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TEACHING HAPTICS IN THE BASIC SPEECH COURSE:

A STUDY OF MEANS AND EFFECTS

DISSERTATION

Presented to the Graduate Council of the  
North Texas State University in Partial  
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

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The problem of this study was the investigation of the desirability of teaching haptics in the basic speech classroom, the rhetorical means and strategies to be used, and the design used to describe these means.

The purposes of this study were (a) to develop a philosophical rationale for the need to teach haptics in the basic speech course, (b) to develop instructional methods and strategies as a means of teaching haptics, (c) to assess the success for the means in terms of behavioral change, and (d) to examine the relationship between variables important in experiencing others haptically in an experimental design.

The curriculum unit on haptics designed for this study included printed and media materials. The printed materials consisted of the instructor's lesson plans, cognitive and affective learning objectives, and a reader's theatre script. The media materials included a black-and-white slide presentation with a voice script and a color slide presentation with a music tape.

The participants in this study were sixty-four students who were enrolled in four sections of Basic Speech Communication at the University of Alabama in Huntsville, during the

academic year 1976-1977. There were thirty-two students in the experimental group and thirty-two students in the control group. The treatment for the experimental group was presented in ten hours of classroom time during the sixth week of an eleven-week term and consisted of the curriculum unit on haptics designed for this study. The control group was involved in only the regular expository-types of activities used in the multiple approach to the basic speech course. All four sections of the course had the same instructor.

Pre-test and post-test data were collected from the Fundamental Interpersonal Relations Orientation-Behavior Scale (FIRO-B), the Semantic Differential for Touch, the Touch Awareness Inventory, and the Cognitive Mapping Instrument.

Ten hypotheses were tested in this study. The first four hypotheses stated that there would be significant differences between the post-test scores of the experimental and control groups. It was hypothesized that the experimental group would make significant gains as measured by the four instruments. The fifth hypothesis stated that there would be a significant relationship between scores on the Semantic Differential for Touch and the Touch Awareness Inventory. The sixth through the tenth hypothesis dealt with relationships between variables on the Touch Awareness Inventory. The statistical methods used were the t-test, one-way analysis of variance, the Pearson-Product Moment Correlation, correlation analysis,

and regression analysis. The minimum .05 level of significance was prescribed as necessary to reject the null hypotheses.

The results of the statistical analyses revealed that the differences between the experimental and control groups on the four instruments were not statistically significant. No significant relationship was found between scores on the two instruments. Only two of the hypotheses dealing with the variables on the Touch Awareness Inventory proved significant.

Findings derived from personal observations indicated that the experimental group became aware of their own strengths and weaknesses in non-verbal communication. It was also evident that factors in addition to increased scores should be considered in research concerning the teaching of haptics in the basic speech course.

In view of these findings, it was recommended that further research be conducted to discover new means of teaching haptics and new methodology developed to measure its effects on interpersonal communication.

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## CHAPTER I

### INTRODUCTION

A chapter on nonverbal communication is found in the majority of college level textbooks written for the basic course in speech since 1970. Although the nature of the basic course is a controversial issue in 1977, most professionals do accept the definition used in a 1970 survey report in which the basic course is defined as "that course required or recommended for a significant number of undergraduates" (8). Research would seem to indicate that the basic course is changing from a course stressing the fundamentals of public speaking to a course in communication (9). From a message-centered, speaker-oriented curriculum, the course is evolving to one which is meaning-centered and receiver-oriented. Communication models presented in a communication course emphasize the transactional nature of the process of communication rather than the stimulus-response, idea-transmission model.

Not all colleges and universities in the United States have made the change from the fundamentals and public speaking orientation to a broadly-based interdisciplinary approach to human communication (9). However, there is clear evidence of a trend in that direction. In 1968, 54.5 per cent of the

courses were reported to be oriented toward public speaking; in 1973, 12.8 per cent; in 1968, 4.5 per cent taught a course called communication; in 1973, 24.5 per cent; in 1968, 2.2 per cent voice and diction; in 1973, 1.3 per cent; and in 1968, 13.2 per cent the multiple approach; in 1973, 39.4 per cent (9). This is an increase in five years of 20 per cent in communication courses with an additional 26 per cent increase in the multiple approach. (This approach includes intrapersonal, interpersonal, and public mode.)

In order to avoid simply changing the name over the door, educators who teach a basic speech course called communication find themselves becoming behavioral scientists with interdisciplinary interests in cultural anthropology, psychology, sociology, linguistics, semantics, and philosophy. These educators argue that because communication transactions occur in relationships and because the nature of every interpersonal relationship is ultimately defined nonverbally (30), nonverbal communication should be an integral part of the curriculum in the communication classroom.

Colleges and universities may offer both public speaking and communication courses assuming that the two courses should (a) achieve different affective or cognitive behavioral objectives and (b) permit students to select the course most beneficial to their intellectual and career goals on the basis of the objectives most appropriate to their desired behavior. However, in a comparative study done at the

University of Florida in 1975, these assumptions were not confirmed (25). Results of the study suggest that both courses are helping the same type of student: that both courses "tone down over-expressive behavior better than they help the under-expressive student" (25, p. 132). "Such a result," state the authors, "would indicate a need to alter course strategies in order to reach more effectively the under-expressive student" (25, p. 132).

In what ways, then, should we alter course strategies? In 1970, Fisher wrote,

Textbook writers and beginning speech instructors need to have a regard for the implicit teaching that they do--what notion of man they subscribe to, whether these notions are upheld by twentieth century philosophy and psychology (7, p. 210).

He did not declare one orientation better than another one; his contention was that "choices of orientation are inevitably made and they should be philosophic rather than purely pragmatic decisions" (7, p. 210).

#### Statement of the Problem

The problem of this study was the investigation of the desirability of teaching haptics, the use of touch, in the basic speech classroom, the rhetorical means and strategies to be used, and the design used to describe these means.

#### Purposes of the Study

The purposes of this study were (a) to develop a philosophical rationale for the need to teach haptics in the basic

speech course, (b) to develop instructional methods and strategies as a means of teaching haptics, (c) to assess the success of the means in terms of behavioral change, and (d) to examine the relationship between variables important in experiencing others haptically in an experimental design.

### Hypotheses

In order to fulfill the purposes of this study and to describe the effect of the instructional methods designed as the means, the following hypotheses were generated with the curriculum on haptics as the treatment.

Hypothesis 1.--The treatment will result in decreased discrepancy scores between students' self-reports of wanted and expressed behavior as measured by the FIRO-B.

Hypothesis 2.--The treatment will result in an increase in the mean positive attitudes toward haptics as measured by the Semantic Differential for Touch.

Hypothesis 3.--The treatment will result in an increase in the quantity of touch communication received as measured by the Touch Awareness Inventory.

Hypothesis 4.--The treatment will result in a significant increase in the percentile score for tactile communication as measured by the Cognitive Mapping Instrument.

Hypothesis 5.--There will be a significant relationship between attitude toward touch and the quantity of touch encounters received as measured by the Touch Awareness Inventory.

Hypothesis 6.--Adult females from eighteen to fifty-nine will receive significantly more touch than do adult males of the same age as measured by the Touch Awareness Inventory.

Hypothesis 7.--There will be no significant relationship between age and quantity of touch received as measured by the Touch Awareness Inventory.

Hypothesis 8.--There will be a significant relationship between the quantity of touch communication encountered and the mode of touch as measured by the Touch Awareness Inventory.

Hypothesis 9.--There will be a significant relationship between the quantity of touch communication encountered and the setting as measured by the Touch Awareness Inventory.

Hypothesis 10.--There will be a significant relationship between the sex of the receiver and the sex of the sender as measured by the Touch Awareness Inventory.

## Background and Significance of the Study

Although nonverbal communication as a rhetorical strategy is included in the majority of basic speech textbooks published since 1970, the few verbal or nonverbal curriculum materials which are available were generally developed by the Third Force Writers (32) for use in encounter and sensitivity groups. These materials are not always appropriate for use in a college speech course--particularly a basic one which includes majors from all disciplines with different inclusion and affection needs (32).

Since many of the nonverbal exercises on haptics do make students feel uncomfortable (32), instructors in the basic course often rely on verbal materials to teach nonverbal communication. Thus students of the electronic age are expected to use the "hot" medium of print to "learn" about it. Marshall McLuhan (18) would call this apparent contradiction an example of our narcissistic narcosis; Margaret Mead (13) would label it illustrative of our post-figurative view in education; and William Glasser (10) would describe the method as characteristic of the gap between a culture dependent on role orientation and an identity society.

Teaching nonverbal communication, particularly touch, should involve the student in confluent education (31).



Teaching haptics should be confluent education; it should combine both the affective and cognitive elements in individual and group learning (31). An effort should be made to avoid what Paul Tillich has called the fatal pedagogical error--"To throw answers like stones at the heads of those who have not yet asked the questions" (12, p. 15).

Haptics is primal communication, and students in our basic speech courses need to be aware of the power of touching and encouraged to ask questions about the role of haptics in human development (1, 28).

Studies with young monkeys and gentled rats are evidence of the importance of haptics in the animal world (20, 12). These studies are reported in Ashley Montagu's classic work Touching. Montagu also documents studies done with human young and declares:

Cutaneous stimulation in the various forms in which the newborn and young receive it is of prime importance for their healthy emotional or affectional relationships, that "licking," in its actual and in its figurative sense, and love are closely connected; in short, that one learns to love not by instruction but by being loved (20, p. 35).

The role that the skin plays in establishing the quality of the infant's interpersonal relationship with the mother is often understated according to Montagu. In "The Sensory Influences of the Skin," written for Texas Reports of Biology and Medicine, he analyzes the need for cutaneous stimulation as follows:

Physiological Tension	= Urge or Need to-->	Which Leads to the Act of-->	Satisfaction <u>Homeostasis</u>
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General Tension = be caressed--> contact--> soothing effect  
(21, p. 299).

Montagu then asks, "Is it possible that we need to caress, to massage, infants rather more than we have recognized as necessary in the past" (21, p. 299). Another, perhaps more salient question for the educator follows, "May it not be that if we massage his skin in infancy [see Rice, 1975] it may later be unnecessary for a physician to massage his psyche" (21, p. 299).

Current researchers would answer affirmatively to both questions and add a third: Do adults need touch? If so, how much?

The consensus is that United States adults do not touch (2, 3, 4, 6, 11, 12, 14, 15, 17, 20, 22, 27, 29). How much touch they need is an area rarely explored. Sidney Jourard, who did much of the research now available, states: ". . . we know little about the conditions under which a person will permit another to touch him, the meanings people attach to touching and being touched, the loci of acceptable touch, and little of the consequences of body-contact" (14, p. 137). Jourard's studies show that touching seems to be culture-bound (14, 15, 16). He watched pairs of people talking together in coffee shops and counted the number of times one person touched another in a one-hour setting. The "score"

was San Juan (Puerto Rico), 180; Paris, 110; London, 0; and Gainesville (Florida), 2.

The need for adults to touch is a subject of a sermon by Michael Young entitled, "The Human Touch: Who Needs It?" in which he clearly states his position.

We need to touch. Perhaps in our artificial technologized culture we need closeness and intimacy of touch more than ever. Our Western culture has achieved such a level of cerebration, of the worship of intellect and intellectualizing, that we are terrified of touch (33, p. 240).

Paul Bindrim agrees with this position. He declares,

I reasoned that just as a lack of tender, tactile contact seems to be responsible in certain cases for infant deaths, the same deprivations may produce a nonlethal but chronic tension and anxiety among adults . . . . Perhaps the social world is such a jungle of polite estrangement that sensory isolation may create a famine in the heart that cannot be relieved by any one person, even one's mate (2, p. 548).

Jourard, Young, and Bindrim all emphasize the need for the caring use of touch. Jourard writes: "In touching you I know that you exist in ways that seeing you or hearing you cannot confirm" (14, p. 39). Both Young (33) and Gunther (11) believe that the courtship-intercourse situation is virtually the only allowable intimacy for adults in our Western culture. Young continues his declaration:

We fill that one allowable intimacy with all our needs to touch. We thrust all sorts of totally inappropriate feelings into that relationship. That one act must bear the weight of all our needs to communicate what cannot be said (33, p. 242).

Vance Packard's book The Sexual Wilderness seems to validate this hypothesis. He found evidence that sexual experience was sometimes an attempt to equate love and touch. He writes, "A sexually experienced girl at one of the Eastern woman's colleges said that she felt that her own experiences had been 'a kind of impatient searching for love outside the home'" (22, p. 165). In another case, a girl at a university in New York City suggested that many couples find themselves copulating simply because they have no other way of communicating successfully. "Sex," she said, "had become a sort of skin language . . . . People don't commit themselves verbally because they are afraid of being misunderstood and so they try to say with their bodies what they can't say with their words" (22, p. 183).

These statements and Packard's research agree with the results of Jourard's studies. He concludes,

. . . unless a young person has an intimate friend of the opposite sex, he is unlikely to experience his body as it feels when it is touched or caressed. . . . This supports the impressions of Laing that we tend to be somewhat unembodied in our usual, non-sexual interpersonal relationships (16, p. 47).

