and movement: Studies of interaction and expression in man and chimpanzee. London: Academic Press, 1974.



- Eibl-Eibesfeldt, I. Ethology, the biology of behavior. New York: Holt, Rinehart, & Winston, 1975.
- Eibl-Eibesfeldt, I. Universals in human expressive behavior. In A. Wolfgang (Ed.), Nonverbal behavior: Applications and cultural implications. New York: Academic Press, 1979.
- Eisner, E. On the differences between scientific and artistic approaches to qualitative research. Educational Researcher, 1981, 10 (4), 5-9.
- Ekman, P. Communication through nonverbal behavior: A source of information about an interpersonal relationship. In S. Tomkins & C. Izard, (Eds.), Affect, Cognition and Personality. New York: Spring Press, 1965.
- Ekman, P. (Ed.). Darwin and facial expression: A century of research in review. New York: Academic Press, 1973.
- Ekman, P., & Friesen, W. Constants across cultures in the face and emotion. Journal of Personality and Social Psychology, 1971, 17, 124-129.
- Ekman, P., Friesen, W., & Ellesworth, P. Emotion in the human face: Guidelines for research and integration of findings. New York: Pergamon, 1972.
- Ekman, P., Sorensen, R., & Friesen, W. Pan-cultural elements in facial displays of emotion. Science, 1969, 164, 86-88.
- Ellfeldt, L. Dance from magic to art. Dubuque, Iowa: Wm. C. Brown, 1976.
- Fallon, D. (Ed.). Encores for dance. Washington, D.C.: The National Dance Association of the American Alliance for Health, Physical Education, and Recreation, 1978.
- Feldenkrais, M. Awareness through movement: Health exercises for personal growth. New York: Harper & Row, 1972.
- Fischer, J. Art styles as cognitive maps. American Anthropologist 1961, 63, 79-83.
- Fisher, S. Body consciousness: You are what you feel. Englewood Cliffs, New Jersey: Prentice-Hall, 1973.
- Ford, C., Prothro, T., & Child, I. Some transcultural comparisons of esthetic judgement. The Journal of Social Psychology, 1966, 68, 19-26.

- Fujita, B., Harper, R., & Wiens, A. Encoding-decoding of nonverbal emotional messages: Sex differences in spontaneous and enacted expressions. Journal of Nonverbal Behavior, 1980, 4, 131-145.
- Fulcher, J. "Voluntary" facial expression in blind and seeing children. Archives of Psychology, 1942, 272, 5-49.
- Gates, A. A new look at movement: A dancer's view. Minneapolis, Minnesota: Burgess, 1968.
- Ghiselin, M. The triumph of Darwinian method. Berkeley: University of California Press, 1969.
- Godkewitsch, M. Correlates of humor: Verbal and nonverbal aesthetic reactions as functions of semantic distance within adjective-noun pairs. In D. E. Berlyne (Ed.), Studies in the new experimental aesthetics. New York: Wiley, 1974.
- Gombrich, E. Art and illusion: A study in the psychology of pictorial representation. London: Phaidon Press, 1977.
- Goodenough, F. Expressions of emotions in a blind-deaf child. Journal of Abnormal Social Psychology, 1932, 27, 328-333.
- Griffin, P. Perception of women's roles and female sport involvement among a selected sample of college students. Unpublished master's thesis, University of Massachusetts, 1972.
- Haberman, M., & Meisel, T. (Eds.). Dance: An art in academe. New York: Teachers College Press, 1970.
- Hair, J. H., Anderson, R. E., Tatham, R. L., & Grablowsky, B. J. Multivariate data analysis. Tulsa, Oklahoma: Petroleum, 1979.
- Hall, E. The silent language. New York: Doubleday, 1959.
- Hall, E. The hidden dimension. Garden City, New York: Doubleday, 1966.
- Hanna, J. The anthropology of the body. C.O.R.D., 1975, 7(2), 39-43.
- Hanna, J. To dance is human. Austin: University of Texas Press, 1979.

- Hays, J. Effect of two regulated changes of tempo upon emotional connotations in dance. Research Quarterly, 1967, 38 (2), 389-397.
- Hayes, E. R. Dance composition and production. New York: The Ronald Press Company, 1955.
- H'Doubler, M. Movement and its rhythmic structure. Madison, Wisconsin: Kramer Business Service, 1946.
- H'Doubler, M. Dance: A creative art experience. Madison: University of Wisconsin Press, 1962.
- Hevner, K. Experimental studies of the elements of expression in music. American Journal of Psychology, 1936, 48, 246-286.
- Highwater, J. Dance: Rituals of experience. New York: A & W Publishers, Inc., 1978.
- Humphrey, D. The art of making dances. New York: Grove Press, Inc., 1959.
- Isaac, S., & Michael, W. Handbook in research and evaluation. San Diego, California: Edits Publishers, 1971.
- Izard, C. The face of emotion. New York: Appleton-Century-Crofts, 1971.
- Izard, C. Human emotions. New York: Plenum Press, 1977.
- Jerome, S. Aesthetics. New York: Macmillan, 1965.
- Kealiinohomoku, J. W. Theory and methods for anthropological study of dance. Unpublished doctoral dissertation, Indiana University, 1976.
- Kerlinger, F. Foundations of behavioral research (2nd ed.). New York: Holt, 1973.
- Key, M. R. Paralanguage and kinesics. Metuchen, N.J.: The Scarecrow Press, Inc., 1975.
- Kraus, R. History of the dance in art and education. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.
- Krause, J. H. The nature of art. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1979.

- Kumata, H., & Schramm, W. A pilot study of cross-cultural meaning. Public Opinion Quarterly, 1956, 20, 229-238.
- La Barre, W. The cultural basis of emotion and gesture. Journal of Personality, 1947, 16, 49-68.
- Lange, R. The nature of dance: An anthropological perspective. London: Macdonald & Evans, 1975.
- Langer, S. K. Feelings and form. London: Routledge & Kegan Paul, 1953.
- Langer, S. K. Problems of art. New York: Scribner, 1957.
- Lawlor, M. Cultural influences on preferences for designs. Journal of Abnormal and Social Psychology, 195561, 690-692.
- Lindzey, G. Projective techniques and cross-cultural research. New York: Appleton-Century-Crofts, 1961.
- Little, A. (Ed.). Dance as learning. Reston, Virginia: National Dance Association, 1979.
- Litvinoff, V. The use of Stanislavsky within modern dance. New York: American Dance Guild, 1972.
- Lorber, R. (Ed.). Erick Hawkins: Theory and training. New York: American Dance Guild, 1979.
- Lowen, A. The language of the body. New York: Collier, 1971.
- Madeja, S. (Ed.). The arts, cognition, and basic skill. St. Louis: Cemrel, 1978.
- McDonagh, D. The complete guide to modern dance. Garden City, New York: Doubleday, 1976.
- McElroy, W. A. Aesthetic appreciation in aborigines of Arnhem Land: A comparative experimental study. Oceania, 1952, 23, 81-94.
- Merriam, A. P. Anthropology and the dance. C.O.R.D., 1972, 6, 9-29.
- Metheny, E. Connotations of movement in sport and dance. Dubuque, Iowa: Wm. C. Brown, 1965.

- Metheny, E. Movement and meaning. New York: McGraw-Hill, 1968.
- Meyer, L. The end of the Renaissance? The Hudson Review, 1963, 16, 169-187.
- Miller, G. The psychology of communications. New York: Basic Books, 1967.
- Morris, C. Signs, language, and behavior. New York: Prentice-Hall, Inc., 1946.
- Morris, D. The naked ape: A zoologist's study of the human animal New York: McGraw-Hill, 1967.
- Mukejee, R. The social function of art. Westport, Connecticut: Greenwood Press, Inc., 1971. (Originally published, 1954.)
- Neff, W. A critical investigation of the visual apprehension of movement. American Journal of Psychology, 1936, 48, 1-42.
- New Comb, T. M. An approach to the study of communicative acts. Psychological Review, 1953, 60 (6), 393-404.
- Odbert, H., Karwoski, T., & Eckerson, A. Studies in synesthetic thinking: I. Musical and verbal associations of color and mood. The Journal of General Psychology, 1942, 26, 153-173.
- Osgood, C. E. The nature and measurement of meaning. Psychological Bulletin, 1952, 49, 197-237.
- Osgood, C. E. Semantic differential technique in the comparative study of cultures. American Anthropologist, 1964, 66 (3), 171-199.
- Osgood, C.E., May, W., & Miron, M. Cross-cultural universals of affective meaning. Urbana: University of Illinois Press, 1975.
- Osgood, C.E., & Suci, G.J. A measure of relation determined by both mean difference and profile information. Psychological Bulletin, 1952, 49, 251-262.
- Osgood, C.E., Suci, G.J., & Tannenbaum, G. The measurement of meaning. Urbana: University of Illinois Press, 1967. (Originally published, 1957.)
- Prost, J. Varieties of human posture. Human Biology, 1974, 46, 1-19. (a)

- Prost, J. An experiment of the physical anthropology of expressive gestures. In M. Leaf (Ed.), Frontiers of Anthropology. New York: Van Nostrand, 1974. (b)
- Redfern, H. B. Concepts in modern educational dance. London: Henry Kimpton, 1973.
- Reich, W. Character analysis. New York: Farrar, Straus, & Giroux, 1949.
- Riseborough, M. Physiographic gestures as decoding facilitators: Three experiments exploring a neglected facet of communication. Journal of Nonverbal Behavior, 1981, 5, 131-145.
- Royce, A. The anthropology of dance. Bloomington: Indiana University Press, 1977.
- Rosenthal, R. Experimenter effects in behavioral research. New York: Appleton-Century-Crofts, 1966.
- Ross, A. A theory of art. Albany: State University of New York Press, 1982.
- Ruszovan, V. Relationship between program goals and attitudes of instructor and students in general college physical education. Unpublished master's thesis, University of North Carolina at Greensboro, 1980.
- Schefflen, A. Body language and the social order. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.
- Schefflen, A. (Ed.). How behavior means. New York: Gordon & Breach, 1973.
- Schwartz, C., Fair, D., Greenburg, E., Freedman, F., & Klerman, G. Facial electromyography in the assessment of emotion. Psychophysiology, 1974, 11, 237-241.
- Sheets, M. The phenomenology of dance. Madison: The University of Wisconsin Press, 1966.
- Smith, A. Communication and culture. New York: Holt, Rinehart & Winston, 1966.
- Snider, J., & Osgood, C. Semantic differential technique: A sourcebook. Chicago: Aldine, 1962.