The importance of haptics in primary relationships is thus relatively well documented at this time, and some researchers, educators, and health care specialists are beginning to write about the importance of haptics in helping relationships which are secondary in relationship value. Jourard (14) believes in lifting the taboo on touch in the

psychotherapy situation. In an article in ASHA, a monthly publication of the American Speech and Hearing Association, Engolf (16) advocates this same position for speech, language, and hearing therapy situations. He cites an example of an aphasic person who consistently touches his listener and explains that action by saying, "You know, I have to touch someone. It helps me get my thoughts organized" (6, p. 516). Moreover with the movement toward humanizing the doctor-patient relationship, more physicians are becoming aware of the importance of haptics (19, 23, 24). Barnett (2) did her doctoral dissertation on the importance of touch communication in the treatment of patients in hospitals. Haptics in the public school classroom is still a very controversial issue. However, Simon (28), is an advocate of teaching and modeling haptics in interpersonal communication on the junior and senior high level. He believes that our present educational system results in "skin hunger" in our students.

Writing in Human Behavior about tactile art, writer and sculptor Richard Register, himself convinced of the significance of touch in human behavior, reminds the reader that the "sense of touch was the first sense acquired by living organisms, and it remained the only sense for the first billion years" (26, p. 16). He concludes by stating,

To call it "basic" may be to miss the point that touch is the parent of our eyes, ears, nose, and mouth. It is the sense that became differentiated into the others. Our earliest pre- and post-natal awareness came to us via

touch, and on our deathbeds, with eyes closing, and darkness falling, touch is that place through which we shall all pass on our way to that deep unknown (26, p. 16).

Egolf concludes his ASHA article by stating,

For the pantomimist, the dancer, photographer, and the model, nonverbal communication is the primary art. Although we obviously cannot so regard it in the realm of total human interaction, neither can we dispute its reality and relevance. Nonverbal exchanges broaden the horizons of interpersonal communication and expand the expressive boundaries of the verbal world. They express, at times, what words cannot, and often the nonverbal message rather than the verbal determines the nature of an interpersonal encounter (6, p. 517).

All this leads to the conclusion that haptics is an important mode of nonverbal communication. Haptics should be taught in the basic speech course, and our students should be encouraged to ask questions about the significance of haptics in their interpersonal relationships. The proposed approach will not "throw answers like stones" (5, p. 15).

#### Need for This Study

In the research on nonverbal communication, kinesics (body movement), vocalics (paralanguage), and proxemics (use of social and personal space) have received the most attention. Only a relatively few studies have concerned haptics (use of touch) as a means of nonverbal communication or considered its significance in interpersonal relationships. By investigation of means and effects of teaching haptics in the basic speech course, this study will expand the body of basic knowledge in the field of nonverbal communication.

## Definition of Terms

Nonverbal communication.--The term "nonverbal" is commonly used to describe all human communication events which transcend spoken or written words. Research in this form of communication includes studies of proxemics (use of space), oculusics (eye contact), kinesics (body movement), vocalics (paralanguage), chronemics (use of time), and haptics (use of touch). (See Appendix B for codification differences between verbal and nonverbal communication.)

Haptics.--The rhetorical term for the use of touch is often used in articles and textbooks which are rhetorically based. It is used throughout this study with its synonym, touching behavior.

Basic course.--For the purpose of this study, the basic course will be defined as that course either required or recommended for a significant number of undergraduates; it is that speech course which the department either has or would recommend as being required for all or most undergraduates if the college administration asked it to name a course so required.

Confluent education.--The term for the integration or flowing together of the affective and cognitive elements in individual and group learning--sometimes called humanistic or psychological education.

## Procedures

An experimental study was designed to measure the behavior of students who have been taught haptics in the basic course and to contrast it with behavior of students in the basic course who have not had instruction in haptics. All other curriculum materials will remain constant.

The investigation of means focused on testing for content and construct validity of the multimedia materials designed for this study. Materials created for this study were pretested in classrooms and workshops previous to inclusion in the dissertation. Feedback on curriculum materials was obtained from students, inservice teachers, and an advisory group of university research professors.

The investigation of effects focused on the use of an experimental design to measure the direction and amount of behavioral change produced by the treatment.

### Experimental Design

Subjects.--Male and female students enrolled in the basic speech course at The University of Alabama in Huntsville during the academic year 1976-1977 were used as subjects. Sixty-four subjects were studied; thirty-two in the experimental group (sixteen in each cell) and thirty-two in the control group (sixteen in each cell).

Four intact classroom groups taught by one instructor were used. A combination of the Pretest-Posttest Control



Group Design and the Posttest-Only Control Group Design as described by Campbell and Stanley was utilized with extant intact comparison groups.

Each subject was asked to sign an "Informed Consent Form" stating that he understood the purpose of the experiment and agreed to participate. This action is required by the Committee on Human Use of Subjects at The University of Alabama in Huntsville. The form assures the student that his choice to participate in the study will in now way affect his individual course grade.

Method.--Four instruments were administered to both the experimental and control groups in the regular classroom. The two instruments used in the Pretest-Posttest Control Group Design were the Fundamental Interpersonal Relations Orientation Behavior Scale (FIRO-B) and the Semantic Differential for Touch. The Posttest-Only Control Group Design was used with two instruments, the Touch Awareness Inventory (TAI) and the Cognitive Mapping Instrument. These two designs were combined because the latter design has better control for interaction of testing and treatment; this control was needed due to the nature of the TAI and the Cognitive Mapping Instrument.

The pre-test was given the fifth week of the eleven-week term to both groups followed in the sixth week by the treatment for the experimental group only. The post-test involving all four instruments was administered in the

seventh week. For the pretest the instruments were administered in the following order: (a) FIRO-B and (b) The Semantic Differential for Touch. This order was repeated in the posttest session followed by the Cognitive Mapping Instrument and the Touch Awareness Inventory. The first three instruments were completed by the subjects in the classroom; the fourth instrument required a four-day field study.

Instruments.--(a) The FIRO-B scales by Schutz measure a person's characteristic behavior toward people in the areas of inclusion, control, and affection. Satisfactory scores are available for content, concurrent, construct, and predictive validity. One scale was designed to measure wanted behavior (I want people to get close and personal with me), and the other was designed to measure expressed behavior (I act close and personal toward people). Both scales are designed to measure how a person acts in an interpersonal situation. The internal consistency of these scales is very high with a reproductibility coefficient of .94 for each scale. Test-retest reliabilities (one month separation) are .76. As inclusion, affection, and even control can be expressed haptically; a reduction in discrepancy scores between wanted and expressed behavior as measured on the three scales would indicate a significant improvement in interpersonal communication skills. This instrument is found in Appendix C.

(b) The Semantic Differential for Touch was designed by Mark Knapp, Professor of Communication, Purdue University, and based on work by Osgood. This model consists of eleven polar scales. The intensity of the rating was indicated by the position of the subject's mark on a seven (+3, -3) point scale where 0 is the neutral position. This semantic differential was pretested and the results are available in Appendix A. The instrument is found in Appendix C.

(c) The Touch Awareness Inventory was designed for this study. It is a receiver-oriented self-report instrument which requires each subject to keep a record for four days of the number of interpersonal encounters he has experienced in which haptics was used as a mode of nonverbal communication (a touch communication encounter is defined as a communicative encounter, a transaction involving "hello" and "goodbye," with touch as part of the transaction). This measure was pretested and results are available in Appendix A. The instrument is found as Appendix C.

(d) The Cognitive Mapping Instrument is based on work by J. E. Hill and is used by Professors Richard and Linda Huen at Northeast Missouri State University in their basic speech communication course. This instrument was given post-test only to both the experimental and control group. Reliability of the instrument has been established at .865 for the subscale involving learning by tactile communication and validity for this subscale is .748. This is a paper and pencil

instrument which is computer scored and results in a print-out of the subject's learning styles (areas of maximum strength, minimum strength, and negligible strengths). A difference in the scores between the experimental and the control group will be considered an indication of the success of the treatment. The instrument is found in Appendix C.

Treatment.--The curriculum materials on haptics designed for this study were used as the treatment in the investigation of the effects. The treatment took place in the regular classroom. It involved six hours of classroom time plus four hours of out-of-class assignments for a total of ten hours. The treatment was divided into materials for cognitive and affective learning. These materials were reviewed by experts in the field (see Appendix E).

Cognitive.--A black-and-white slide presentation was shown summarizing the role of haptics in human development from the point of view of research completed and in progress. In addition, students read printed material in the textbooks for the course (Speech Communication and Born to Win), journal articles, and supplementary handouts. Small group discussions were held with the emphasis on the informational content of the messages received. Cognitive behavioral objectives were written and are found in the appendices.

Affective.--A tape of the reader's theatre presentation found in Appendix D was followed by a color slide presentation accompanied by popular music. Exercises involving expressing emotions haptically in dyads and small groups followed the slide presentation. An effort was made to achieve a balance of males and females in each group.

An example of small group exercises which may be non-threatening is the getting acquainted exercise by Brown (4) found in the appendices. Small group discussion followed the exercises with the emphasis on how students felt about the role of haptics in their own emotional development. Affective behavioral objectives were written and are found in the appendices.

#### Analysis of Data

Hypotheses 3, 4, 6, 7, and 10 were tested using analysis of variance.

The t-test, a special case of the F-test was used to test hypotheses 1 and 2.

Hypotheses 8 and 9 were tested using correlation analysis. This analysis was performed on all variables to determine their relationship. Age, sex, frequency of encounter by opposite sex, and frequency of encounter with the same sex were included for the Touch Awareness Inventory. The mode was partitioned into inclusion/exclusion; setting, public/private within the correlational analysis.

Hypothesis 5 was tested using the Pearson-Product Moment correlation.

A regression analysis was run on the variables involved in the Touch Awareness Inventory. This analysis involved Hypotheses 8 through 10.

#### Organization of the Study

The development and findings of this study are presented in five chapters. In Chapter I the introduction and procedures used in completing the study are presented. Chapter II presents a review of the related literature. The related literature is divided into four areas: Haptics as Primal Communication, Haptics and Young Animals, Haptics and the Human Young, and Haptics and Adults. The Philosophical Rationale concludes Chapter II.

Chapter III details the procedures employed in conducting the study. The subjects involved in the study are described. Descriptions of the curriculum unit on haptics used as the treatment are presented. The section on the procedures for the collection of data includes information concerning the design of the study, instrumentation, and procedures for analyzing the data.

In Chapter IV the data which resulted from this study are presented and analyzed. Chapter V consists of the findings which were drawn from the analysis of the data. Conclusions which were formulated on the basis of the findings

are presented. Appropriate recommendations, which are based on the findings, conclusions, and personal observations of the study, conclude Chapter V.

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## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Haptics as Primal Communication

Communication is essential to man's "humanness," and as humans we communicate with our environment through our skin. Pre-natal and post-natal experiences come through the skin; thus haptics, the "rhetorical messenger" of the skin, is our first and most elementary mode of communication (29). Haptics is the first "language" we understand (7).

Two decades ago in Texas Reports of Biology and Medicine, Montagu wrote of the importance of experiencing others haptically. He declared that there may be more truth than fiction in the old saying that love is the harmony of two souls and the contact of two epidermes (29, p. 296). Indeed, current research does seem to support the statement made by Spurgeon English that love and touch are inseparable and indivisible, that love cannot arise in the human being without touch and sensuous arousal, and that the cooperation necessary for social conformity is not possible without love and tactile stimulation (29, p. 298). Recent research with young animals and young infants indicates that the young will die without touch, that the two are inseparable and indivisible (1, p. 226). The implication seems clear; we cannot live without either one. Haptics is basic, primal communication.

The importance of cutaneous stimulation in young animals and human infants is well documented. What perhaps is not as well documented is the knowledge that ants, bees, and termites are also social species. When ants and bees are isolated, they have no option, except to die (43, p. 62).

Termites are considered intensely social creatures as they can only adapt to group behavior. Studies with grouped termites indicate that the central governing mechanism is the touching of antennae. In The Lives of a Cell, Thomas writes,

It is the being touched that counts, rather than the act of touching. Deprived of antennae, any termite can become a group termite if touched frequently enough by others (43, pp. 62-63).

Thomas cites studies by Watson, Nel, and Newitt who observed the antisocial behavior of isolated, paired termites. They report that as soon as the pair is removed from the group, and the touching from all sides comes to an end, "they become aggressive, standoffish, they begin drinking compulsively, and abstain from touching each other" (43, p. 63). Although the paired, isolated termites do not die, Thomas writes that sometimes they even bite off the distal halves of each other's antennae, "to eliminate the temptation" and "irritably" settle down to take care of the brood (43, p. 63).

The human infant is also dependent on others to supply his needs and touch him. Kelley (39) writes that the child is "built" by people close to him. Thomas believes that

man is a social species and that "this is, by and large, a good thing for us" (43, p. 68). Hugh Prater puts it this way, "Perceptions are not of things but of relationships. Nothing, including me, exists by itself--this is an illusion of words. I am a relationship, ever-changing" (40, p. 28). Experiments with lower animals are important indications of the human need for haptics. Scientific studies in entomology and antropology indicate that need for cutaneous stimulation is phylogenetically basic. Montagu reasons in his 1953 article,

One of the best ways of determining whether a particular function is basic or not, is to discover how widely distributed it is in the class of animals to which the propositus belongs, for what is phylogenetically basic is likely to be physiologically significant. So let us go to the lower animals. We may be able to learn something from them about the human skin (29, p. 292).

#### Haptics and Young Animals

A comprehensive review of the literature published during the past two decades is found in Ashley Montagu's book Touching. In reviewing studies of young animals and the basic needs of human infants, he concludes that the importance of cutaneous stimulation appears to be more and more recognized (28). Studies with young animals indicate that stimulation of the peripheral sensory nerves of the skin is required to activate the digestive and eliminative system (28). Licking seems an integral part of this process.

Harry Harlow, at the Primate Laboratory at the University of Wisconsin, has conducted much of the early research on social development with young animals in experiments with the rhesus monkey. Harlow's experiments indicate that in young monkeys, "contact comfort is a variable of overwhelming importance in the development of affectional responses, whereas lactation is a variable of negligible importance" (1, p. 67). In her doctoral dissertation, Clay reviews the experiments on which this theory is based.

When Harlow began his research, he found that baby monkeys raised without a mother on a bare wire-mesh cage floor had a very high mortality for the first five days of life. When folded gauze pads were added to cover the floor, they did much better. . . . More infants survived when Harlow introduced a wire-mesh cone, and when he covered the cone with terry cloth creating cloth mothers, physically healthy babies resulted (7, p. 69).

Thus, from this experiment, Harlow concluded that the young monkey's need for intimate physical contact far exceeds its need to nurse. He goes so far, declares Clay, as to suggest that "the primary function of nursing as an affectional variable is that of enduring frequent and intimate body contact of the young infant with the mother" (7, p. 70). Results of later experiments by Harlow indicated that unless this need is met, young monkeys are unable to engage in normal year-old monkey behavior and appear to be "arrested in their affectional development at the early attachment stage" (7, p. 72). Follow-up experiments suggest that young monkeys so

deprived are unable to relate to their own young as they become adult.

Recent experiments conducted at the University of California, Davis, with primate paternalism indicate that while adult male rhesus monkeys rarely display parental behavior in the wild, they are certainly capable of doing so when given the opportunity in the laboratory. Moreover, the researchers found rearing by adult males to be effective in raising socially and physically healthy rhesus monkeys. This is true in spite of the differences in rearing styles described by the researchers, Mitchell, Redican, and Gomber.

. . . paternal behavior is not merely maternal style adopted by an adult male. Rhesus paternalism differs significantly from maternalism in several ways. Paternal-infant attachment decreases with time, a normal adult male monkey protects his infant by moving toward the threat while the female retrieves her infant and withdraws, and adult males play more frequently and intensely with their infants than rhesus mothers do (27, p. 68).

This experiment would seem to support Harlow's thesis. Harlow concludes, as stated earlier, that the infant monkey's need for intimate physical contact far exceeds its need to nurse. Deprivation of this need to experience the mother haptically thus produced young monkeys who were socially and emotionally maladjusted in his experiments. When separated from their mothers and then reunited, Harlow's monkeys would cling to the mother and refuse to explore

their surroundings. This need for physical contact seemed to have been met by males in the Mitchell, Redican, and Gomber experiments.

We learn from experiments with young rats, mice, cats, dogs, and rabbits that licking by the mother makes possible urination for the young and without this stimulation they will die (28). In Touching, Montagu relates this to the needs of the human infant.

What emerges from the observation and experiments reported here--and there are many more with which we shall deal in subsequent pages--is that cutaneous stimulation in the various forms in which the newborn and young receive it is of prime importance for their healthy emotional or affectional relationships, that "licking," in its actual and in its figurative sense, and love are closely connected; in short that one learns to love not by instruction but by being loved (28, p. 35).

#### Haptics and Human Young

Montagu declares that the role that the skin plays in establishing the quality of the infant's interpersonal relationship with the mother is often understated. In 1953 he asked, "Is it possible that we need to caress, to massage, infants rather more than we have recognized as necessary in the past?" (27, p. 299). A second question followed: "May it not be that if we massage his skin in infancy it may later be unnecessary for a physician to massage his psyche?" (27, p. 299). In his 1957 monograph, Frank (11) suggests that tactile stimulation during infancy is extremely



important to the development of the individual. He feels that inadequate haptics may retard and mar the development in a variety of areas, such as in speech, cognition, symbolic recognition, and capacity for more mature sensitivity (11). He adds that existing data have revealed that individuals receiving inadequate tactile stimulation in infancy are susceptible to disorders of the gastro-intestinal and respiratory tracts and possibly the genito-urinary tract (3, p. 6). Yarrow's research indicates that babies who have been given plenty of physical stimulation by their mothers have significantly higher I. Q.'s than those receiving less contact (1, p. 277).

Recent research by Rice (34) would indicate that we do need to massage infants more than we have recognized as necessary in the past. In her dissertation study, thirty babies born prematurely at Parkland Hospital, Dallas, Texas, represented the population. Fifteen of the babies received 120 fifteen-minutes "touch and movement" treatments during their first month. Each mother was instructed to give her baby fifteen minutes of stimulation four times every day for a month. The other fifteen, the control group, received standard home care for prematures.

As the babies reached the age of four months, they received a thorough physical, neurological, mental, and motor assessment at a public health clinic. The findings were quite dramatic.

1. The infants who received daily stimulation therapy for thirty days had made significant gains over the control group in weight gain, neurological development and mental development.

2. The stimulated babies even surpassed the neurological growth standards for normal full-term babies when age adjustment is applied (33, p. 9).

Rice recommends that the thirty babies be reassessed at ages one, three, and six to see if the differences still exist.

Another current research effort is being conducted by Gluck. Gluck's theory is that some babies who die of crib death are simply born before their sympathetic nervous systems were developed enough to keep them breathing on their own, they received no stimulation to help complete the neurological growth. Gluck, a pediatrician, places prematures on small warm waterbeds to recreate the atmosphere of the womb in an effort to provide a smooth transition from prenatal stimulation of the amniotic fluid of the womb.

Rice remarks,

Consider how abrupt and unnatural we have made the transition from the womb to life . . . before birth, the baby's senses are constantly bombarded with stimuli. The muscular walls massage the infant every time the mother moves, walks, bends, breathes. . . . The infant is caressed by the amniotic fluid as it continuously enters and leaves the uterine cavity. The baby stretches his own body, and bends, folds and unfolds his arms and legs. . . . The activity developing fetus swims about in his dark, watery cradle, weightless and buoyant as an astronaut, capable of free-floating movement and reflexive action (33, p. 8).

Rice feels that the sudden change from this environment to the "absolute blank of the sterile incubator-isolette, where

there is no touching, movement, no sound," brings on disabilities and defects so common to prematures (33, p. 8).

In France, Leboyer, an obstetrician is currently experimenting with ways to make birth less traumatic. In his book Birth Without Violence, he outlines his procedures. He aims the lights when a baby is about to be born and instructs his helpers to speak in whispers. Instead of cutting the cord, up-ending the infant and whacking him into breathing, screaming action, he places the infant on the mother's stomach. There she massages him until the umbilical cord stops pulsating. During these minutes, the baby continues to get oxygen from the cord while getting used to breathing the strange new air. The cord is cut when pulsation stops and the baby gasps and starts breathing. Leboyer then immerses the infant in a two-minute lukewarm bath, a reminder of the warm, liquid environment of the uterus (34).

Results of the effect of maternal deprivation on children are reported in the literature on human development. When babies fail to receive physical stimulation and attention from another human being, they die. Marasmus was the term used in the nineteenth and early twentieth centuries to denote this "disease." In some orphanages at that time, the morality rate was nearly 100 per cent (1, p. 225). If children who suffer from this "disease" live, research confirms that they withdraw from social contact. In this way,

they are like the infant monkeys. Both infant monkeys and humans deprived of maternal (or surrogate) intimate physical contact fail to develop trust in relationships and, if they survive the high mortality rate of the first month, are not able to risk intimacy with the young in adulthood (1, 8, 34).

In Childhood and Society, Erikson declares that "the firm establishment of enduring patterns for the solution of the nuclear conflict of basic trust versus basic mistrust in mere existence is the first task of the ego, and thus first of all a task for maternal care" (8, p. 249). Erikson theorizes that the need for intimate physical contact must be met if trust is to be established as part of the human infant's developing ego. Frank would agree with Erikson that the experiences between baby and mother establish the individual's early patterns of intimacy and affection. In addition, Frank believes that for the child ". . . first interpersonal relationships . . . apparently persist as a sort of template by which he establishes his subsequent interpersonal relations" (3, p. 41). Erikson declares that early experiences that build trust result in the development of a very different individual than the person whose first experiences result in mistrust. Negative attitudes toward one area of interpersonal behavior tend to spread over congruent areas and what Erikson called the "goodness of sensuality" is denied (8, p. 252). Erikson writes,

The result was that men were born who failed to learn from their mothers to love the goodness of sensuality before they learned to hate its sinful uses. Instead of hating sin they learned to mistrust life (8, p. 252).

An individual whose early experiences have failed to build trust may have relatively low self-esteem (4, 20). Silverman's research indicates that high self-esteem subjects are able to communicate haptically with others with greater clarity than low self-esteem subjects (37). In order to develop trust, the human young do need to experience others haptically. Haptics is an important part of early caring which establishes the child's capacity for trust.

Although the primary need of infants and children is for inclusive, positive, reassuring and trustful experiences with haptics, some researchers believe that the power of haptics in relationships is so strong that even haptics in the exclusive, negative sense is viewed by the child as better than no contact or withdrawal of relationship. Lovaas feels that the only way to control self-destructive behaviors in the autistic child is to "spank them, and spank them good" (6, p. 79). He believes that this type of physical contact with a child brings responsibility to the adult. He declares that "after you hit a child, you can't just get up and leave him, you are hooked to that kid" (6, p. 80).

In her dissertation, Barnett reviews the literature on the importance of experiencing life haptically in early childhood. She writes,

. . . touch continues to be the primary language of the developing child; he wants to touch everything. By touching objects of affection, the child gains his first emotional and sensuous knowledge of others. Likewise, the child establishes his body image by feeling and exploring his own body and thus communicates with himself through touch (2, p. 5).

Montagu (5) believes that most children have been "failed" and that teachers need to find ways to say "I care." Simon (38) believes that most adolescents suffer from "skin hunger," and he has used exercises in his high school classroom to increase the student's sensitivity to the power of haptics. In his book, Caring, Feeling, Touching he declares,

It [touching] results in people who are more open to the experience of life itself--people who feel secure enough to know how to ask for what they want and need and who are generous enough to give others what they need in return (39, p. 101).

Strong (42) believes that "good teachers are good touchers" and that schools must "educate the senses." In the growth away from the use of the immediate senses, many young adolescents and adults may suffer from emotional marasmus. Teachers and students are not excluded. Teachers who object to haptics being taught in the classroom feel that haptics may be used to manipulate students who are hungry to experience others haptically (38).

#### Haptics and Adults

Although a review of the literature indeed establishes the need of the young for experiencing other haptically, little research has been done with adults and their need to

communicate haptically. Mehrabian (25) identifies haptics as an immediate sense, linking it with promexics, chronemics, and kinesics. He tells the following story to illustrate the importance of immediacy messages. There is an encounter between an engaged couple and a woman the man had formerly dated frequently. As the man and woman exchange information about a mutual friend unknown to the fiancée, he reaches out and grasps his fiancée's hand. Mehrabian makes this observation

Even though he has turned his face and his direct attention from her, the clasping of her hand is reassurance that she is more important to him than the other woman and is preferred to her. One implication is that touching is a very important clue to liking, and even when it contradicts postures, positions, and words, it still determines the total impact of the message (26, pp. 45-46).

In reviewing the literature available, much of it done since 1970, the prevailing concensus seems to be that haptics is an immediate sense and that it is an important sense in adult communication (24). Mehrabian feels strongly that the non-verbal message is stronger than the verbal.

When any nonverbal behavior contradicts speech, it is more likely to determine the total impact of the message. In other words, touching positions (distance, forward lean, or eye contact), postures, gestures, as well as facial and vocal expressions, can all outweigh words and determine the feelings conveyed by a message (26, p. 45).

Research with the young firmly establishes the need of the young for bodily contact, to communicate haptically. Research with adults seems to indicate that adults need touch. How

much they need seems to be determined by several variables. Jourard, who did his research in the 1960's states,

. . . we know little about the conditions under which a person will permit another to touch him, the meanings people attach to touching and being touched, the loci of acceptable touch, and little of the consequences of body-contact (18, p. 137).