- Sorell, W. The dancer's image. New York: New American Library, 1980.
- Tannenbaum, P. H. The effect of background music on interpretation of stage and television drama. Audio-Visual Communications Review, 1956, pp. 121-133.
- Taylor, C. (Ed.). Creativity: Progress and potential. New York: McGraw-Hill, 1964.
- Thomas, C. E. Aesthetics and dance. Reston, Virginia: AAHPERD, 1980.
- Thompson, J. Development of facial expression of emotion in blind and seeing children. Archives of Psychology, 1941, 37, 5-47.
- Todd, M. E. The thinking body. New York: Dance Horizons, 1975. (Originally published, 1937.)
- Triandis, H. C., & Osgood, C. D. A comparative factorial analysis of semantic structures in monolingual Greek and American college students. Journal of Abnormal and Social Psychology, 1958, 57, 187-196.
- Tucker, W. Experiments in aesthetic communications. Unpublished doctoral dissertation, University of Illinois, 1955.
- Turner, M. A study of modern dance in relation to communication, choreographic structure, and elements of composition. Research Quarterly, 1963, 34, 219-227.
- Turner, M. Nonliteral modern dance: Its nature, forms and means of communication. Research Quarterly, 1965, 36, 86-95.
- Turner, M. New dance: Approaches to nonliteral choreography. Pittsburgh: Pittsburgh Press, 1971.
- Wallace, A. Individual differences and cultural uniformities. American Sociological Review, 1952, 17 (6), 747-750.
- Wallace, A. Culture and personality. New York: Random House, 1970. (Originally published, 1961.)
- Weismann, D. The visual arts as human experience. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.
- Wert, J., Neidt, C., & Ahmann, J. Statistical methods in educational and psychological research. New York: Appleton-Century-Crofts, 1954.

- Wiener, M., Devoe, S., Rubinow, W., & Geller, J. Nonverbal behavior and nonverbal communication. Psychological Review, 1972, 79 (3), 185-213.
- Wilson, E. The theater experience. New York: McGraw-Hill, 1980. (Originally published, 1976.)
- Woodall, W., & Burgoon, J. The effects of nonverbal synchrony on message comprehension and persuasiveness. Journal of Nonverbal Behavior, 1981, 5, 207-223.
- Wolfgang, A. (Ed.). Nonverbal behavior: Applications and cultural implications. New York: Academic Press, 1979



APPENDIX A  
INSTRUMENTATION

DIRECTION OF POLARITY  
AND DIMENSION OF THE SEMANTIC SPACE

- (E) obvious  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{subtle}$
- (E) beautiful  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{ugly}$
- (P) weak  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{strong}$
- (A) emotional  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{rational}$
- (A) slow  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{fast}$
- (P) feminine  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{masculine}$
- (A) vibrant  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{still}$
- (E) controlled  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{accidental}$
- (P) soft  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{hard}$
- (P) gentle  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{violent}$
- (A) passive  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{active}$
- (E) rough  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{smooth}$
- (P) serious  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{humorous}$
- (E) bad  $\frac{1}{1} : \frac{2}{2} : \frac{3}{3} : \frac{4}{4} : \frac{5}{5} : \frac{6}{6} : \frac{7}{7} : \text{good}$
- (A) excitable  $\frac{7}{7} : \frac{6}{6} : \frac{5}{5} : \frac{4}{4} : \frac{3}{3} : \frac{2}{2} : \frac{1}{1} : \text{calm}$

Note.- (E) = Evaluative Factor  
(P) = Potency Factor  
(A) = Activity Factor

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO  
SCHOOL OF HEALTH, PHYSICAL EDUCATION, RECREATION & DANCE

SCHOOL REVIEW COMMITTEE

INFORMED CONSENT FORM

I understand that the purpose of this study is to examine the Relationship Between the Interpretation of a Modern Dance Presentation and Cultural Background.

I confirm that my participation is entirely voluntary. No coercion of any kind has been used to obtain my cooperation.

I understand that I may withdraw my consent and terminate my participation at any time during the project.

I have been informed of the procedures that will be used in the project and understand what will be required of me as a subject.

I understand that all of my written responses will remain completely anonymous.

I understand that a summary of the results of the project will be made available to me at the completion of the study, if I so request.

I wish to give my voluntary cooperation as a participant.

\_\_\_\_\_  
signature

Do you request a  
summary of the results?

Yes \_\_\_\_\_ No \_\_\_\_\_

\_\_\_\_\_  
address

\_\_\_\_\_  
date

## DANCE INTERPRETATION INVENTORY

## INSTRUCTIONS

The purpose of this inventory is to measure the meaning for you of certain modern dance presentations. You will make a series of judgements using the descriptive scales provided. You are to respond according to what these things mean to you. There is a separate sheet for each of the dances that you are to judge. Please rate the dances in the order that they are given.

## HERE IS HOW YOU ARE TO USE THESE SCALES:

If you feel that your interpretation is very closely related to one end of the scale, you should place your check-mark as follows:

fair  $\frac{X}{1}$  :  $\frac{\quad}{2}$  :  $\frac{\quad}{3}$  :  $\frac{\quad}{4}$  :  $\frac{\quad}{5}$  :  $\frac{\quad}{6}$  :  $\frac{\quad}{7}$  : unfair  
or

fair  $\frac{\quad}{1}$  :  $\frac{\quad}{2}$  :  $\frac{\quad}{3}$  :  $\frac{\quad}{4}$  :  $\frac{\quad}{5}$  :  $\frac{\quad}{6}$  :  $\frac{X}{7}$  : unfair

If you feel that your interpretation is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

fair  $\frac{\quad}{1}$  :  $\frac{X}{2}$  :  $\frac{\quad}{3}$  :  $\frac{\quad}{4}$  :  $\frac{\quad}{5}$  :  $\frac{\quad}{6}$  :  $\frac{\quad}{7}$  : unfair  
or

fair  $\frac{\quad}{1}$  :  $\frac{\quad}{2}$  :  $\frac{\quad}{3}$  :  $\frac{\quad}{4}$  :  $\frac{\quad}{5}$  :  $\frac{X}{6}$  :  $\frac{\quad}{7}$  : unfair

If you feel that your interpretation is only slightly related to one side as opposed to the other side (but is not neutral), then you should check as follows:

fair  $\frac{\quad}{1}$  :  $\frac{\quad}{2}$  :  $\frac{X}{3}$  :  $\frac{\quad}{4}$  :  $\frac{\quad}{5}$  :  $\frac{\quad}{6}$  :  $\frac{\quad}{7}$  : unfair  
or

fair  $\frac{\quad}{1}$  :  $\frac{\quad}{2}$  :  $\frac{\quad}{3}$  :  $\frac{\quad}{4}$  :  $\frac{X}{5}$  :  $\frac{\quad}{6}$  :  $\frac{\quad}{7}$  : unfair

If you consider the concept to be neutral on the scale (that is, both sides of the scale seem equally associated with the concept), or if the scale makes no sense, (that is, it is unrelated to the concept), then you should place your check-mark in the middle space:

fair     :    :    :  X  :    :    :    : unfair  
           1      2      3      4      5      6      7

- REMEMBER: (1) Place your check-mark in the middle of spaces.  
 (2) Be sure you check every scale--do not omit any.  
 (3) Never put more than one check-mark on a single scale.  
 (4) The numbers under each scale are to assist in analysis of the data. You do not need to pay any attention to them.

Make each item a separate and independent judgement. Work at a fairly high speed through the test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items that we want. Please do not be careless because we want your true impressions.

PLEASE COMPLETE THE FOLLOWING QUESTIONS:

1. Your age: \_\_\_\_\_ years \_\_\_\_\_ months
2. Your sex: \_\_\_\_\_ female \_\_\_\_\_ male
3. Cultural Background: \_\_\_\_\_ African \_\_\_\_\_ American \_\_\_\_\_ Indian \_\_\_\_\_ Other
4. My home country is: \_\_\_\_\_.
5. I have lived in my home country for \_\_\_\_\_ years. I came to Tanzania in \_\_\_\_\_ (year).
6. My mother's cultural background is: \_\_\_\_\_.
7. My father's cultural background is: \_\_\_\_\_.
8. I have completed: \_\_\_\_\_ years of primary education  
 \_\_\_\_\_ years of secondary education  
 \_\_\_\_\_ years of college  
 \_\_\_\_\_ years of university
9. Have you studied any form of dance?  
 (List all forms, the number of years studied, and the age at which you studied.)
 

	Form	Years Studied	Age at Time of Study
a.	_____	_____	_____
b.	_____	_____	_____
c.	_____	_____	_____
d.	_____	_____	_____
e.	_____	_____	_____
10. Have you ever attended any performance where dance was the principle source of entertainment? \_\_\_\_\_yes \_\_\_\_\_no  
 How many times? \_\_\_\_\_  
 What form/kind of dance was presented? \_\_\_\_\_

Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

First Love
------------

As you proceed, always be thinking about the dance identified in the box.