Research in the 1970's has added to the body of knowledge in the area of haptics, but in relation to what is known about proxemics or kinesics, two well mapped areas of nonverbal communication, relatively little research in haptics is available. Heslin and Boss (16) have summarized the available research in the introduction to the paper, "Nonverbal Boundary Behavior at the Airport." The research is divided into four types: questionnaire studies, laboratory experimentation, field experimentation, and observation in naturalistic settings. This order of presentation is followed in this review.

#### Questionnaire Studies

Early research by Jourard with body accessibility falls into this category. In 1966, he found that women are touched more than men, and, as previously stated, most touching comes from the best friend of the opposite sex (18). Rosenfeld, Kartus, and Ray (35) replicated Jourard's study a decade later. They confirmed and supported Jourard's findings. In fact, they found a dramatic increase in the percentage of touch received from opposite sex friends. The 1976 study reports



greater frequency of touch by males of the female torso with females touching of the male torso increasing but not as significantly.

In 1975, Nguyen and others (31) modified Jourard's sketch of the body areas to research the meaning of touch. This research indicates that there is agreement between the sexes as to whether or not a touch means sexual desire or friendship/warmth, but they do not agree on whether a touch indicated warmth/love. The area of most disagreement reported concerned the pleasantness of the touch. The disagreement is explained in this way,

. . . for men the extent to which a touch was rated as indicating sexual desire to the recipient was positively correlated with pleasantness (.76) and love/warmth (.60), but for women sexual desire was negatively correlated with pleasantness (-.74) and love/warmth (-.71) (16, p. 2).

When a subsequent investigation comparing married and unmarried women's reactions to sexual touching was conducted, the results indicated that the female's dislike of sexual touching was replaced with a strong positive response to it after marriage (30). However, compared to single males and married females, the married males attributed much less love or pleasantness to sexual touching. They instead placed it high on the status/assertativeness dimension (30). These results agree with observational studies by Henley (15) which view haptics as a status message and Goffman's observations concerning the "touch system" (12, p. 74).

In 1976, Leibowitz and Andersen (22) studied the concept of touch avoidance and its relationship with communication apprehension, self-disclosure, self-esteem, and a series of role variables. They used a self-reporting instrument and found that cultural role variables seem to have the greatest relation with touch avoidance.

#### Laboratory Experimentation

In 1973, Silverman and others (37) found a high correlation between self-esteem and touching behavior. The high self-esteemed people were more intimate in expressing love haptically; they communicated this feeling more clearly; and they found the whole experience easier than did low self-esteemed people.

In his dissertation study, "Openness to Touching: A Study of Strangers in Nonverbal Interaction," Walker (44) found that in this type of relationship experiencing others haptically was a "very threatening task." As the dyad progressed, subjects were rated as more open. Male-male dyads were judged as least open in the touching interaction; female-female dyads, the most open group. Walker's research indicates that openness to touching can be scored in an objective manner (44, p. 80). Using the FIRO-B scale of affection, Walker hypothesized that individuals who felt they needed to receive a lot of affection or felt they wanted to give others a lot of affection as measured on the affection

scale would be more open to touch. This hypothesis was supported by the results (44, p. 75).

Although Walker's study involved strangers, his results agree with the findings of Masters and Johnson (23) in their work with married couples who are experiencing sexual dysfunction. They stress that

. . . sensory awareness and its communication can be extremely difficult for those who have not had the opportunity to develop a sensate orientation gradually under circumstances in which the experience was valued and encouraged or at least not negated (23, p. 77).

Walker feels that the research by Masters and Johnson is another indicator that touching experiences for many people, even those who would be expected to be most comfortable with each other, are a very threatening, unpleasant experience" (23, 71). The raters in Walker's study felt it was a rare exception when two subjects interacted in an open, free manner. Walker surmizes,

The message gleaned from these results was that the taboos and restrictions on touching another person, particularly a stranger, are very powerful in our society and that these taboos were not overcome by the instructions which attempted to restructure the interaction so that it was an exciting and satisfying one instead of a frightening, anxiety-producing one (44, p. 65).

Walker states that the most important part of the focused activities used in nonverbal touching exercises may be the opportunity that the participants are given to discuss the feelings they were experiencing during the actual touching experience. He declares, ". . . possibly it is the sharing

of the discomfort and the discussion of the roots of the felt discomfort that results in any personal growth that does occur" (44, p. 69).

Alma I. Smith's dissertation study at Georgia, "Non-Verbal Communication through Touch," has been called "new and highly creative" (21, p. 149). She selected five emotions which she believed were most commonly communicated by touch: detached, mothering, fearful, playful, and angry. Separated by a screen from the subjects, a person trained as an experimenter attempted to communicate these five emotions solely by different hand movements. Smith developed a set of adjectives to describe each emotion known as Tactile Communication Index (21, p. 149). In this each subject was rated on his/her ability to both receive and send tactile messages. Smith hypothesized that meaning can be conveyed through touch in the absence of any other sensory cues. The results of her study supported the hypothesis that touch can function effectively as a separate communication system.

#### Field Experimentation

The effect of interpersonal touch has been investigated in the counseling setting, in hospitals, in a university library, and in the public-recreational setting. Pattison (16) found that clients who were touched were more self-explorative than those who were not. Barnett (2) found that patients who were touched were more receptive to following

medical orders than those who were not. In the library setting, it was found that the "mere-fraction-of-a-second" touch from a checkout clerk as he returned the identification card could induce a student to feel more positively toward the clerk and more positive in general than those who were not touched by the clerk (9).

Vidal Clay (7) conducted a field study of the normal tactile interpersonal behaviors of forty-five mother-child pairs in a public-recreational setting. She found no phase of high tactile contact between mothers and children. The mothers gave less tactile communication to their youngest children, more to their toddlers, and less to the older children (7). Even then the mothers seemed to use touch for "caring" for the children and controlling their behavior rather than for affection. Clay reports that most of the child-initiated contacts were of the affectionate attachment kind.

#### Observation in Naturalistic Settings

Goffman (12) observed that in a mental hospital the patients and staff observed a "touch system" or "pecking order" with the patients who were low in power/dominance, touching each other and staff orderlies, but seldom touching the physicians, who were high in power/dominance.

Ramsey (32) reports a structured "prison code" which includes haptics. She writes that a "slap on the buttocks,

acceptable on the playing field or in the gymnasium, may have a different meaning when it happens in the block and more so in the cell" (32, p. 40). In Ramsey's view, haptics is also included in the code of entering behavior. She declares that it is important for the new inmate to appear very masculine. This seems most true, she observes, in the visiting room. She reports,

During early visits the new inmate is hesitant to be touched, held, or caressed by his relatives, wife, or girlfriend and parents. A very tough, brusque manner is maintained for other inmates or guards who might be observing (32, p. 42).

Henley (15) believes that a "pecking order" code is present in male-female relationships with the female, low in power/dominance in the relationship, receiving touch from the male who is high in power/dominance. This would agree with Heslin's findings for married men who rate haptics high on the assertiveness scale.

Heslin (17) has proposed that a "crucial determinant" of the meaning ascribed to haptics as a form of communication is the relationship that exists between the sender and the receiver. He proposed that there are five basic relationships within which touching can occur and that each calls for an interpretation of touch related to that relationship.

These relationships may be seen in order of increasing amount of intimacy and intensity. The first is the Functional/Professional relationship. The receiver of the communication is experienced haptically by the sender in order that the

sender may "do something" to the receiver. Examples of this relationship are given by Heslin as physician-patient, physical therapist-patient, etc. Heslin declares that "even though the participants may deny it, the relationship involved is virtually manipulator-to-object" (17). He notes that it is possible for someone to relate to another person haptically in this relationship with whom he would not relate in any other of the relationships, e.g., someone of much higher or lower status, or an enemy (17). According to Goffman and Henley, this would be the only viable way for a person of low status to initiate touch with a person of high status.

The second relationship is known as Social/Polite. Heslin proposes that touch is a status neutralizing act in this relationship, and that the Social/Polite touch "signals that the encounters are starting off on equal footing, if not friends, then at least not enemies" (17, p. 2). "Touching," he adds, ". . . is under heavy cultural constraints that prescribe how one should touch and that proscribe what is not allowed" (17, p. 2).

The third relationship, Friendship/Warmth, is less formalized than the Social/Polite touch, and Heslin feels that this opens up possibilities that this relationship will be misinterpreted as indicative of love and/or sexual attraction. This is especially true in the case of same-sex Friendship/Warmth touching. Walker's study reported that in

the male-male dyad was the most uncomfortable with touch.

Heslin writes,

The differences in approach to handling Friendship/Warmth touching from culture to culture reflects the differences among the cultures in handling the potential of illicit or unsanctioned sexuality. For some cultures, the fear of such sexuality (homosexuality, heterosexuality that is not official) is so great that people are willing to forego the warmth and support of touch for an exaggerated importance of privacy (17, p. 2).

Communication that includes haptics needs to be appropriate to the relationship in order not to create a disturbance. This is particularly true in the fourth relationship, Love/Intimacy. Heslin realizes that it is sometimes difficult to classify and categorize communication which includes haptics in the Love/Intimacy relationship and the fifth relationship or level of intensity, Sexual Arousal. He acknowledges the fact that for some people touch that means sexual arousal also conveys love; for others, the two concepts are quite distinct. As in the case of the Nguyen study (1974), the more some people consider touch to convey sexual desire, the less they consider it to convey Love/Warmth (30). In a study of male-female encounters, Williams found that "good was defined as warmth without sex" (45, p. 334).

It may be true that as a relationship becomes more intimate, persons are seen less as objects or nonpersons and more as persons or individuals. However, Heslin posits an alternative or second model that indicates that "the most



appreciation of the other as an individual occurs in the Friendship/Warmth relationship" (17, p. 4).

In the conclusion to his paper "Steps Toward a Taxonomy of Touching" Heslin writes,

The freedom a person has to scratch, to disagree, to be sloppy, to show a ruthless side of himself, is greater with a friend than with a lover, partly because of the high personal involvement a person has in the success of a love relationship, and partly in the need to structure the other to meet one's own needs in a love relationship. And even though there are friendship relationships in which a partner has little freedom to be himself, but must play out a continually recurring role to the other person, and there are love relationships in which the partners are free to be themselves, as they really are, to their partners, the second model says that these kinds of relationships are the exception, not the rule (17, p. 4).

In summary, a review of the relevant literature clearly reveals the importance of haptics in the study of human interaction. Haptics is basic communication and essential to the young. They die without it or survive without basic trust. Although the importance of haptics in adult interpersonal communication seems apparent, the literature has not yet fully examined the variables involving relational communication and haptics.

#### A Philosophical Rationale

One of the purposes of this study is to develop a philosophical rationale for the need to teach haptics in the basic speech course. As Fisher stated, "Choices of orientation are inevitably made and they should be philosophic

rather than purely pragmatic decisions" (10, p. 210). This study proposes to teach haptics in the basic speech course in the belief that increasing skills in communicating haptically will help students humanize their relationships with others. This decision is a philosophic one. Of the four major philosophies, pragmatism, realism, idealism, and existentialism, the nature of man as viewed by the existential philosophers seems the most appropriate choice.

Existentialism as a philosophy recognizes that loneliness and alienation are part of the human condition, and some existentialists believed there was "no exit" from hopelessness. However, Marcel (19) believed that "hope is perhaps the very stuff for which the human soul is made." He also believed that relationships with other human beings should be based on love and communication. Some existentialists have defined love as the unity of two freedoms. Montagu believes that love is "communication of profound involvement in the welfare of the other" (5, p. 21). One of the goals of the basic course is to help students increase communication competencies by becoming more open, more flexible, and better able to develop their capacity to love. Genuine love as defined by the existentialists is tough. It takes toughmindedness to love another person unconditionally. An existentialist must choose to love, to care, to listen. Loving requires conscious choice.

If the philosophy underlying teaching haptics in the basic speech course is to enlarge the student's capacity to love and thus humanize relationships, the teacher/student relationship in the classroom should be humanizing (4). It should be the I-Thou relationship as proposed by Martin Buber. This relationship falls within Heslin's taxonomy between Friendship/Warmth and Love/Intimacy. It would be this relationship that the teacher would try to establish with each student in the classroom. In the Buber model for teaching, each situation is immediate and each day is born anew. In writing of the Buber mode for teaching, Scudder declares,

In spite of all similarities every living situation has, like a new born child, a new face, that has never been before and will never come again. It demands of you a reaction which cannot be prepared beforehand. It demands presence, responsibility: it demands you (36, p. 199).

Spurgeon English states that love and touch are inseparable, and Montagu believes that one learns to love by being loved. It should follow then, that the capacity for love and commitment can be developed through instruction in haptics in a humanistic classroom in which the I-Thou relationship is the model. Humanistic education is holistic education aimed at positive personal growth in the I-Thou relationship. Stewart and D'Angelo (41) declare that "education should be as holistic as possible, which means that both cognitive and experiential learning are valid and that teachers and learners can legitimately trust each other" (41, p. 1).

The Buber model for teaching demands presence, responsibility, and authenticity from both the teacher and student. As E. E. Cummings writes, "to be nobody--but--yourself in a world which is doing its best, night and day, to make you everybody else--means to fight the hardest battle which any human being can fight, and never stop fighting" (40, p. 57).

Learning in a classroom in which the teacher subscribes to an existential educational philosophy would be liberal. Kircher describes it in this way:

It is the faith of liberal learning in which the teacher knows more but learns with his students in a distinctive sense. For one thing he does not finally know. . . . It is the students' sense of this fact, when it is a fact that set them at one with their teacher in ultimate wonderment. It is this fact that sets them free (19, p. 50).

The purpose of teaching haptics in the basic speech course would be to set students free to experience others haptically in appropriate encounters. The teacher would not "finally know" what is the best communicative style for each student. The student makes this decision for himself. Only he can "be" himself or experience what he is "becoming." The position of this paper is that it is the task of the teacher to be with him in this experience and to learn with the student. Kenneth Boulding defines teaching as "cooperating with the student's own inward teacher whereby the student's image may grow in conformity with that of his outward teacher" (40, p. 42). The problem of communications is listed as one

of the five existential themes. Existentialism as a philosophy accepts man as becoming, believing that "existence" on an individual level is more important than a universal "essence." If the first positive task of the existentialist is to recover real personal being--the vocation of the ego is to "be" rather than to "have." Sartre believed that the problems of life and morality belong to concrete human experience and that the vehicles for thought were drama, novels, and personal diaries. The existentialist is concerned with man's struggle to be--to become a being. Within the classroom, learning must be permitted to define itself, for evaluation and value judgment provide movement within the mind, and to conceive inherent relationships among facts is to conceptualize identity (13).

Existentialism as a philosophy believes that education should liberate (13) and allow us to "be," but we cannot fully be ourselves unless we have basic trust which is dependent on love and adequate haptics (3, 8). Therefore, love has a place in the classroom in which the prime relational value is I-Thou and the philosophical base is existential. Prescott writes,

It was not until I had analyzed the nature of love that I realized that love has a place in the classroom and that genuine love is neither romantic nor instinctive. It is a valuing to the degree that one achieves empathy with the loved one and a willingness to make one's resources available to promote his self-realization (36, p. 204).

Hendin, a psychoanalyst at Columbia University, feels that the culture of the 1970's may produce persons who lack the capacity and tenacity for this kind of love. He writes in Change,

There are young people who do make a deep commitment to work they genuinely enjoy. Despite the difficulty virtually all have in caring for someone of the opposite sex, some are able to do so. But even those best able to be involved with work or another person are subject to what now amounts to a cultural pressure to experience all, to exploit others, and to evaluate what they do, think, and feel according to a standard of quantifiable, solitary gratification. In a culture that institutionalizes lack of commitment, it is very hard to be committed; in a nation that seems determined to strip sex of romance and tenderness, it is very hard to be a tender and faithful lover. We subject even young people who are most apt for life to an extraordinary pressure to be less than they are by idealizing the forces which are pulling them apart (14, p. 29).

Thus, instead of the unity of two freedoms, our culture reflects a depersonalization which is inauthentic.

In existentialist philosophy, authenticity in a person demands both the ability to choose with conscious deliberateness and the capacity for commitment. The ability to choose styles of communicating haptically and the capacity for commitment should both be emphasized in a basic course. Our students need to include haptics in their communicative repertoires. Because a person's need for physical contact is physiological as well as affective, this need must be gratified if persons are to achieve wholeness (8, 41). Until basic trust is established through caring, persons cannot be authentic. The basic speech course may include instruction

in haptics as an integral part of teaching intrapersonal and interpersonal communication in order to humanize students to care for each other. This is the philosophical rationale for teaching haptics in the basic speech course.

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## CHAPTER III

### METHODS AND PROCEDURES

#### Introduction

The purposes of this study were (a) to develop a philosophical rationale for the need to teach haptics in the basic speech course, (b) to develop instructional methods and strategies as a means of teaching haptics, (c) to assess the success of the means in terms of behavioral change, and (d) to examine the relationship between variables important in experiencing others haptically in an experimental design.

The emphasis of this chapter is directed toward a description of the methods and procedures used in this study. The presentation includes a description of the subjects, a description of the lesson plans and syllabi used for the instructional means, and an explanation of the procedures for collection and treatment of the data.

#### Description of the Subjects

The experimental and control group subjects for this study were sixty-four students enrolled in a basic speech course at the University of Alabama in Huntsville during the academic year, 1976-1977.

The group consisted of thirty-one males and thirty-three females. The age range was from eighteen to fifty-nine

years of age. Thirty-two subjects were in the age range from eighteen to twenty-two years of age; thirteen subjects were from twenty-three to twenty-eight years of age, six subjects were from twenty-nine to thirty-four years of age, five subjects were from thirty-five to forty-three years of age, and eight subjects were from forty-four to fifty-nine years of age. Seventy per cent of the subjects were in the age range from eighteen to twenty-eight years of age.

A total of thirty-two subjects comprised the control group with fourteen females and eighteen males. Seventeen subjects were in the age range of eighteen to twenty-two years of age; five subjects were from twenty-three to twenty-eight years of age; four subjects were from twenty-nine to thirty-two years of age; three subjects were from thirty-five to forty-three years of age; and five subjects were from forty-four to fifty-nine years of age. Subjects were students enrolled in two sections of the basic speech course during the Fall term, 1976-1977. Eight students enrolled in the course were not used as subjects due to absences during the administration of the pre-test and post-test.

A total of thirty-two subjects comprised the experimental group with nineteen females and thirteen males. Fifteen subjects were in the age range of eighteen to twenty-two years of age; eight subjects were from twenty-three to twenty-eight years of age; two subjects were from twenty-nine to thirty-four years of age; two subjects were from thirty-five to

forty-three years of age; and five subjects were from forty-four to fifty-nine years of age. Subjects were students enrolled in two sections of the basic speech course during the Spring term, 1977. Eleven students enrolled in the course were not used as subjects due to absences during the administration of the pre-test and post-test. In addition, students who missed more than two hours of the ten-hour treatment were not used as subjects in this study.

#### Description of Procedure and Design

A combination of the nonequivalent Pretest-Posttest Control Group Design and the Posttest-Only Control Group Design as described by Campbell and Stanley (4) was utilized with the exant intact comparison groups. With this design the control group and the experimental group did not have pre-experimental sampling equivalence but constituted "naturally assembled collectives" and were as similar as availability permitted (4, p. 49). The treatment was randomly assigned to two of the four groups so that "self-selection" for the experimental group was not a factor (4, p. 50).

Instruments were administered in the regular classroom. A group testing session was used for both the experimental and control groups. The Pretest-Posttest Control Group Design involved the administration of two attitude scales. These scales are the Fundamental Interpersonal Orientation-Behavior Scale (FIRO-B) and the Semantic Differential with the

FIRO-B administered first. The Posttest-Only Control Group Design will be with two additional instruments, the Touch Awareness Inventory (see Appendix C) and the Cognitive Mapping Instrument (see Appendix C). These two designs will be combined because the latter design has better control for interaction of testing and treatment; this control was needed due to the nature of the Touch Awareness Inventory and the Cognitive Mapping Instrument.

The pre-test was given the fifth week of the eleven-week term to both groups. It was followed in the sixth week by the treatment for the experimental group only. The post-test involving all four instruments was administered in the seventh week. For the pre-test the tests were administered in the following order: (a) FIRO-B and (b) Knapp Semantic Differential for Touch. This order was repeated in the post-test session and followed by the Cognitive Mapping Instrument and the Touch Awareness Inventory. The first three instruments were completed by the subjects in the classroom; the TAI involves a four-day field study.

#### Description of the Instruments

(a) The FIRO-B scales by Schultz (5) measure a person's characteristic behavior toward people in the areas of inclusion, control, and affection. Satisfactory scores are available for content, concurrent, construct, and predictive validity. One scale was designed to measure wanted behavior

(I want people to get close and personal with me), and the other was designed to measure expressed behavior (I act close and personal toward people). Both scales are designed to measure how a person acts in an interpersonal situation. The internal consistency of these scales is very high with a reproductibility coefficient of .94 for each scale; test-retest reliabilities (one month separation) are .76 (25). An inclusion, affection, and even control can be expressed haptically; a reduction in discrepancy scores between wanted and expressed behavior as measured on the three scales would indicate a significant improvement in interpersonal communication skills. (See Appendix C.)

(b) The Semantic Differential for Touch was designed by Mark Knapp (14) who is a Professor of Communication at Purdue University, and is based on work by Osgood (19, 28). This model consists of eleven polar scales. The intensity of the rating was indicated by the position of the subject's mark on a seven (+3, -3) point scale where 0 is the neutral position. This semantic differential was pre-tested and the results are available in Appendix A. (See Appendix C for instrument.)

(c) The Touch Awareness Inventory was designed for this study. It is a receiver-oriented self-report instrument. It requires each subject to keep a record for four days of the number of interpersonal encounters in which he received touch as part of the communication. A touch communication encounter is thus defined as a communicative transaction involving



"hello" and "goodbye," with touch as part of the transaction. This measure was pre-tested and results are available in Appendix A.

(d) The Cognitive Mapping Instrument is based on work by J. E. Hill and is used by Richard and Linda Huen (11), who are professors at Northeast Missouri State University, in their basic speech communication course. The instrument identifies twenty-seven learning-related skills organized in three areas of a person's learning skills: his encoding of symbols, the implications of cultural determinants of his preference for learning environments, and the thought processes he utilizes after decoding meanings. This instrument was given post-test only to both the experimental and control group. Reliability of the instrument has been established at .865 for the subscale involving learning by tactile communication and validity for this subscale is .748 (11). This is a paper-and-pencil instrument which is computer scored and results in a print-out of the subject's learning styles (areas of maximum strength, minimum strength, and negligible strengths). A difference in the scores between the experimental and the control group was considered an indication of the success of the treatment.

#### Description of the Treatment

One of the purposes of this study was to develop instructional methods and strategies as a means of teaching haptics.

A curriculum unit on haptics was designed for this study. This curriculum unit was presented as the treatment to the experimental group enrolled in two sections of the basic speech course (N = 32). One section met for seventy-five minutes on Monday, Wednesday, and Friday from 9:25 A.M. to 10:40 A.M. The other section met for two hours on Tuesday and Thursday from 6:00 P.M. to 8:00 P.M. Both of the classes were taught by the same instructor. Throughout the duration of the term, comparable class sections were held for each group. Small and large group discussion was used and, thus, the groups did not receive the same "word for word" information. However, an intentional effort was made to be sure that all experimental group subjects received the same content and participated in the same activities. The objectives for the unit and the plans for the presentation of the unit are contained in Table I. Table I documents the plans for the section that met for seventy-five minutes, three days a week. The plans for the section that met for two hours two times a week are found in Appendix D. The curriculum unit was reviewed by experts in the field (see Appendix E).

The experimental group course consisted of the regular activities of a basic speech course utilizing the multiple approach as well as the experimental materials. Activities included lecture-discussion on communication theory, listening skills, self-concept and its relationship to interpersonal relations, researching, organizing and presenting informative

TABLE I

THE OBJECTIVES, STUDENT ASSIGNMENTS, AND CLASSROOM  
ACTIVITIES DESIGNED FOR THE INSTRUCTOR'S USE  
IN TEACHING HAPTICS IN A BASIC SPEECH COURSE

Cognitive Learning Objectives

1. To develop the skill of critical listening by preparing for each class meeting by: (a) reading the chapter assignments. (b) choosing to attend each class as a responsible receiver of interpersonal and public communication.
2. To develop skills in responsible structure of time by meeting scheduled deadlines on written materials.
3. To develop skills in memory by describing in a three paragraph paper the current research in haptics as reported in the classroom.
4. To acquire skills in analysis of conceptual relationships by analyzing in writing on the mid-term examination, the relationship of haptics to the following factors: trust, self-disclosure, historical self, present self, self-esteem, age, and sex.
5. To develop skills in analysis and synthesis by explaining in writing on the mid-term examination how to begin to change behavior if an individual chooses to increase interpersonal competency in haptics.
6. To develop the skill of purposeful, rhetorical communication by consciously incorporating nonverbal communication into communication planning.
7. To develop skills in evaluation by analyzing in a three page paper personal abilities to maximize nonverbal communication as a natural process of information exchange.
8. To develop skills in analysis, synthesis, and evaluation by describing the strengths and weaknesses of the unit on haptics in terms of humanistic or holist education.

TABLE I--Continued

Affective Learning Objectives

1. To value increased competency in haptics by accepting the premise that haptics as inclusive, stroking behavior is humanizing.
2. To value increased competency in haptics by accepting the premise that haptics as exclusive, discounting behavior is dehumanizing.
3. To value increased competency in haptics by realizing the importance of the relationship between trust, commitment, self-disclosure, and haptics.
4. To value increased competency in haptics by accepting the ethical responsibility inherent in all communicative encounters that involve haptics.
5. To value increased competency in haptics by enhancing personal capacity for intimacy.
6. To value increased competency in haptics by liberating the capacity to love in other persons.