1. obvious      :      :      :      :      :      :      : subtle  
1      2      3      4      5      6      7
2. beautiful      :      :      :      :      :      :      : ugly  
1      2      3      4      5      6      7
3. weak      :      :      :      :      :      :      : strong  
1      2      3      4      5      6      7
4. emotional      :      :      :      :      :      :      : rational  
1      2      3      4      5      6      7
5. slow      :      :      :      :      :      :      : fast  
1      2      3      4      5      6      7
6. feminine      :      :      :      :      :      :      : masculine  
1      2      3      4      5      6      7
7. vibrant      :      :      :      :      :      :      : still  
1      2      3      4      5      6      7
8. controlled      :      :      :      :      :      :      : accidental  
1      2      3      4      5      6      7
9. soft      :      :      :      :      :      :      : hard  
1      2      3      4      5      6      7
10. gentle      :      :      :      :      :      :      : violent  
1      2      3      4      5      6      7
11. active      :      :      :      :      :      :      : passive  
1      2      3      4      5      6      7
12. rough      :      :      :      :      :      :      : smooth  
1      2      3      4      5      6      7
13. serious      :      :      :      :      :      :      : humorous  
1      2      3      4      5      6      7
14. bad      :      :      :      :      :      :      : good  
1      2      3      4      5      6      7
15. excitable      :      :      :      :      :      :      : calm  
1      2      3      4      5      6      7

Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

Fixation
----------

As you proceed, always be thinking about the dance identified in the box.

1. obvious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : subtle
2. beautiful     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : ugly
3. weak     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : strong
4. emotional     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : rational
5. slow     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : fast
6. feminine     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : masculine
7. vibrant     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : still
8. controlled     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : accidental
9. soft     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : hard
10. gentle     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : violent
11. active     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : passive
12. rough     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : smooth
13. serious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : humorous
14. bad     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : good
15. excitable     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : calm



Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

Disc
------

As you proceed, always be thinking about the dance identified in the box.

1. obvious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : subtle
2. beautiful     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : ugly
3. weak     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : strong
4. emotional     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : rational
5. slow     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : fast
6. feminine     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : masculine
7. vibrant     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : still
8. controlled     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : accidental
9. soft     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : hard
10. gentle     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : violent
11. active     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : passive
12. rough     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : smooth
13. serious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : humorous
14. bad     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : good
15. excitable     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : calm

Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

Single Male Dancer
--------------------

As you proceed, always be thinking about the dance identified in the box.

1. obvious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : subtle
2. beautiful     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : ugly
3. weak     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : strong
4. emotional     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : rational
5. slow     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : fast
6. feminine     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : masculine
7. vibrant     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : still
8. controlled     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : accidental
9. soft     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : hard
10. gentle     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : violent
11. active     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : passive
12. rough     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : smooth
13. serious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : humorous
14. bad     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : good
15. excitable     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : calm

Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

Male and Female Dancers
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As you proceed, always be thinking about the dance identified in the box.

1. obvious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : subtle
2. beautiful     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : ugly
3. weak     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : strong
4. emotional     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : rational
5. slow     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : fast
6. feminine     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : masculine
7. vibrant     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : still
8. controlled     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : accidental
9. soft     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : hard
10. gentle     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : violent
11. active     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : passive
12. rough     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : smooth
13. serious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : humorous
14. bad     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : good
15. excitable     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : calm

Using the Scales Below, Express on the Answer Sheet  
What the Dance Identified in the Box Means to You

Group Dance
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As you proceed, always be thinking about the dance identified in the box.

1. obvious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : subtle
2. beautiful     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : ugly
3. weak     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : strong
4. emotional     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : rational
5. slow     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : fast
6. feminine     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : masculine
7. vibrant     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : still
8. controlled     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : accidental
9. soft     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : hard
10. gentle     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : violent
11. active     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : passive
12. rough     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : smooth
13. serious     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : humorous
14. bad     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : good
15. excitable     <sub>1</sub> :     <sub>2</sub> :     <sub>3</sub> :     <sub>4</sub> :     <sub>5</sub> :     <sub>6</sub> :     <sub>7</sub> : calm

APPENDIX B

RAW DATA

## DEMOGRAPHIC DATA LEGEND

Cultural Group

- 1 - African
- 2 - Asian
- 3 - American

Sex

- 1 - female
- 2 - male

Age

- 1 - 12 years--19 years
- 2 - 20 years--29 years
- 3 - 30 years--39 years
- 4 - 40 years--49 years
- 5 - 50 years--59 years
- 6 - 60 years--69 years

Dance Experience

- 1 - inexperienced
- 2 - some experience
- 3 - experienced

Educational Level

- 1 - completed primary school
- 2 - completed high school or  
earned leaving certificate
- 3 - attended college or  
technical school
- 4 - completed college
- 5 - completed university

Title-No Title

- 1 - title
- 2 - no title

## DEMOGRAPHIC DATA

Subject	Cultural Group	Sex	Age	Dance Experience	Title	Educational Level
1	3	2	6	2	5	2
2	3	2	3	2	4	2
3	3	1	4	2	5	2
4	3	1	3	2	5	2
5	3	1	3	2	3	2
6	3	2	4	2	5	2
7	3	2	2	3	5	2
8	3	2	3	2	4	2
9	3	1	1	1	1	2
10	3	2	3	1	4	2
11	3	2	3	2	5	2
12	3	2	4	2	5	2
13	3	2	1	1	1	2
14	3	2	1	1	1	2
15	3	1	1	2	1	1
16	3	1	1	2	1	1
17	3	1	1	1	1	1
18	3	1	1	2	1	1
19	3	1	1	1	1	1
20	3	2	1	2	1	1
21	3	1	4	2	5	1
22	3	2	3	2	5	1
23	3	2	3	2	5	1
24	3	2	3	1	5	1
25	3	1	3	1	5	1
26	3	2	2	3	4	1
27	3	1	3	1	5	1
28	3	1	2	1	4	1
29	3	2	4	2	5	1
30	3	1	5	2	5	1
31	3	2	5	2	5	1
32	3	2	3	3	5	1
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34	3	1	1	1	1	1
35	3	2	1	1	1	1
36	3	2	1	1	1	1
37	3	1	1	1	1	1
38	3	1	1	1	1	1
39	3	1	1	1	1	1
40	3	2	1	1	1	1
41	3	2	1	1	1	1
42	1	2	2	1	4	2

continued

Subject	Cultural Group	Sex	Age	Dance Experience	Title	Educational Level
43	1	2	2	1	2	2
44	1	2	2	1	3	2
45	1	2	1	1	1	2
46	1	1	1	1	1	2
47	1	2	1	2	1	2
48	1	1	1	1	1	1
49	1	2	3	2	5	2
50	1	2	1	1	1	2
51	1	1	1	1	1	2
52	1	1	1	1	1	2
53	1	1	1	1	1	2
54	1	2	1	1	1	2
55	1	2	1	2	1	2
56	1	1	1	1	1	2
57	1	1	1	1	1	2
58	1	1	1	1	1	2
59	1	2	1	1	1	2
60	1	2	1	1	1	2
61	1	1	1	1	1	2
62	1	1	1	1	1	2
63	1	2	1	1	1	1
64	1	1	1	1	1	1
65	1	1	1	1	1	1
66	1	2	1	1	1	1
67	1	2	1	1	1	1
68	1	2	1	1	1	1
69	1	2	1	1	1	1
70	1	2	1	1	1	1
71	1	2	1	2	1	1
72	1	1	1	1	1	1
73	1	2	1	1	1	1
74	1	2	1	1	1	1
75	1	2	1	1	1	1
76	1	2	1	1	1	1
77	1	2	1	1	1	1
78	1	1	1	1	1	1
79	1	1	1	1	1	1
80	1	1	1	1	1	1
81	2	1	1	1	1	1
82	1	1	1	1	1	1
83	1	1	1	1	1	1
84	1	1	1	1	1	1
85	1	1	1	1	1	1
86	2	1	2	3	1	1



continued

Subject	Cultural Group	Sex	Age	Dance Experience	Title	Educational Level
87	2	1	2	2	1	1
88	2	1	1	1	1	1
89	2	1	1	1	1	2
90	2	1	1	1	1	2
91	2	1	1	1	1	2
92	2	1	1	1	1	2
93	2	2	3	2	5	2
94	2	3	3	1	5	2
95	2	2	4	2	5	1
96	2	1	1	1	1	1
97	2	1	1	1	1	1
98	2	2	1	1	1	1
99	2	2	1	1	1	1
100	2	2	1	1	1	2
101	2	2	1	1	1	1
102	2	1	1	1	1	1
103	2	2	1	2	1	1
104	2	1	1	1	1	1
105	2	1	1	1	1	1
106	2	2	1	1	1	1
107	2	1	1	1	1	1
108	2	1	1	1	1	1
109	2	2	1	2	1	1
110	2	1	1	1	1	1
111	2	2	1	2	1	2
112	2	1	1	1	1	2
113	2	2	1	2	1	2
114	2	1	1	1	1	2
115	2	2	1	1	1	2
116	2	2	1	1	1	2
117	2	1	1	1	1	2
118	2	2	1	1	1	2
119	2	1	1	1	1	2
120	2	1	1	1	1	2
121	2	2	1	2	1	2
122	2	1	1	1	1	2
123	2	2	1	1	1	2
124	2	2	1	1	1	2

## LEGEND FOR SCALES:

## INDIVIDUAL'S SEMANTIC DIFFERENTIAL SCORES

O-S obvious--subtle  
B-U beautiful--ugly  
W-S weak--strong  
E-R emotional--rational  
S-F slow--fast  
F-M feminine--masculine  
V-S vibrant--still  
C-A controlled--accidental  
S-H soft--hard  
G-V gentle--violent  
A-P active--passive  
R-S rough--smooth  
S-H serious--humorous  
B-G bad--good  
E-C excitable--calm