Curriculum Unit on Haptics

Texts: Brooks, Speech Communication  
James and Jongeward, Born to Win  
Hasling, The Audience, The Message, The Speaker  
Time and Place: Unit is presented in five meetings (75 minute periods) in the sixth week of an eleven-week term.  
Previous Reading Assignments: Chapters 1-4, Brooks; Chapters 1 and 2, James and Jongeward.

TABLE I--Continued

1st Day

Student Preparation

1. Chapter 6, Brooks (2),  
Speech Communication
2. Chapter 3, James and  
Jongeward (12), Born  
to Win

Learning Objectives and Activities

Primary Objective: Cognitive.

Secondary Objective: Affective.

1. The instructor will shake hands with each student as he/she enters the room (5 minutes)
2. A lecture-discussion (includes black-and-white slide presentation accompanied by voice tape (22) on current research) is used to introduce the unit on nonverbal communication with emphasis on haptics. (25 minutes)  
The script for this presentation is found in Appendix G.
3. The lecture-discussion is followed by a small group discussion on analysis and synthesis of the information presented and its relevance to communication competency. An exercise designed by Eisenberg and Smith (6), Open Net/Closed Net will be used. About five minutes to hold the discussions, the discussants will be asked to hold hands during the remainder of the discussion. (The instructor should monitor the groups.) After 5-8 minutes in the closed net, discussants will release hands and talk about the ways in which the closed net affected their feelings about the group and the content of the discussion. (20 minutes)
4. Using the fishbowl technique (inner and outer circle), each group will have a spokesperson in the inner circle to relate the feelings of his/her group. The outer circle will then respond to the report. (10 minutes).  
This exercise is optional if time is a factor.
5. Summary: The instructor will summarize the report on affective learnings generated by the exercise and relate these learnings to the cognitive learnings reported in the slide-audio presentation. (10 minutes)

TABLE I--Continued

Student Preparation

1. Write two or three pages summarizing research on haptics introduced on the first day to turn in to instructor and to share with dyad partner.
2. Exercise 1 on p. 64-65 in Born to Win. Discuss this with your dyad partner before turning it in to your instructor.
3. Field study: keep an accurate record of types of encounters for 24 hours: dyad/small group/public/media. Turn in at next meeting.
4. Read handouts on cognitive and affective learning.

Learning Objectives and Activities

6. The instructor will shake hands with each student as he/she departs. (5 minutes)

2nd Day

Primary Objective: Cognitive .

Secondary Objective: Affective .

1. Dyad discussions of cognitive learnings will help to provide continuity between class meetings and relate work done outside of class to the classroom. (20 minutes)
2. This will be followed by dyad discussions of the exercise on "You and Touch" assigned in Born to Win. (Students will be encouraged to self-disclose only the information they consciously choose to share. 15 minutes)
3. Each dyad will merge with one other to form a small group and discuss about sharing the information. (10 minutes)
4. Each group will elect a spokesperson to present in the public mode the feelings of the group: ok/not ok. (TA concept). (15 minutes)
5. A summary session should be held to relate findings in current research and affective learnings of students in dyad and small group situations. The significance of haptics in healthy relationships should be emphasized. (15 minutes)

TABLE I--Continued

3rd Day

Student Preparation

1. Register (4), "In Touch with Feeling," Human Behavior, July, 1975.
2. Young, Michael, "The Human Touch: Who Needs It?" Bridges Not Walls (27).
3. Lair (16), "Touching People," I Ain't Much Baby--But I'm All I've Got.
4. Field study report due.
5. Roach (23) "If We Touch" a script from Readers Theatre. Prepare to read orally in your group the part you have been assigned.

Learning Objectives and Activities

- Primary Objective: Cognitive.  
Secondary Objective: Affective.
1. A class discussion of communication outside the classroom (readings and field study) will relate cognitive and affective learnings. (15 minutes)
  2. A guest artist will present a lecture-discussion on communicating via tactile art. (60 minutes)

4th Day

1. Chapter 8, Gunther (7), "Touch" Sense Relaxation.
2. Chapter 5, Hooper (10), "Nonverbal Communication Systems," Human Message System.

- Primary Objective: Affective.  
Secondary Objective: Cognitive.
1. Each small group will read orally the Readers Theatre Script, "If We Touch" followed by a discussion of feelings. (20 minutes)
  2. Play audio tape of the script recorded by students in oral interpretation. Ask students to listen to

TABLE I--Continued

<u>Student Preparation</u>	<u>Learning Objectives and Activities</u>
<p>3. Read assigned script in class.</p> <p>4. Write a three page paper, to be turned in to instructor, concerning your personal learnings (cognitive and affective) involving your ability to maximize nonverbal communication as a natural process of information exchange.</p>	<p>the tape in any way that seems most relaxing. (If possible, lights should be dimmed.) Ask students to be open to feelings from the historical and present self. (In TA terms: listen to tapes from parent, adult, and child.) (15 minutes)</p> <p>3. Have students compare active involvement and listening experience with script. (10 minutes)</p> <p>4. Introduce the color slide presentation accompanied by a music tape (22) which will emphasize affective learning. (25 minutes)</p> <p>5. The instructor should shake hands with each student as he/she leaves. (5 minutes)</p>
<p>1. Lobsenz (17), "The Living Message in a Touch," <u>Communication Vibrations</u>.</p> <p>2. Chapter 5, Patton &amp; Patton (20), "Sexuality as a Communication Variable," <u>Living Together</u>.</p> <p>Optional Readings: Henley: "Power, Sex, and Nonverbal Communication," <u>Language and Sex</u>.</p>	<p style="text-align: center;"><u>5th Day</u></p> <p>Primary Objective: Affective.</p> <p>Secondary Objective: Cognitive.</p> <p>1. Small groups will meet to discuss feelings of ok/not ok during reading of script vs. listening to tape, the slide show presentation, and personal learnings in relationship to the handout on cognitive and affective objectives. (20 minutes)</p> <p>2. Using the fishbowl technique, each group will have a spokesperson in the inner circle to relate feelings of his/her group. The outer circle will then respond. (20 minutes)</p> <p>3. The small groups will participate in the "Getting Acquainted Exercise" by Brown (3), 1971. (20 minutes)</p> <p>4. End with dyad discussion of implications of the unit for increasing communication skills. Ask each</p>



TABLE I--Continued

<u>Student Preparation</u>	<u>Learning Objectives and Activities</u>
	<p>student to consider maximizing his/her nonverbal communication as a natural process of information exchange. Students who wish to change communicative behavior in order to more fully experience others haptically should be given a handout entitled "Where Does One Begin?" (10 minutes)</p> <p>5. The instructor should shake hands with each student as he/she leaves. (5 minutes)</p>

Sources: References used for the discussion and media presentations are listed in the bibliography. Those not specifically noted elsewhere are Barker (1), DeVito (5), Heslin (9), Janet (13), Knapp (15), Nguyen (18), Sathre (24), Stevens (26), and Walker (29).

and persuasive messages in the interpersonal and public mode, as well as reading, writing, and speaking activities and tests on the textbooks. The introductory handout given to students plus a comparison of the student's syllabi for both sections of the experimental group course with the student's syllabi for the control group course are included in Appendix F.

#### Procedures for Collecting the Data

The data for the control group were collected in the Fall term, 1976-1977, during the fifth and seventh week of an eleven-week term.

The FIRO-B was hand-scored and scores recorded for wanted and expressed behavior in the areas of inclusion, control, and affection. Both pre-test and post-test scores were obtained.

The Semantic Differential Touch was hand-scored with a value of +3 to -3 on a seven-place scale. Individual scores were recorded as well as a composite rating for each group. Both pre-test and post-test scores were obtained.

The Cognitive Mapping Instrument was machine-scored and the scores on the tactile and proximic subscales recorded. This instrument was administered post-test only.

The Touch Awareness Inventory was hand-scored for total number of encounters, type of encounter, setting of encounter, and mode of encounter. This instrument was administered post-test only.

The data for the experimental group were collected in the Spring term, 1977, during the fifth and seventh week of an eleven-week term. The procedures for collecting the data were the same as those used with the control group. In addition to information collected from scores on these four instruments, subjects responded in writing to the affective learning outcomes of the treatment and the TAI. This information was collected post-test only.

#### Procedures for Analysis of Data

Cognitive learning objectives were evaluated based on results of written papers as well as scores on the four instruments.

Affective learning objectives were evaluated based on the reflection papers written in response to affective exercises in the classroom as well as an increase in positive scores on the four instruments. Scores on all four instruments were coded on a format card, key punched, and computer analyzed.

#### Analysis of Data

Hypotheses 3, 4, 6, 7, and 10 were tested using analysis of variance. The t-test, a special case of the F-test (4), was used to test Hypotheses 1 and 2.

Hypotheses 8 and 9 were tested using correlation analysis. This analysis was performed on all variables to determine their relationship. Age, sex, frequency of

encounter by opposite sex, and frequency of encounter with the same sex were included. The mode was partitioned into inclusion/exclusion; setting, public/private within the correlational analysis.

Hypothesis 5 was tested using the Pearson-Product Moment correlation. A regression analysis was run on the variables involved in the Touch Awareness Inventory. This analysis involved Hypotheses 8 through 10.

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## CHAPTER IV

### RESULTS

#### Introduction

One of the purposes of this study was to examine the effects of a basic speech course which included a ten-hour curriculum unit on haptics. The theoretical rationale and need for this investigation were presented in Chapter I and in Chapter II. Chapter III contained the curriculum designed for this study and the description of the procedures for collecting and analyzing the data. The major thrust of Chapter IV is to present and analyze findings related to the purposes and hypotheses which were detailed in earlier chapters. The findings which are presented have been organized into two sections, Characteristics of the Subjects and Discussion of the Hypotheses.

#### Characteristics of the Subjects

A total of thirty-three subjects were used in the control group and thirty-three subjects in the experimental group. One subject in each group was dropped because of an abnormally high score on the total number of encounters on the Touch Awareness Inventory. This reduced the population to sixty-four subjects.



The experimental design treated age and sex as independent variables. The control group consisted of fourteen females and eighteen males; the experimental group consisted of nineteen females and thirteen males.

The control group was composed of two sections of the basic speech course; the experimental group was composed of two sections of the basic speech course for a total of four sections. In preparing the data for analysis, each subject was grouped by age into one of five groups. Group I (age eighteen to twenty-two) had fifteen subjects in the experimental group; seventeen in the control group. Group II (age twenty-three to twenty-eight) had eight subjects in the experimental group; five in the control. Group III (age twenty-nine to thirty-four) had two subjects in the experimental group; three in the control. Group V (age forty-four to fifty-nine) had five subjects in the experimental group; three in the control group. Of the sixty-four subjects in both groups, thirty-two were in the age range of Group I (eighteen to twenty-two). Thirteen subjects were in the age range of Group II, six in Group III, five in Group IV, and eight in Group V. The age range of the total population was eighteen to fifty-nine with forty-five subjects or 70 per cent within the age range of Group I and II (eighteen to twenty-eight).

## Discussion of the Hypotheses

Hypotheses 1 and 2 were tested using the t-test for independent samples as the statistical technique. The data generated from the Fundamental Interpersonal Relations Orientation-Behavior Scale (FIRO-B) and the Semantic Differential are presented in two tables.

Hypotheses 3, 4, 6, 7, and 10 were tested using one-way analysis of variance. Data generated by the Touch Awareness Inventory (TAI) are presented in five tables.

Hypotheses 8 and 9 were tested using correlation analysis and the analysis is shown in tabular form.

The results of a regression analysis on all variables on the TAI are presented in tabular form. Analysis of the ten hypotheses are reported in nine tables.

The data analyses are discussed in chronological order of the hypotheses.

### Hypothesis 1

The treatment will result in decreased discrepancy scores between students' self-reports of wanted and expressed behavior as measured by the FIRO-B.

The t-test for independent samples was used with this hypothesis for both the control and experimental groups. The results can be seen in Table II. The observed t-value of 1.12 of the experimental group was not significant at the .05 level of significance although it was higher than the t-value of .63 obtained for the control group. As the

treatment did not yield a statistically significant decrease in discrepancy scores, the null hypothesis cannot be rejected. Hypothesis 1 as stated cannot be accepted.

TABLE II

SUMMARY OF PRE-TEST, POST-TEST MEANS, STANDARD DEVIATIONS AND  $t$  SCORES FOR EXPERIMENTAL AND CONTROL GROUPS ON THE FIRO-B

Group	N	Pre-test Means	SD*	Post-test Means	SD*	t	p
Experimental	32	.3448	4.745	-.7586	5.159	1.12	NS
Control	32	-.7742	5.277	-1.3226	4.956	.63	NS

\*Standard Deviation.

### Hypothesis 2

The treatment will result in an increase in the mean positive attitude toward haptics as measured by the Semantic Differential for Touch.

The  $t$ -test for independent samples was used with this hypothesis for both the experimental and control groups. The results are seen in Table III. The observed  $t$ -value of 1.12 for the experimental group was not significant at the .05 level. The null hypothesis cannot be rejected. Hypothesis 2 as stated cannot be accepted.

TABLE III

SUMMARY OF PRE-TEST, POST-TEST MEANS, STANDARD DEVIATIONS AND  $t$  SCORES FOR EXPERIMENTAL AND CONTROL GROUPS ON THE SEMANTIC DIFFERENTIAL

Group	N	Pre-test Means	SD*	Post-test Means	SD*	t	p
Experimental	32	2.3509	2.631	1.8391	.604	1.12	NS
Control	32	2.0731	2.197	1.7284	1.650	1.27	NS

\*Standard Deviation.

### Hypothesis 3

The treatment will result in an increase in the quantity of touch communication received as measured by the Touch Awareness Inventory. An analysis of variance was used to test this hypothesis. Both an  $F$ -value and a  $t$ -value were obtained. The  $t$ -test is considered a particular case of the  $F$ -test when only two samples are involved. For the purposes of this study, the  $t$ -value was chosen for analysis.

The  $t$ -value of .6527 was below the expected  $t$ -value of 1.761. The population mean was 18.13. The mean for the control group was 16.94; for the experimental group, 19.31, as presented in Table IV. Therefore, the mean for the experimental group is higher than the population mean as well as the control group. Statistically, however, this difference is not significant. Hypothesis 3 cannot be accepted.

TABLE IV

SUMMARY OF MEANS, STANDARD DEVIATION, AND ANALYSIS OF VARIANCE FOR TOTAL ENCOUNTERS ON THE TAI (N=64)

VARIABLE	GROUP	CODE	VALUE	LAEFL	SUM	MEAN	STD DEV	SUM OF SQ	N
	1.		CONTROL	542.0000	16.93750	11.92162	4405.875	( 32)	
	2.		EXPERIMENTAL	615.0000	19.31250	16.77832	8726.875	( 32)	
			TOTAL	1165.0000	18.125000	14.487543	13132.750	( 64)	

S U M O F S Q U A R E S		D E G R E E S O F F R E E D O M		M E A N S Q U A R E	
BETWEEN GROUPS	90.2500000	( 1)	90.2500000		
WITHIN GROUPS	13132.7500	( 62)	211.818548		
TOTAL	13223.0000	( 63)			

F =	.4261	T =	.6527
-----	-------	-----	-------

# OF GROUPS IS LESS THAN 3, THEREFORE RELATIONSHIP IS LINEAR

#### Hypothesis 4

The treatment will result in a significant increase in the percentile score for tactile communication as measured by the Cognitive Mapping Instrument.

Both the F-value and a t-value were obtained as in analysis of Hypothesis 3. The observed t-value of .4899 was below the expected t-value of 1.671 as seen in Table V. The mean percentile value for the control group was 7.55; for the experimental group, 7.72. As the treatment did not result in significant change in percentile scores, the null hypothesis cannot be rejected. Hypothesis 4 cannot be accepted.

#### Hypothesis 5

There will be a significant relationship between attitude toward touch and the quantity of touch communication encounters received as measured by the Touch Awareness Inventory.

The Pearson-Product Moment Correlation was used to test Hypothesis 5. The correlation found was below the level of significance. The observed coefficient of correlation was  $-.0311$ . As the correlation coefficient between the two statistics cannot be regarded as close to 1, the null hypothesis cannot be rejected. Hypothesis 5 cannot be accepted.

TABLE V  
 SUMMARY OF THE MEANS, STANDARD DEVIATIONS, AND  
 ANALYSIS OF VARIANCE FOR THE TACTILE SUBSCALE  
 OF THE CMI (N=64)

VARIABLE	GROUP	CODE	VALUE LABEL	SUM	MEAN	STD DEV	SUM OF SQ	N
	1.		CONTROL	234.0000	7.548367	1.670164	83.67744	31
	2.		EXPERIMENTAL	247.0000	7.718750	1.023415	32.46875	32
			TOTAL	481.00000	7.6349206	1.3713850	116.14619	63

SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
BETWEEN GROUPS .457015991	( 1)	.457015991
WITHIN GROUPS 116.146194	( 61)	1.90403597
TOTAL 116.603210	( 62)	
F = .2400	T = .4899	

# OF GROUPS IS LESS THAN 3, THEREFORE RELATIONSHIP IS LINEAR

### Hypothesis 6

Adult females from eighteen to fifty-nine years of age will receive more touch than do adult males of the same age as measured by the Touch Awareness Inventory.

An analysis of variance was done to test the significance of Hypothesis 6. Scores for thirty-one males and thirty-three females were analyzed. No comparison between the two groups was made. The observed  $t$ -value of 1.4430 is shown in Table VI. This value is below the expected value of 1.671 at the .05 level of significance. The observed value of 1.4430 is significant at the .10 level.

The population mean was 18.13. Female subjects received a mean of 20.64; male subjects received 15.45. Thus, the mean number of touch communication encounters for females was greater than the population mean as well as for male subjects. The difference is not significant at the .05 level. Thus, Hypothesis 6 cannot be accepted.

### Hypothesis 7

There will be no significant relationship between age and quantity of touch received as measured by the Touch Awareness Inventory.

An analysis of variance was used to test Hypothesis 7. This hypothesis is stated in null form. Age was not expected to make a difference in the quantity of touch received. An observed  $F$ -value of 2.09 is seen in Table VII. ETA is a



TABLE VI  
 SUMMARY OF MEANS, STANDARD DEVIATION, AND ANALYSIS OF  
 VARIANCE FOR FEMALE AND MALE ENCOUNTERS ON THE  
 TAI (N=64)

VARIABLE	CODE	VALUE LABEL	SUM	MEAN	STD DEV	SUM OF SQ	N
SEX	1.	MALE	479.0000	15.45161	12.63286	4787.677	( 31)
SEX	2.	FEMALE	681.0000	20.63636	15.81696	8005.636	( 33)
		TOTAL	1160.0000	18.125000	14.487543	12793.314	( 64)

* * * * * A N O V A T A B L E * * * * *			
	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
BETWEEN GROUPS	429.686035	( 1)	429.686035
WITHIN GROUPS	12793.3140	( 62)	206.343773
TOTAL	13223.0000	( 63)	
F =	2.0824	T =	1.4430

# OF GROUPS IS LESS THAN 3, THEREFORE RELATIONSHIP IS LINPAP

TABLE VII

SUMMARY OF MEANS, STANDARD DEVIATIONS, AND ANALYSIS OF VARIANCE FOR AGE AND TOTAL TOUCH COMMUNICATION ENCOUNTERS ON THE TAI (N=64)

VARIABLE	CODE	VALUE LABEL	SUM	MEAN	STD DEV	SUM OF SQ	N
AGE	1.	17-22	433.0000	13.53125	12.25267	4653.969	32)
AGE	2.	23-26	337.0000	25.92308	18.67462	4184.923	13)
AGE	3.	27-34	119.0000	19.83333	13.95365	974.8333	6)
AGE	4.	35-43	118.0000	23.50000	11.55893	489.2000	5)
AGE	5.	44-59	153.0000	19.12500	13.51652	1278.875	9)
TOTAL			1150.0000	19.125000	14.437543	11581.800	64)

	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE
BETWEEN GROUPS	1641.19495	( 4)	410.299988
WITHIN GROUPS	11581.8000	( 59)	196.301695
TOTAL	13223.0000	( 63)	

F =	2.0401	ETA SQRD =	.1241
-----	--------	------------	-------

measure of relationship between variables which is often used when the variable can have only one of two values. This hypothesis involves the analysis of age as divided into five age ranges. No comparison between groups was made.

The observed value of  $F$  is below the expected value, 2.53. The null hypothesis cannot be rejected. Hypothesis 7 as stated is accepted. There is no statistically significant relationship between age and the quantity of touch received as measured by the Touch Awareness Inventory.

#### Hypotheses 8 and 9

Hypotheses 8 and 9 are discussed as a pair as they both involve variables of the Touch Awareness Inventory.

There will be a significant relationship between the quantity of touch communication encountered and the mode of touch as measured by the Touch Awareness Inventory.

There will be a significant relationship between the quantity of touch communication encountered and the setting as measured by the Touch Awareness Inventory.

Both hypotheses were tested by correlation analysis. Because of the nature of the data, there is no true independent variable. The coefficient of correlation for inclusion with total number of touch communication encounters is .9814, as shown in Table VIII. The observed coefficient of correlation for exclusion and total number of touch communication encounters is .4312. This supports Hypothesis 8. No comparison between groups was made.

TABLE VIII

CORRELATION ANALYSIS OF SCORES ON THE FIR0-B, THE SEMANTIC  
DIFFERENTIAL, AND THE TACTILE SUBSCALE OF THE CMI  
AND INDEPENDENT AND DEPENDENT VARIABLES ON THE  
TAI

GROUP	AGE	SEX	SDPOST	SDPRE	OPSEX	SMSEX	PUBSLT	PRISST	INCL	EXCL	TOTAL
1.00000	.03565	.24196	.04400	-.10617	.16513	-.10670	-.14140	.22800	.08114	.03626	.07986
.03565	1.00000	-.14171	-.00134	.08392	.12421	.15579	.20466	.06292	.16059	.00422	.15381
.24196	-.14171	1.00000	.24414	.19171	.21158	-.03457	-.01640	.20461	.19055	.02481	.18118
.04400	-.00134	.24414	1.00000	.86937	-.02513	-.03372	-.03416	-.02696	-.01753	-.13266	-.03706
-.10617	.08392	.19171	.86937	1.00000	.07771	-.07771	.02637	-.08287	.01516	-.24126	-.02266
.16513	.12421	.21158	-.02513	-.08923	1.00000	.23300	.58016	.81601	.88718	.37231	.89257
-.10670	.15579	-.03457	-.03372	.07771	.23300	1.00000	.65186	.47984	.61850	.26701	.62743
-.14140	.20466	-.01640	-.03416	.02837	.58016	.65186	1.00000	.38760	.72067	.30116	.72827
.22800	.06292	.20461	-.02696	-.08287	.81601	.47984	.38760	1.00000	.84509	.45725	.66638
.08114	.16059	.19055	-.01753	.01316	.88718	.61850	.72067	.84509	1.00000	.29632	.98914
.03626	.00422	.02481	-.13266	-.24126	.37231	.26701	.30116	.45725	.29632	1.00000	.43212
.07986	.15381	.18118	-.03706	-.22666	.89257	.62743	.72827	.86638	.98914	.43212	1.00000
.11197	.10039	.10535	.18543	.14104	.20359	-.17062	-.07184	.14529	.11110	-.11340	.08923
.06354	.14240	.10385	.28664	.29381	.15821	-.07451	.04123	.00144	.14165	-.30178	.08908
.07426	-.00677	-.17343	.09186	.15748	-.24221	.14210	.02398	-.15845	-.14262	-.04997	-.13892
.03133	.15568	-.26991	.02777	.07117	-.14830	.27451	.20384	-.14005	.01993	-.14054	.00058

GROUP	QP	DESPRE	DESPST
.11197	.06354	.07426	.03133
.10039	.14240	-.00677	.15568
.10535	.10585	-.17343	-.26991
.18543	.28664	.09186	.02777
.14104	.29381	.15748	.07117
.20359	.15821	-.24221	-.14830
-.17062	-.07451	.14210	.27451
-.07184	.04123	.02398	.20384
.14529	.00144	-.15845	-.14005
.11110	.14185	-.14262	.01993
-.14340	-.30178	-.04997	-.14054
.08923	.08908	-.13892	.00058
1.00000	.37704	.14451	.20802
.37704	1.00000	-.00346	.15045

The coefficient of correlation of public setting to total number of touch communication encounters is .72827; the coefficient of correlation with private setting is .86638 as seen in Table VIII. The difference is not statistically significant, and the data do not support Hypothesis 9. The correlation of public setting to the total number of touch communication encounters is only slightly lower than the correlation of private setting with total number of touch communication encounters. As one correlation is not significantly higher than the other, the null hypothesis cannot be rejected on the basis of correlation analysis.

As seen in Table VIII, when mode and setting are correlated, the coefficient of correlation of public setting with inclusion is .72067; with exclusion, .30116. The coefficient of correlation of private setting with inclusion is .84509; with exclusion, .45725. Thus, the variables, mode and setting, have a relationship between themselves as they do with the criterion to be predicted.

The results of the correlation analysis found in Table VIII do support Hypothesis 8 but not Hypothesis 9.