## INDIVIDUAL'S SEMANTIC DIFFERENTIAL SCORES

Film I

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
1	2	7	7	4	4	5	6	1	5	4	6	5	4	7	4
2	5	5	7	5	4	4	7	6	6	5	6	5	4	7	5
3	5	5	7	5	4	4	7	6	6	5	6	5	4	7	5
4	5	4	7	3	3	7	6	7	7	5	7	2	4	5	6
5	5	5	7	5	5	6	6	7	7	6	6	5	5	6	6
6	3	4	5	5	4	6	6	5	4	4	6	5	6	5	5
7	4	1	1	4	4	7	4	3	7	4	4	1	4	1	4
8	7	7	7	2	6	7	7	7	6	7	7	4	6	7	7
9	6	5	4	6	6	1	1	7	4	3	6	3	4	4	4
10	6	6	7	2	3	4	6	7	7	7	6	2	7	2	6
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15	6	7	6	1	7	4	7	1	7	7	7	7	7	7	7
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42	4	6	6	4	5	6	6	6	7	4	6	5	3	6	6
43	4	4	5	6	4	3	2	5	7	4	2	6	3	6	5

## Film I continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
44	4	4	5	4	2	6	2	5	2	2	5	6	4	5	5
45	7	7	7	7	4	7	7	7	1	1	7	7	1	7	1
46	7	5	5	7	1	5	4	7	3	1	6	7	7	5	1
47	5	5	6	7	4	6	7	5	7	1	7	7	1	7	1
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63	7	6	5	4	5	4	6	5	5	2	4	4	2	7	5
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66	7	4	7	4	5	7	7	7	7	7	7	1	7	6	5
67	7	7	7	7	1	1	7	7	7	1	7	7	7	7	1
68	4	4	6	4	4	6	4	4	4	6	4	4	4	4	4
69	4	5	3	5	7	1	3	4	4	5	2	3	5	1	4
70	1	7	6	6	7	1	2	6	7	7	7	1	7	7	7
71	7	2	5	7	7	7	7	6	7	1	7	3	1	3	5
72	3	5	3	3	5	3	5	6	7	6	4	3	2	1	7
73	1	1	1	1	4	4	4	4	4	4	4	3	4	1	1
74	5	5	7	5	5	7	6	5	7	3	7	4	7	7	7
75	5	5	5	4	5	6	7	7	5	5	1	4	4	7	4
76	7	7	6	3	7	6	7	7	7	7	7	2	2	7	7
77	4	4	7	5	6	3	5	5	4	6	5	3	4	3	5
78	4	2	4	3	4	4	5	2	5	7	3	6	3	5	2
79	5	7	7	6	4	2	6	7	5	3	4	4	4	6	4
80	1	1	7	1	1	1	1	1	1	1	1	7	7	1	1
81	3	5	5	3	1	4	1	4	6	5	4	3	6	7	4
82	4	3	4	3	5	4	5	3	5	5	4	3	3	4	5
83	4	3	1	1	1	2	1	4	1	1	5	7	1	1	1
84	4	4	5	4	3	2	4	6	1	3	7	6	5	2	4
85	5	4	4	4	4	4	4	5	4	4	4	4	4	4	4
86	7	7	7	6	7	4	7	7	4	4	7	7	6	7	1
87	5	6	5	6	4	6	4	4	5	3	5	5	5	6	6
88	2	1	6	4	2	7	5	6	7	6	3	4	7	1	2

## Film I continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
89	6	5	4	2	4	5	6	6	1	1	7	5	7	1	3
90	6	1	3	5	7	4	6	6	7	1	7	5	1	1	4
91	1	1	1	4	3	1	1	1	4	7	1	1	7	1	1
92	6	1	6	5	1	2	7	1	6	7	3	1	1	2	6
93	6	4	6	7	5	7	6	6	6	4	1	6	4	6	3
94	1	3	4	1	3	7	2	4	5	4	2	6	5	4	4
95	4	5	6	1	6	6	7	7	7	2	7	7	6	6	6
96	4	2	4	4	4	4	4	3	5	6	3	3	5	3	3
97	5	3	6	6	5	6	7	6	7	7	6	3	5	4	6
98	6	6	5	4	7	4	7	2	7	5	7	1	3	5	6
99	4	4	7	4	6	7	3	4	7	4	7	5	6	4	4
100	5	3	7	4	7	7	7	6	7	6	7	4	4	4	4
101	4	1	6	1	1	4	3	1	4	6	7	1	4	6	4
102	7	1	4	1	1	7	7	7	7	1	7	7	7	1	1
103	3	5	3	3	5	3	6	7	6	6	7	5	7	5	6
104	7	7	7	7	4	7	4	7	7	4	6	6	6	7	7
105	7	7	7	7	7	1	7	1	7	7	7	1	1	7	7
106	1	3	7	1	3	7	5	4	7	7	6	1	5	7	6
107	4	6	6	2	2	2	5	7	7	7	7	7	1	6	7
108	5	6	5	6	5	2	6	6	3	5	5	5	5	5	5
109	2	2	7	3	2	7	7	2	3	6	5	3	5	7	6
110	4	6	6	2	2	2	2	7	1	2	4	6	6	4	4
111	4	4	5	3	4	4	6	6	4	4	5	4	3	4	3
112	3	4	4	3	4	3	7	5	6	3	7	7	5	6	4
113	2	4	6	1	2	4	2	7	5	5	4	7	7	6	1
114	4	4	5	4	2	4	4	7	1	4	1	6	7	7	4
115	4	2	3	7	1	1	6	7	2	2	6	7	6	1	7
116	5	2	7	1	7	7	6	4	6	7	7	1	7	5	7
117	3	6	6	6	2	1	6	7	6	2	2	2	2	5	2
118	5	1	1	1	1	7	6	3	6	2	1	1	4	1	1
119	4	5	5	6	7	2	6	5	2	6	7	4	2	6	6
120	1	4	6	2	4	7	7	7	2	4	7	2	7	4	1
121	2	2	3	7	1	1	2	6	1	2	2	4	7	4	2
122	4	5	5	5	2	4	6	1	6	1	1	6	1	1	2
123	5	2	1	2	1	7	1	7	7	5	2	4	6	4	4
124	4	2	3	7	1	1	6	7	1	1	1	6	5	5	2

## INDIVIDUAL'S SEMANTIC DIFFERENTIAL SCORES

## Film II

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
1	5	4	6	3	4	7	6	5	5	3	5	6	6	6	5
2	4	5	7	6	6	4	6	7	6	4	7	3	6	7	5
3	5	4	6	5	5	3	6	7	5	6	7	4	4	5	6
4	7	6	7	1	7	4	7	7	6	5	7	2	3	6	6
5	5	4	6	6	6	6	7	7	6	6	6	5	6	5	6
6	4	4	5	6	7	7	6	3	4	5	7	5	4	5	7
7	7	4	4	4	6	4	5	7	4	4	7	4	4	4	4
8	7	6	7	4	7	7	7	7	7	7	7	4	6	7	7
9	7	4	4	5	6	7	6	7	6	4	6	4	4	5	7
10	4	6	7	5	6	4	6	7	7	6	6	3	6	4	6
11	6	5	6	3	6	7	6	7	4	4	6	2	7	5	6
12	7	3	7	6	7	7	7	7	6	7	7	6	6	5	6
13	7	7	7	6	7	7	7	5	7	7	5	1	4	4	4
14	2	5	7	4	5	7	7	5	7	6	7	4	1	7	7
15	7	6	7	4	5	7	6	1	4	6	7	2	7	5	7
16	7	7	6	6	7	7	7	1	7	1	7	1	7	6	7
17	7	5	7	4	7	7	7	7	7	7	7	1	1	7	7
18	7	3	7	4	7	7	7	2	7	7	5	1	1	4	7
19	7	4	6	4	7	7	7	2	5	4	7	2	4	7	6
20	7	4	5	4	5	7	7	6	6	6	7	5	1	6	7
21	2	6	4	7	5	5	3	5	5	3	5	3	5	6	5
22	7	4	5	5	6	5	5	6	5	5	1	2	6	4	7
23	5	6	5	7	6	3	7	5	2	1	7	2	1	7	3
24	3	4	5	5	5	4	5	7	6	5	5	2	3	5	6
25	7	3	5	2	7	7	7	7	7	7	7	2	7	4	7
26	6	5	6	3	7	6	7	7	6	4	7	4	4	7	5
27	6	4	5	2	4	5	5	7	5	3	5	4	6	5	4
28	5	5	7	1	3	4	5	7	3	2	6	7	4	7	3
29	6	5	5	6	5	5	7	5	5	5	6	6	5	6	6
30	5	5	5	4	4	6	6	6	4	5	6	5	4	5	4
31	4	5	6	7	7	4	7	7	6	5	7	7	6	7	7
32	1	7	6	1	6	5	6	7	5	2	6	7	1	7	7
33	1	6	4	4	7	7	7	7	6	1	6	6	4	5	7
34	7	6	7	6	7	7	7	4	4	4	7	6	1	7	7
35	6	2	7	1	7	6	7	1	6	5	7	1	2	2	7
36	6	3	6	1	5	5	6	6	6	7	7	1	4	5	5
37	4	6	7	3	7	6	6	6	7	5	7	6	5	6	5
38	6	4	7	4	6	5	7	6	7	7	7	2	4	7	6
39	6	7	6	2	7	6	7	5	7	7	7	1	1	7	7
40	1	1	4	1	7	7	7	7	5	4	7	7	1	5	7
41	1	1	7	6	7	7	7	7	7	7	7	7	4	1	7
42	5	5	6	4	4	5	6	6	4	4	5	5	4	5	5
43	4	7	7	1	7	4	5	6	6	6	4	7	5	7	4

## Film II continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
44	7	6	6	7	7	7	1	7	6	1	7	1	4	7	5
45	7	7	7	7	7	1	7	7	7	7	1	1	1	7	1
46	7	5	7	7	7	7	7	5	7	1	7	7	7	7	7
47	7	7	4	7	6	7	7	7	3	4	5	7	7	6	4
48	7	6	6	6	6	1	4	6	7	7	5	4	6	3	1
49	7	6	7	6	7	5	6	6	5	4	6	5	6	6	5
50	7	7	7	5	7	4	4	5	7	5	5	4	4	7	1
51	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
52	3	5	6	5	5	3	6	5	2	4	3	3	5	6	1
53	7	7	7	7	7	7	7	4	7	1	1	7	7	7	1
54	1	1	7	1	7	7	6	7	7	1	7	1	7	4	2
55	7	7	6	4	6	7	4	4	1	1	6	5	4	7	5
56	5	5	7	1	6	6	5	2	6	4	2	2	6	6	6
57	7	7	7	4	4	7	7	1	7	4	7	4	7	7	7
58	7	6	7	7	7	7	7	4	7	6	5	4	5	7	5
59	6	6	6	2	6	6	7	5	4	3	5	5	1	5	6
60	7	7	7	4	7	7	5	2	6	5	4	7	2	7	4
61	4	7	7	4	7	7	1	7	7	1	7	4	7	1	1
62	6	4	5	5	4	7	7	6	6	4	7	4	4	5	4
63	6	6	2	7	7	7	7	7	2	4	5	2	1	6	6
64	7	7	7	4	7	4	4	4	7	1	7	1	7	7	4
65	7	4	7	7	7	2	7	7	4	7	4	7	7	4	4
66	7	5	5	7	4	7	7	3	7	4	7	1	3	7	4
67	6	5	7	3	7	5	7	7	7	1	7	7	7	7	1
68	4	7	4	2	7	4	7	1	4	5	7	2	1	7	5
69	5	7	4	5	7	7	7	4	5	4	7	7	7	7	6
70	6	6	7	7	7	7	4	4	7	7	7	1	1	6	7
71	7	3	7	7	7	7	7	7	3	1	7	5	1	5	5
72	7	7	7	6	7	6	6	7	7	6	7	7	4	7	4
73	7	1	7	7	1	4	7	1	1	4	4	7	1	7	1
74	4	7	7	4	7	7	4	7	4	4	7	4	4	7	4
75	6	5	5	3	6	7	7	7	5	4	7	4	1	4	7
76	7	3	6	2	7	7	7	3	6	7	6	2	6	4	6
77	7	6	7	3	7	7	7	7	7	6	6	2	1	5	7
78	1	6	7	3	4	7	3	6	4	4	7	5	2	7	7
79	4	7	7	7	7	6	7	5	7	7	7	1	1	7	7
80	7	6	1	6	7	1	7	1	1	7	7	7	1	7	1
81	7	5	5	4	3	3	2	4	7	4	5	4	5	4	4
82	7	7	7	5	7	4	6	2	5	5	5	3	3	6	7
83	5	7	7	1	7	1	7	1	7	5	1	1	1	7	7
84	7	7	7	6	7	6	5	3	1	7	7	7	2	7	7
85	4	5	7	6	6	6	6	3	6	7	6	1	6	6	6
86	6	6	6	7	7	7	7	4	7	5	7	4	7	7	6
87	4	5	6	7	6	6	5	5	5	4	5	4	5	5	5
88	7	6	5	7	7	4	5	3	3	4	6	7	5	6	6
89	2	6	3	4	5	6	3	6	4	5	6	3	5	1	3

## Film II continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
90	7	2	7	5	7	7	7	5	7	6	7	6	5	4	6
91	1	1	1	7	7	1	7	7	7	6	7	1	3	4	7
92	7	7	7	4	7	5	7	7	3	5	7	7	1	7	7
93	6	4	6	3	5	7	5	7	3	3	3	2	7	4	2
94	7	4	5	1	5	7	5	6	6	5	6	1	3	4	5
95	7	6	6	1	6	6	7	7	1	3	7	6	7	7	7
96	4	5	7	1	7	4	5	4	6	6	7	2	1	5	6
97	7	1	6	5	6	6	7	5	6	7	6	2	2	4	7
98	7	7	7	4	7	5	7	2	7	4	7	3	1	7	7
99	7	5	5	4	7	7	7	1	7	4	7	4	1	7	7
100	1	3	7	4	7	7	7	7	7	6	7	1	1	6	5
101	1	3	4	1	7	4	7	1	5	7	7	1	1	7	7
102	4	5	6	1	5	6	6	5	5	5	6	5	4	5	4
103	7	7	7	6	7	6	6	7	7	6	7	5	4	7	6
104	4	6	6	7	7	7	7	7	7	4	7	3	5	7	6
105	1	7	7	1	4	1	7	1	1	7	7	7	1	7	7
106	4	3	6	4	7	7	2	1	4	6	7	3	1	6	7
107	5	7	7	2	6	6	7	6	5	6	6	7	2	6	5
108	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
109	1	6	7	3	7	7	7	5	5	5	3	6	2	7	7
110	4	7	7	1	7	7	7	7	7	7	7	7	7	5	5
111	4	3	4	3	4	6	5	4	6	6	6	2	4	5	4
112	7	5	7	7	7	7	7	4	6	7	7	6	4	5	6
113	4	4	7	1	7	6	7	7	6	6	7	7	1	7	7
114	7	7	7	7	7	6	7	7	7	4	7	1	1	7	7
115	4	2	7	2	7	1	7	1	7	2	7	6	7	1	7
116	4	5	7	7	5	7	5	6	3	3	7	7	3	7	5
117	6	6	7	7	6	7	7	7	6	6	6	5	6	7	6
118	1	2	4	2	7	6	6	2	7	5	2	1	1	4	2
119	4	2	6	2	7	7	6	6	6	7	5	2	5	6	7
120	1	4	7	2	7	6	7	7	4	6	7	4	7	4	1
121	7	1	7	2	7	5	3	2	5	6	7	1	4	4	6
122	3	3	6	2	7	7	7	7	1	7	1	7	1	1	1
123	7	5	7	4	7	7	7	7	4	7	7	4	4	7	6
124	7	5	6	3	7	6	6	5	6	6	6	5	2	6	6



## INDIVIDUAL'S SEMANTIC DIFFERENTIAL SCORES

## Film III

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
1	7	5	5	5	3	4	4	6	4	3	5	5	5	6	4
2	4	4	4	5	3	4	5	6	3	3	3	6	6	4	3
3	2	6	5	5	2	4	2	7	3	2	2	7	6	6	2
4	1	7	5	5	3	4	3	5	2	2	4	7	6	7	2
5	3	5	5	5	3	3	4	5	3	2	5	5	5	5	3
6	4	3	3	3	2	4	3	3	2	4	3	5	4	5	4
7	7	5	4	4	2	4	2	7	2	2	6	5	4	5	1
8	1	7	7	7	1	3	3	7	2	1	2	7	7	7	1
9	6	2	2	3	1	1	3	4	2	3	1	7	3	1	1
10	6	7	6	5	2	2	2	7	2	2	6	7	6	6	2
11	2	7	5	6	2	2	3	6	1	1	3	7	6	7	4
12	4	6	6	5	3	4	4	7	3	3	4	7	6	6	3
13	7	7	1	7	1	1	3	7	1	1	4	7	7	1	1
14	7	7	5	7	1	3	5	1	1	1	1	7	7	7	1
15	1	2	7	6	6	5	5	5	7	5	5	1	4	3	2
16	1	1	7	1	1	1	7	1	1	7	1	7	1	1	1
17	1	7	7	7	1	1	1	7	1	1	7	7	7	7	1
18	2	3	3	4	1	4	1	4	1	1	4	7	7	4	1
19	6	6	5	7	2	1	4	5	2	2	1	7	4	7	1
20	6	6	2	1	2	4	1	7	2	1	2	7	7	6	1
21	3	5	6	6	3	4	5	5	5	3	3	5	6	6	7
22	2	5	5	3	1	3	2	6	2	2	3	7	6	5	2
23	3	7	7	7	7	3	7	6	2	1	7	7	7	7	7
24	5	5	4	5	3	4	3	5	3	3	2	6	6	5	2
25	3	5	5	6	3	4	5	3	3	3	5	6	7	4	6
26	7	6	4	7	2	4	2	6	2	1	3	7	6	6	2
27	3	6	4	7	3	4	5	5	2	1	3	6	6	7	6
28	5	7	7	6	3	4	5	6	2	1	7	7	7	6	6
29	2	6	4	6	2	2	6	3	2	2	4	6	6	6	2
30	2	4	2	4	4	5	4	7	5	5	5	6	5	5	3
31	4	4	4	4	1	4	1	7	4	1	1	7	4	4	1
32	7	7	6	7	3	3	5	7	2	1	7	7	6	7	1
33	4	4	6	4	1	4	5	7	1	2	5	7	4	4	1
34	7	7	7	6	2	4	5	7	4	4	4	6	6	7	4
35	6	7	4	7	1	1	3	7	1	1	1	7	7	7	1
36	6	5	4	2	5	4	5	5	5	5	6	4	7	6	4
37	6	6	7	3	2	5	6	7	2	2	5	6	5	4	1
38	5	6	6	6	5	5	7	7	7	5	7	7	7	7	6
39	2	7	5	7	1	5	2	7	2	2	2	6	7	6	1
40	7	7	7	7	1	7	5	7	1	1	3	7	7	6	3
41	7	7	1	1	1	1	3	7	1	1	1	7	6	5	1
42	5	5	5	4	2	4	1	7	2	1	2	6	3	6	2
43	7	7	5	2	2	6	4	6	7	6	4	7	5	6	5

## Film III continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
44	4	6	5	5	4	4	4	6	2	2	7	7	5	7	7
45	1	7	7	1	1	7	1	7	7	1	7	1	1	7	1
46	7	1	4	7	1	1	1	4	5	1	1	7	1	4	1
47	7	1	1	1	1	1	1	1	1	1	1	7	1	4	4
48	7	5	1	4	1	5	4	7	7	7	4	7	1	7	6
49	7	6	6	4	2	4	4	6	4	2	4	7	5	6	6
50	7	7	7	4	7	7	4	5	4	5	2	4	4	7	4
51	1	7	7	1	1	1	1	7	1	1	1	7	7	7	1
52	5	2	2	6	2	3	2	3	2	3	2	5	2	2	4
53	7	4	7	4	1	2	7	7	7	1	7	7	7	2	2
54	4	7	7	1	1	7	7	4	1	1	7	7	1	7	7
55	4	4	7	4	3	4	4	5	3	1	5	5	4	3	4
56	5	5	2	7	1	1	3	7	1	1	2	7	7	5	1
57	7	4	6	4	2	4	6	7	1	1	4	4	4	7	7
58	7	7	7	6	4	4	6	7	1	1	4	7	4	7	7
59	6	4	6	6	2	2	4	7	1	1	1	7	7	4	4
60	4	6	2	5	1	3	3	5	1	2	4	7	7	5	4
61	4	7	1	1	1	1	1	7	1	1	1	7	7	7	7
62	4	4	6	4	2	4	6	6	2	4	5	7	4	4	4
63	7	1	5	1	1	4	3	3	2	4	5	7	7	1	7
64	4	7	1	4	1	4	4	7	1	1	4	7	4	7	4
65	7	5	7	4	1	1	4	7	4	1	7	4	2	7	7
66	3	4	6	7	2	4	5	6	4	3	3	5	6	6	2
67	1	7	7	4	1	5	7	7	7	1	1	1	7	7	1
68	4	1	2	7	1	1	2	6	2	1	2	6	6	4	3
69	4	1	7	7	1	7	1	7	1	1	1	7	5	5	1
70	7	7	7	7	1	7	6	7	1	7	1	7	7	7	1
71	1	3	5	1	1	3	1	7	3	3	1	7	4	3	1
72	3	5	3	3	5	3	5	6	7	6	4	3	2	1	7
73	1	7	1	7	1	7	1	7	7	1	7	7	7	7	7
74	7	7	1	4	1	1	1	7	1	1	4	7	6	6	3
75	4	1	1	4	1	4	4	7	1	1	4	7	7	3	1
76	7	7	6	3	7	6	7	7	7	7	7	2	2	7	7
77	7	5	7	4	2	4	7	7	1	2	6	6	2	5	3
78	4	1	2	3	2	1	4	3	7	1	6	5	4	1	1
79	6	4	1	4	1	5	7	7	1	1	3	7	4	4	1
80	6	7	4	4	1	4	2	7	1	1	7	1	1	7	1
81	4	3	7	1	1	5	4	6	5	5	3	5	4	4	2
82	6	5	5	6	1	1	2	6	2	2	3	6	6	5	1
83	4	2	1	3	1	4	5	1	1	1	7	7	3	4	1
84	1	2	7	1	1	1	3	1	6	2	2	7	7	2	2
85	7	4	4	4	4	4	4	4	4	4	4	4	4	4	4
86	7	7	7	7	5	4	7	7	4	4	7	7	4	7	7
87	5	5	5	4	3	4	3	5	5	3	3	6	3	5	3
88	6	7	1	7	1	1	3	7	1	1	4	7	5	6	1
89	6	7	1	4	3	1	6	6	3	1	1	6	6	1	2

## Film III continued

Subject	O-S	B-U	W-S	E-R	S-F	F-M	V-S	C-A	S-H	G-V	A-P	R-S	S-H	B-G	E-C
90	1	3	4	5	4	1	4	3	2	5	2	4	1	1	7
91	1	1	1	1	1	7	1	7	1	1	1	7	7	1	1
92	5	4	5	5	1	4	2	7	2	1	5	7	7	5	1
93	6	4	6	4	1	7	5	1	6	6	5	3	7	4	2
94	2	4	1	5	1	1	2	7	2	2	2	6	6	4	1
95	2	7	6	7	5	2	5	7	2	2	1	7	6	7	2
96	3	2	4	6	2	2	4	4	1	3	2	4	4	3	1
97	2	5	6	4	1	4	3	4	2	2	1	5	6	4	4
98	5	6	7	5	2	4	2	7	1	1	1	7	6	5	2
99	7	4	4	4	1	1	7	7	1	1	7	7	7	7	1
100	7	6	6	4	2	7	5	7	4	3	5	7	7	7	2
101	7	5	7	1	1	4	1	7	5	1	7	7	7	7	1
102	5	4	6	4	2	5	5	5	6	4	5	4	6	4	3
103	3	7	2	6	1	2	5	3	1	1	6	7	7	7	1
104	7	4	7	5	1	1	3	4	1	1	4	5	6	4	1
105	1	7	1	7	1	7	7	7	1	1	1	7	7	7	1
106	1	7	3	5	2	2	2	5	1	1	5	7	5	6	3
107	1	5	5	1	2	5	5	5	2	3	2	5	6	5	2
108	1	7	7	1	2	5	5	5	2	2	2	6	6	6	2
109	7	7	6	7	1	1	1	6	2	2	3	6	5	7	1
110	1	6	7	1	1	7	2	6	1	1	2	7	6	5	4
111	4	5	5	5	3	4	4	7	1	2	6	7	4	7	1
112	6	2	2	1	2	1	1	6	1	2	6	5	4	5	1
113	7	7	7	7	1	4	2	7	3	1	4	3	3	3	1
114	1	1	1	7	1	4	7	7	1	7	7	7	7	2	3
115	4	7	7	6	1	1	1	7	1	1	7	7	7	7	1
116	7	7	3	7	1	4	1	7	1	1	1	7	7	4	1
117	6	5	3	5	2	2	2	5	3	2	2	7	5	5	3
118	2	5	5	2	1	3	3	5	4	5	2	6	1	4	5
119	4	2	2	2	2	4	2	1	2	1	1	6	7	1	1
120	4	4	7	4	2	4	4	7	4	1	4	4	7	4	1
121	5	7	5	6	1	4	2	5	5	4	1	3	5	4	5
122	4	1	1	1	1	1	7	7	1	1	5	7	4	1	1
123	1	7	1	7	1	1	6	6	1	1	1	7	7	7	1
124	1	6	4	6	1	5	4	5	1	5	5	7	2	5	6

APPENDIX C  
DATA SUMMARY

Pearson Correlation Coefficients: Film A

	CULTGRP	SEX	AGE	DANCEXP	EDUCAT
FILMA1	0.0144 ( 124) P=0.873	0.0911 ( 124) P=0.314	-0.0231 ( 124) P=0.799	0.0077 ( 124) P=0.932	0.0305 ( 124) P=0.736
FILMA2	0.0301 ( 124) P=0.740	-0.0172 ( 124) P=0.850	0.1176 ( 124) P=0.193	0.1102 ( 124) P=0.223	0.0525 ( 124) P=0.490
FILMA3	-0.2797 ( 124) P=0.002	0.0652 ( 124) P=0.472	0.1808 ( 124) P=0.044	0.0825 ( 124) P=0.363	0.1707 ( 124) P=0.058
FILMA4	0.1067 ( 124) P=0.238	0.0404 ( 124) P=0.636	-0.0950 ( 124) P=0.294	0.0179 ( 124) P=0.844	-0.1222 ( 124) P=0.176
FILMA5	-0.0991 ( 124) P=0.274	0.0601 ( 124) P=0.466	0.0362 ( 124) P=0.690	0.0604 ( 124) P=0.505	0.0259 ( 124) P=0.775
FILMA6	-0.2340 ( 124) P=0.009	0.3603 ( 124) P=0.000	0.1568 ( 124) P=0.082	0.1265 ( 124) P=0.161	0.2291 ( 124) P=0.010
FILMA7	-0.2780 ( 124) P=0.002	0.0465 ( 124) P=0.608	0.0882 ( 124) P=0.330	0.1073 ( 124) P=0.236	0.0552 ( 124) P=0.347
FILMA8	-0.0650 ( 124) P=0.474	0.0740 ( 124) P=0.414	0.1371 ( 124) P=0.129	0.1515 ( 124) P=0.093	0.1896 ( 124) P=0.035
FILMA9	-0.3962 ( 124) P=0.000	0.0984 ( 124) P=0.277	0.1933 ( 124) P=0.022	0.1467 ( 124) P=0.104	0.2383 ( 124) P=0.003
FILMA10	-0.4092 ( 124) P=0.000	0.0517 ( 124) P=0.559	0.0413 ( 124) P=0.648	0.0852 ( 124) P=0.341	0.0731 ( 124) P=0.420
FILMA11	-0.2881 ( 124) P=0.001	0.0882 ( 124) P=0.330	0.1113 ( 124) P=0.219	0.1173 ( 124) P=0.194	0.1022 ( 124) P=0.258
FILMA12	0.1145 ( 124) P=0.206	-0.1144 ( 124) P=0.206	0.0411 ( 124) P=0.650	0.0581 ( 124) P=0.522	-0.0177 ( 124) P=0.946
FILMA13	-0.1119 ( 124) P=0.216	0.0327 ( 124) P=0.719	0.1019 ( 124) P=0.260	0.1297 ( 124) P=0.151	0.1251 ( 124) P=0.166
FILMA14	-0.1201 ( 124) P=0.184	0.1202 ( 124) P=0.134	0.1001 ( 124) P=0.269	0.1718 ( 124) P=0.050	0.0722 ( 124) P=0.425
FILMA15	-0.2769 ( 124) P=0.002	0.1165 ( 124) P=0.190	0.1354 ( 124) P=0.134	0.0371 ( 124) P=0.682	0.1726 ( 124) P=0.055
SUMA	-0.3282 ( 124) P=0.000	0.1658 ( 124) P=0.066	0.1889 ( 124) P=0.036	0.2054 ( 124) P=0.022	0.2062 ( 124) P=0.022

Note.- Significance = p\_0.05

Pearson Correlation Coefficients: Film B

	CULTGRP	SEX	AGE	DANCEXP	EDUCAT
FILMB1	0.1393 ( 124) P=0.123	-0.0031 ( 124) P=0.929	-0.0187 ( 124) P=0.862	0.0014 ( 124) P=0.498	0.0237 ( 124) P=0.794
FILMB2	0.2550 ( 124) P=0.004	-0.1121 ( 124) P=0.215	-0.0536 ( 124) P=0.554	0.0242 ( 124) P=0.790	-0.0576 ( 124) P=0.524
FILMB3	0.0670 ( 124) P=0.460	-0.0624 ( 124) P=0.491	-0.0970 ( 124) P=0.284	-0.0489 ( 124) P=0.590	-0.1005 ( 124) P=0.226
FILMB4	0.1490 ( 124) P=0.099	-0.0623 ( 124) P=0.492	-0.0103 ( 124) P=0.910	0.0290 ( 124) P=0.750	-0.0703 ( 124) P=0.367
FILMB5	0.0637 ( 124) P=0.482	0.1048 ( 124) P=0.247	-0.2444 ( 124) P=0.006	-0.0495 ( 124) P=0.585	-0.2021 ( 124) P=0.005
FILMB6	-0.0833 ( 124) P=0.359	0.1001 ( 124) P=0.269	-0.0685 ( 124) P=0.450	0.0294 ( 124) P=0.746	-0.1102 ( 124) P=0.223
FILMB7	-0.2004 ( 124) P=0.026	-0.0468 ( 124) P=0.605	-0.0471 ( 124) P=0.603	-0.0348 ( 124) P=0.701	-0.0843 ( 124) P=0.382
FILMB8	-0.1196 ( 124) P=0.186	0.0425 ( 124) P=0.639	0.2644 ( 124) P=0.003	0.1597 ( 124) P=0.070	0.3070 ( 124) P=0.001
FILMB9	-0.0659 ( 124) P=0.467	-0.0278 ( 124) P=0.709	-0.1542 ( 124) P=0.087	-0.0773 ( 124) P=0.393	-0.1547 ( 124) P=0.067
FILMB10	-0.0966 ( 124) P=0.286	-0.1475 ( 124) P=0.102	-0.1333 ( 124) P=0.140	-0.1259 ( 124) P=0.163	-0.1704 ( 124) P=0.047
FILMB11	-0.2122 ( 124) P=0.018	0.0280 ( 124) P=0.708	0.0040 ( 124) P=0.965	0.0942 ( 124) P=0.298	0.0099 ( 124) P=0.913
FILMB12	0.0694 ( 124) P=0.443	-0.0448 ( 124) P=0.621	0.0947 ( 124) P=0.295	0.0753 ( 124) P=0.406	0.0295 ( 124) P=0.743
FILMB13	0.0318 ( 124) P=0.726	-0.1423 ( 124) P=0.115	0.2573 ( 124) P=0.004	0.1617 ( 124) P=0.073	0.2235 ( 124) P=0.012
FILMB14	0.1229 ( 124) P=0.174	0.0031 ( 124) P=0.935	-0.0143 ( 124) P=0.875	0.0887 ( 124) P=0.327	-0.0429 ( 124) P=0.636
FILMB15	-0.3059 ( 124) P=0.001	0.0431 ( 124) P=0.635	0.0601 ( 124) P=0.507	0.1062 ( 124) P=0.240	0.0307 ( 124) P=0.735
SUMS	-0.0246 ( 124) P=0.787	-0.0733 ( 124) P=0.418	0.0186 ( 124) P=0.837	0.1120 ( 124) P=0.216	-0.0370 ( 124) P=0.683

Note. - Significance = p\_ 0.05

Pearson Correlation Coefficients: Film C

	CULTGRP	SEX	AGE	DANCEXP	EDUCAT
FILMC1	0.1178 ( 124) P=0.193	0.1810 ( 124) P=0.044	-0.1219 ( 124) P=0.177	-0.0058 ( 124) P=0.952	-0.1211 ( 124) P=0.160
FILMC2	-0.1952 ( 124) P=0.030	0.2465 ( 124) P=0.006	0.1067 ( 124) P=0.238	0.0863 ( 124) P=0.341	0.1380 ( 124) P=0.126
FILMC3	-0.0692 ( 124) P=0.445	0.0979 ( 124) P=0.279	0.0638 ( 124) P=0.481	0.1066 ( 124) P=0.238	0.0757 ( 124) P=0.404
FILMC4	-0.2439 ( 124) P=0.006	0.0923 ( 124) P=0.308	0.1618 ( 124) P=0.072	0.1530 ( 124) P=0.090	0.1479 ( 124) P=0.337
FILMC5	-0.1423 ( 124) P=0.115	-0.0117 ( 124) P=0.897	0.2718 ( 124) P=0.002	0.2691 ( 124) P=0.003	0.2585 ( 124) P=0.004
FILMC6	0.0760 ( 124) P=0.402	0.0668 ( 124) P=0.451	0.0509 ( 124) P=0.575	0.0121 ( 124) P=0.894	0.0427 ( 124) P=0.633
FILMC7	-0.0125 ( 124) P=0.890	-0.1194 ( 124) P=0.167	0.0121 ( 124) P=0.894	-0.0138 ( 124) P=0.862	-0.0380 ( 124) P=0.950
FILMC8	0.0150 ( 124) P=0.859	0.1155 ( 124) P=0.222	0.0067 ( 124) P=0.941	-0.0638 ( 124) P=0.484	-0.0085 ( 124) P=0.925
FILMC9	0.1377 ( 124) P=0.127	-0.0933 ( 124) P=0.303	0.1124 ( 124) P=0.210	0.0869 ( 124) P=0.337	0.0488 ( 124) P=0.614
FILMC10	0.0026 ( 124) P=0.977	-0.0575 ( 124) P=0.526	0.0634 ( 124) P=0.484	0.0662 ( 124) P=0.465	0.0051 ( 124) P=0.955
FILMC11	0.0173 ( 124) P=0.849	-0.0234 ( 124) P=0.797	0.0266 ( 124) P=0.770	0.0853 ( 124) P=0.346	0.0404 ( 124) P=0.794
FILMC12	-0.1455 ( 124) P=0.107	0.0651 ( 124) P=0.472	0.0600 ( 124) P=0.508	-0.0334 ( 124) P=0.713	0.0744 ( 124) P=0.412
FILMC13	-0.3091 ( 124) P=0.000	0.1039 ( 124) P=0.228	0.1072 ( 124) P=0.236	-0.0513 ( 124) P=0.571	0.1525 ( 124) P=0.000
FILMC14	-0.0789 ( 124) P=0.384	0.2495 ( 124) P=0.005	0.1764 ( 124) P=0.050	0.0903 ( 124) P=0.316	0.1437 ( 124) P=0.031
FILMC15	0.2047 ( 124) P=0.023	-0.0660 ( 124) P=0.466	0.1123 ( 124) P=0.214	0.0164 ( 124) P=0.857	0.1023 ( 124) P=0.231
SUMC	-0.1060 ( 124) P=0.241	0.1018 ( 124) P=0.260	0.2080 ( 124) P=0.020	0.1401 ( 124) P=0.121	0.2107 ( 124) P=0.012

Note.- Significance = p\_ 0.05

Means by Culture and AgeStimulus Film 1: Potency Dimension

	MEAN	STD DEV	VARIANCE	N
	24.4677	5.9036	34.8526	124)
AMERICAN	28.4634	4.4615	19.9049	41)
12-19	28.3333	4.6904	22.0000	18)
20-29	28.0000	4.5826	21.0000	3)
30-39	30.9167	2.5746	6.6288	12)
40-49	27.0000	4.5277	20.5000	5)
50-59	21.0000	4.2426	18.0000	2)
60-69	25.0000	0.0	0.0	1)
ASIA	23.3750	5.6781	32.2404	40)
12-19	23.0571	5.9948	35.9378	35)
20-29	24.5000	0.7071	0.5000	2)
30-39	26.0000	1.4142	2.0000	2)
40-49	27.0000	0.0	0.0	1)
AFRICAN	21.6744	5.3351	28.4629	43)
12-19	21.7436	5.4951	30.1957	39)
20-29	22.3333	3.5119	12.3333	3)
30-39	17.0000	0.0	0.0	1)

Stimulus Film 1: Summary

	MEAN	STD DEV	VARIANCE	N
	70.2823	13.6272	185.7002	124)
AMERICAN	77.7805	10.2750	105.5756	41)
12-19	78.2778	11.6760	136.3301	18)
20-29	74.6667	19.2959	372.3333	3)
30-39	82.0000	5.0812	25.8182	12)
40-49	74.8000	5.4496	29.7000	5)
50-59	63.5000	3.5355	12.5000	2)
60-69	71.0000	0.0	0.0	1)
ASIA	66.2750	12.7902	163.5891	40)
12-19	64.9429	12.4238	154.3496	35)
20-29	61.5000	9.1924	84.5000	2)
30-39	66.0000	15.5563	242.0000	2)
40-49	83.0000	0.0	0.0	1)
AFRICAN	66.8605	14.4644	209.2182	43)
12-19	66.7692	15.0183	225.5506	39)
20-29	69.0000	9.8489	97.0000	3)
30-39	64.0000	0.0	0.0	1)



Means by Culture and AgeStimulus Film 2: Evaluative Dimension

	MEAN	STD DEV	VARIANCE	N
	25.0645	5.2541	27.6056	124)
AMERICAN	24.5122	4.5449	20.6561	41)
12-19	22.6111	5.4572	29.7810	18)
20-29	28.6667	2.5166	6.3333	3)
30-39	25.5833	2.7784	7.7197	12)
40-49	24.6000	3.7815	14.3000	5)
50-59	28.0000	2.8284	8.0000	2)
60-69	26.0000	0.0	0.0	1)
ASIA	24.1250	6.4696	41.8558	40)
12-19	23.8286	6.6619	44.3815	35)
20-29	26.5000	4.9497	24.5000	2)
30-39	22.5000	0.7071	0.5000	2)
40-49	33.0000	0.0	0.0	1)
AFRICAN	26.4651	4.3772	19.1595	43)
12-19	26.2308	4.4925	20.1822	39)
20-29	28.3333	2.5166	6.3333	3)
30-39	30.0000	0.0	0.0	1)

Stimulus Film 2: Activity Dimension

	MEAN	STD DEV	VARIANCE	N
	28.0000	4.4338	19.6585	124)
AMERICAN	28.8293	3.7941	14.3951	41)
12-19	30.1111	2.6765	7.1634	18)
20-29	24.3333	5.6862	32.3333	3)
30-39	28.1667	3.2427	10.5152	12)
40-49	29.4000	4.5056	20.3000	5)
50-59	29.5000	7.7782	60.5000	2)
60-69	23.0000	0.0	0.0	1)
ASIA	28.2750	4.7609	22.6660	40)
12-19	28.6000	4.5452	20.6588	35)
20-29	31.0000	4.2426	18.0000	2)
30-39	20.0000	2.8284	8.0000	2)
40-49	28.0000	0.0	0.0	1)
AFRICAN	26.9535	4.5771	20.9502	43)
12-19	27.1026	4.6611	21.7260	39)
20-29	24.0000	3.0000	9.0000	3)
30-39	30.0000	0.0	0.0	1)

Means by Culture and AgeStimulus Film 2: Potency Dimension

	MEAN	STD DEV	VARIANCE	N
	25.9274	4.5873	21.0435	124)
AMERICAN	26.2195	4.4582	19.8756	41)
12-19	27.3333	3.1808	10.1176	18)
20-29	22.0000	3.4641	12.0000	3)
30-39	26.0833	6.3311	40.0833	12)
40-49	25.6000	4.2778	18.3000	5)
50-59	25.5000	2.1213	4.5000	2)
60-69	25.0000	0.0	0.0	1)
ASIA	26.0250	4.2274	17.8712	40)
12-19	25.9429	4.3787	19.1731	35)
20-29	29.0000	4.2426	18.0000	2)
30-39	26.0000	0.0	0.0	2)
40-49	23.0000	0.0	0.0	1)
AFRICAN	25.5581	5.0864	25.8715	43)
12-19	25.5641	5.3054	28.1471	39)
20-29	25.0000	2.6458	7.0000	3)
30-39	27.0000	0.0	0.0	1)

Stimulus Film 2: Summary

	MEAN	STD DEV	VARIANCE	N
	78.9919	9.6082	92.3170	124)
AMERICAN	79.5610	7.5830	57.5024	41)
12-19	80.0556	6.2823	39.4673	18)
20-29	75.0000	7.9373	63.0000	3)
30-39	79.8333	8.6638	75.0606	12)
40-49	79.6000	9.9146	98.3000	5)
50-59	63.0000	12.7279	162.0000	2)
60-69	74.0000	0.0	0.0	1)
ASIA	78.4250	11.6507	135.7378	40)
12-19	78.3714	11.8199	139.7109	35)
20-29	86.5000	13.4350	180.5000	2)
30-39	68.5000	2.1213	4.5000	2)
40-49	84.0000	0.0	0.0	1)
AFRICAN	78.9767	9.4302	88.9280	43)
12-19	78.8974	9.7786	95.6208	39)
20-29	77.3333	3.7859	14.3333	3)
30-39	87.0000	0.0	0.0	1)

Means by Culture and AgeStimulus Film 3: Evaluative Dimension

	MEAN	STD DEV	VARIANCE	N
	26.2258	5.5945	31.2982	124)
AMERICAN	27.1707	5.4125	29.2951	41)
12-19	27.1667	7.0565	49.7941	18)
20-29	30.6667	1.5275	2.3333	3)
30-39	27.4167	4.0555	16.4470	12)
40-49	25.0000	4.0000	16.0000	5)
50-59	25.0000	1.4142	2.0000	2)
60-69	29.0000	0.0	0.0	1)
ASIA	25.4750	5.7244	32.7686	40)
12-19	25.3429	5.6980	32.4672	35)
20-29	30.5000	6.3640	40.5000	2)
30-39	20.5000	3.5355	12.5000	2)
40-49	30.0000	0.0	0.0	1)
AFRICAN	26.0233	5.6463	31.8804	43)
12-19	25.5128	5.6656	32.0985	39)
20-29	30.6667	2.0817	4.3333	3)
30-39	32.0000	0.0	0.0	1)

Stimulus Film 3: Activity Dimension

	MEAN	STD DEV	VARIANCE	N
	16.6774	5.6274	31.6675	124)
AMERICAN	17.5610	6.0912	37.1024	41)
12-19	15.7778	6.1410	37.7124	18)
20-29	19.3333	6.6583	44.3333	3)
30-39	19.8333	6.3222	39.9697	12)
40-49	18.2000	4.3243	18.7000	5)
50-59	14.0000	8.4853	72.0000	2)
60-69	21.0000	0.0	0.0	1)
ASIA	15.5000	4.8569	23.5897	40)
12-19	14.9429	4.0580	16.4672	35)
20-29	24.5000	12.0208	144.5000	2)
30-39	14.0000	4.2426	18.0000	2)
40-49	20.0000	0.0	0.0	1)
AFRICAN	16.9302	5.7751	33.3522	43)
12-19	16.7436	5.7433	32.9852	39)
20-29	18.3333	8.0829	65.3333	3)
30-39	20.0000	0.0	0.0	1)

Means by Culture and AgeStimulus Film 3: Potency Dimension

	MEAN	STD DEV	VARIANCE	N
	18.1452	5.1396	26.4178	124)
AMERICAN	18.8049	4.2084	17.7110	41)
12-19	18.5000	5.8737	34.5000	18)
20-29	18.0000	2.6458	7.0000	3)
30-39	18.7500	1.8153	3.2955	12)
40-49	19.8000	3.3466	11.2000	5)
50-59	19.5000	3.5355	12.5000	2)
60-69	21.0000	0.0	0.0	1)
ASIA	17.6000	5.2075	27.1179	40)
12-19	17.1143	4.7760	22.8101	35)
20-29	21.5000	2.1213	4.5000	2)
30-39	22.0000	14.1421	200.0000	2)
40-49	18.0000	0.0	0.0	1)
AFRICAN	18.0233	5.8817	34.5947	43)
12-19	17.7436	5.8746	34.5115	39)
20-29	20.6667	7.3711	54.3333	3)
30-39	21.0000	0.0	0.0	1)

Stimulus Film 3: Summary

	MEAN	STD DEV	VARIANCE	N
	60.3468	11.8487	140.3910	124)
AMERICAN	63.0244	12.0426	145.0244	41)
12-19	59.9444	14.6547	214.7614	18)
20-29	67.0000	12.1655	148.0000	3)
30-39	66.8333	8.8814	78.8788	12)
40-49	63.2000	8.6139	74.2000	5)
50-59	58.5000	14.8492	220.5000	2)
60-69	69.0000	0.0	0.0	1)
ASIA	58.0500	10.5605	111.9462	40)
12-19	56.9143	9.3033	86.5513	35)
20-29	75.5000	21.9203	480.5000	2)
30-39	56.0000	14.1421	200.0000	2)
40-49	67.0000	0.0	0.0	1)
AFRICAN	59.9302	12.5250	156.8760	43)
12-19	59.0000	12.3608	152.7895	39)
20-29	68.6667	14.4684	209.3333	3)
30-39	70.0000	0.0	0.0	1)

Means by Culture and AgeStimulus Film 1: Evaluative Dimension

	MEAN	STD DEV	VARIANCE	N
	22.8952	6.4780	41.9645	124)
AMERICAN	23.7317	6.0333	36.4012	41)
12-19	23.3333	7.7611	60.2353	18)
20-29	23.0000	11.2694	127.0000	3)
30-39	25.1667	3.0401	9.2424	12)
40-49	23.4000	2.7019	7.3000	5)
50-59	21.5000	2.1213	4.5000	2)
60-69	22.0000	0.0	0.0	1)
ASIA	21.3500	6.2616	39.2077	40)
12-19	20.5143	5.8980	34.7866	35)
20-29	30.5000	6.3640	40.5000	2)
30-39	23.0000	7.0711	50.0000	2)
40-49	29.0000	0.0	0.0	1)
AFRICAN	23.5349	6.9603	48.4452	43)
12-19	23.2821	7.2509	52.5762	39)
20-29	25.3333	1.5275	2.3333	3)
30-39	28.0000	0.0	0.0	1)

Stimulus Film 1: Activity Dimension

	MEAN	STD DEV	VARIANCE	N
	22.9194	6.1639	37.9934	124)
AMERICAN	25.5854	4.4101	19.4488	41)
12-19	26.6111	5.3921	29.0752	18)
20-29	23.6667	4.0415	16.3333	3)
30-39	25.9167	2.3143	5.3561	12)
40-49	24.4000	5.1769	26.8000	5)
50-59	21.0000	1.4142	2.0000	2)
60-69	24.0000	0.0	0.0	1)
ASIA	21.5500	6.7594	45.6897	40)
12-19	21.3714	6.8732	47.2403	35)
20-29	26.5000	2.1213	4.5000	2)
30-39	17.0000	7.0711	50.0000	2)
40-49	27.0000	0.0	0.0	1)
AFRICAN	21.6512	6.3204	39.9468	43)
12-19	21.7436	6.5322	42.6694	39)
20-29	21.3333	4.9329	24.3333	3)
30-39	19.0000	0.0	0.0	1)