A regression analysis was done to predict which of these variables correlates most highly with the criterion. The data, as seen in Table IX, support Hypothesis 8 and the correlation analysis. The variable possessing the greater part of the prediction for the criterion of total touch

TABLE IX

SUMMARY OF REGRESSION ANALYSIS ON VARIABLES OF THE TAI WITH  
 TOTAL NUMBER OF TOUCH COMMUNICATION ENCOUNTERS AS THE  
 DEPENDENT VARIABLE

\*\*\*\*\*  
 DEPENDENT VARIABLE.. TOTAL TOTAL CONTACTS  
 VARIABLE(S) ENTERED ON STEP NUMBER 6.. PRISET PRIVATE SETTING  
 \*\*\*\*\*  
 MULTIPLE R .99960  
 R SQUARE .99961  
 ADJUSTED R SQUARE .99956  
 STANDARD ERROR .31544

\*\*\*\*\*  
 ANALYSIS OF VARIANCE  
 REGRESSION 6. MEAN SQUARE 2144.49042 F 21551.82455  
 RESIDUAL 51. 5.07470  
 SUM OF SQUARES 12866.94254  
 VARIABLE LIST 1  
 REGRESSION LIST 1

----- VARIABLES IN THE EQUATION -----  
 ----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR	B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE
INCL	1.00999	.95079	.02274	.02274	1972.951				
EXCL	.95995	.15321	.02678	.02678	1285.103				
OPSEX	-.01404	-.01132	.02762	.02762	.258				
PUBSET	.00775	.00463	.01337	.01337	.336				
SMSEX	-.00570	-.00266	.02898	.02898	.039				
PRISET	.00225	.00154	.01453	.01453	.024				
(CONSTANT)	-.02941								

MAXIMUM STEP REACHED

communication encounters is inclusion. The observed F-value is significant at the .05 level. It is also significant at the .01 level. The observed F-value in the regression for exclusion is also significant at the .05 level. This value supports the predictability of mode in determining the total number of touch communication encounters. The null hypothesis can be rejected. Hypothesis 8 is accepted. There is a significant relationship between quantity of touch communication encountered and the mode of touch as measured by the Touch Awareness Inventory.

Analysis of the data on setting and its relationship to the total number of touch communication encounters is more difficult. Correlation analysis resulted in a coefficient of correlation for private setting with total number of touch communication encounters of .86638. The coefficient of correlation of public setting with total number of touch communication encounters is .72877. This would not support the results of the regression analysis as seen in Table IX. The correlation analysis fails to support the data obtained and presented in Table IX. The regression analysis presented in Table IX predicts that the variable, public setting, possesses a greater part of the prediction of the criterion than does the variable, private setting. However, the observed F-value in the regression analysis is not significant for public setting. The null hypothesis cannot be rejected. Hypothesis 9 is not accepted.

### Hypothesis 10

There will be a significant relationship between the sex of the receiver and the sex of the sender as measured by the Touch Awareness Inventory.

The regression analysis shown in Table IX predicts that opposite sex as a variable possesses a greater part of the prediction of the criterion than does same sex as a variable. However, the observed F-value in the regression analysis is not significant for opposite sex. There is no support for Hypothesis 10 in the data obtained by regression analysis.

In the correlation analysis seen in Table VIII, opposite sex as a type of touch communication encounter, has a coefficient of correlation of .81601 with private setting, a coefficient of correlation of .88718 with inclusion, and a coefficient of correlation of .89257 with the total number of touch communication encounters. However, the coefficient of correlation with sex is a low .21158. Same sex as a type of touch communication encounter has a negative coefficient of correlation of -.03457 with sex the coefficient of correlation with same sex and public setting is .65186; private setting, .47984; inclusion, .61850; total, .62743.

The total number of touch communication encounters experienced by the sixty-four subjects in the population of the study was 1,160. Of the 1,160, 542 were received by the control group; 618 by the experimental group. Of the 1,160 total touch communication encounters, 774 were experienced



with persons of the sex opposite that of the receiver; 386 from persons of the same sex. Thus, 66 per cent were encounters with the opposite sex; 33 per cent with the same sex. Table X reports results of an analysis of variance performed on the data. Although the observed  $t$ -value is not significant at the .05 level of significance, it is significant at the .10 level of significance. The observed  $t$ -value is 1.5835. The expected  $t$ -value at .05 is 1.671; the expected  $t$ -value at .10 is 1.296. Thus, results of regression analysis and analysis of variance fail to support Hypothesis 10 at the .05 level of significance. Correlation analysis supports the relationship at .89257 and analysis of variance supports the hypothesis of a significant relationship at .10. However, since this is less than the chosen significance level for this population and data, the null hypothesis cannot be rejected. Hypothesis 10, which states that there is a significant relationship between sex of the receiver and the sex of the sender as measured by the Touch Awareness Inventory, cannot be accepted.

#### Summary

Hypotheses 7 and 8 were accepted at the .05 level of significance. Hypothesis 7 states that there is no significant relationship between age and the quantity of touch communication encounters as measured on the Touch Awareness Inventory.

TABLE X

SUMMARY OF MEANS, STANDARD DEVIATIONS, AND ANALYSIS OF VARIANCE FOR SEX OF THE SENDER AND SEX OF THE RECEIVER ON THE TAI (N=64)

VARIABLE	CODE	VALUE LABEL	SUM	MEAN	STD DEV	SUM OF SQ	N
SEX	1.	MALE	290.0000	9.66667	9.491678	2612.667	( 30)
SEX	2.	FEMALE	472.0000	14.30303	17.23463	5604.970	( 33)
		TOTAL	762.0000	12.05239	11.746948	8217.6364	( 63)

ANOVA TABLE			
SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	
BETWEEN GROUPS	( 1)	337.792358	
WITHIN GROUPS	( 61)	134.715349	
TOTAL	( 62)		
F = 2.5075	T = 1.5835		

# OF GROUPS IS LESS THAN 3, THEREFORE RELATIONSHIP IS LINEAR

Hypothesis 8 states that there will be a significant relationship between the quantity of touch communication encountered and the mode of touch as measured by the Touch Awareness Inventory.

Hypotheses 6 and 10 were accepted at the .10 level of significance only. They were not accepted at the .05 level of significance. Hypothesis 6 states that adult females will receive more touch than adult males as measured by the Touch Awareness Inventory, and Hypothesis 10 states that there is a relationship between sex of the receiver and sex of the sender.

Hypotheses 1, 2, 3, 4, 5, and 9 were not accepted at the .05 level of significance.

## CHAPTER V

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The nature of the basic speech course has changed in the last decade. Ten years ago, more than half of the courses labeled basic speech emphasized the public mode of communication in a message-centered, speaker-oriented curriculum. In 1977, it is believed that fully 50 per cent of the courses called basic speech include some aspect of the intrapersonal-interpersonal modes and emphasize message-centered, receiver-oriented communication. It is believed that at least one-third of the courses use the multiple approach which combines intrapersonal, interpersonal, and public communication modes.

In 1977, few textbooks written for the basic course do not contain a chapter on nonverbal communication. Haptics, the rhetorical name for touch communication, is the least frequently taught mode of nonverbal communication. This study was based on the contention that haptics should be taught in the basic speech course. The rationale for teaching haptics in the basic speech course was based on existential philosophy and the theory of confluent education

which emphasizes the interaction between cognitive and affective learning.

The overall goal of this study was to create and test the effect of instructional materials designed to teach haptics in the basic speech course. The instructional materials designed for this study on haptics emphasized both sending and receiving skills and included both printed and media materials. The print materials included the instructor's lesson plans, the development of cognitive and affective learning objectives, and a reader's theatre script. The media materials included a black-and-white slide presentation with a voice script and a color slide presentation with a music tape. These materials, in addition to reading, writing, and speaking assignments plus dyadic and small group activities, were presented as a curriculum unit which took ten hours within an eleven-week course. This curriculum unit was the treatment within the experimental design.

The study further entailed testing and analyzing the effect of the treatment itself on the cognitive and affective behaviors of the students in the basic speech course. Ten hypotheses were formulated and analyzed statistically. Non-statistical findings include student oral and written reaction to the curriculum unit and personal observations of the instructor.

The following hypotheses were formulated for the conduct of this study:

1. The treatment will result in decreased discrepancy scores between students' self-reports of wanted and expressed behavior as measured by the Fundamental Interpersonal Relations Orientation-Scale (FIRO-B).
2. The treatment will result in an increase in the mean positive attitudes toward haptics as measured by the Semantic Differential for Touch (SD).
3. The treatment will result in an increase in the quantity of touch communication received as measured by the Touch Awareness Inventory (TAI).
4. The treatment will result in a significant increase in the percentile score for tactile communication as measured by the Cognitive Mapping Instrument (CMI).
5. There will be a significant relationship between attitude toward touch and the quantity of touch encounters received as measured by the TAI.
6. Adult females will receive significantly more touch than do adult males of the same age as measured by the TAI.
7. There will be no significant relationship between age and quantity of touch received as measured by the TAI.
8. There will be a significant relationship between the quantity of touch communication encountered and the mode of touch as measured by the TAI.
9. There will be a significant relationship between the quantity of touch communication encountered and the setting as measured by the TAI.

10. There will be a significant relationship between the sex of the receiver and the sex of the sender as measured by the TAI.

A variation of Stanley and Campbell's nonequivalent control group design was used to test the ten hypotheses. This design consisted of a pre-test, a treatment, and a post-test for the experimental group for Hypotheses 1 and 2 and a post-test only design with Hypotheses 3 through 10. It consisted of a pre-test and a post-test for the control group for Hypotheses 1 and 2 and a post-test only design for Hypotheses 3 through 10.

The study consisted of four sections of Basic Speech Communication, an introductory speech course. Two sections were selected as the experimental group (N=32) and two sections (N=32) as the control group. All sections were taught by the same instructor and included in this study.

The data for this study were generated from pre-test and post-test administrations of the Semantic Differential for Touch and the FIRO-B and the post-test administration of the Cognitive Mapping Instrument and the Touch Awareness Inventory.

The Semantic Differential for Touch was developed by Mark Knapp in 1972. Students in this study were asked to respond to how they felt about receiving touch. The FIRO-B, which was developed by William Schutz in 1967, is a measure of

how people relate to each other, in terms of expressed and wanted inclusion, control, and affection.

The Touch Awareness Inventory was designed for this study. It is a receiver-oriented self-report instrument. It requires each subject to keep a record for four days of the number of interpersonal encounters in which touch was received as part of the communication.

The Cognitive Mapping Instrument is based on work by Joseph Hill and is used by Richard and Linda Huen at Northeast Missouri State University. This instrument identifies twenty-seven learning-related skills organized in three areas of a person's learning skills; his encoding of symbols, the implications of cultural determinants of his preference for learning environments, and the thought process he utilizes after decoding meanings.

Pre-test data were collected for both the control and the experimental group during the fourth week of an eleven-week term. Post-test data were collected for both groups during the sixth week of the eleven-week term. This data was collected during the academic year 1976-1977.

The curriculum unit on haptics was reviewed by a panel of twenty communication experts. Written and verbal feedback was obtained on the learning objectives, student preparation, and classroom activities. In addition, the media presentations were viewed by five of the panel listed in Appendix E as well as educators at three regional



conventions which were held during the academic year 1976-1977.

The control group course consisted of the regular activities for the basic speech course utilizing the multiple approach (intrapersonal and interpersonal and public mode). The major activities of the course consisted of lecture-discussions, dyadic and small group discussions, outlining workshops, informative and persuasive speaking assignments, and tests on textbook materials. The use of the curriculum unit on haptics in the experimental group constituted the major difference between the experimental group's course and the control group's course. All groups received comparable instruction within the prescribed limits.

Hypotheses 3, 4, 6, 7, and 10 were tested using analysis of variance. The  $t$ -test, a special case of the  $F$ -test, was used to test Hypotheses 1 and 2. Hypotheses 8 and 9 were tested using correlation analysis. Hypothesis 5 was tested using the Pearson-Product Moment correlation. A regression analysis was also run on Hypotheses 8 through 10. The minimum .05 level of significance was prescribed as necessary to reject the null hypotheses.

### Findings

The following findings were derived from an analysis of the statistical data presented in this study.

1. The treatment did not result in decreased discrepancy scores between students' self-reports of wanted and expressed behavior.
2. The treatment did not result in an increase in the mean positive attitudes toward haptics.
3. The treatment did not result in an increase in the quantity of touch communication received.
4. The treatment did not result in a significant increase in the percentile score for tactile communication.
5. There is not a significant relationship between attitude toward touch and the quantity of touch encounters received.
6. Adult females do not receive significantly more touch than do adult males.
7. There is no significant relationship between age and the quantity of touch received.
8. There is a significant relationship between the quantity of touch communication encountered and the mode of touch.
9. There is no significant relationship between the quantity of touch communication encountered and the setting of the encounter.
10. There is no significant relationship between the sex of the sender and the sex of the receiver in haptic communication.

### Conclusions

Based on the statistical analysis of the data, the following conclusions were formulated.

1. Scores on the FIRO-B cannot be used to confirm the desirability of teaching haptics in the basic speech course. These scores would indicate that a course which includes a unit on haptics is not any more successful in helping the under-expressive student than a course without such a unit.

2. Scores on the Semantic Differential would indicate that the treatment did not result in a more positive attitude toward receiving touch.

3. Scores on the Touch Awareness Inventory would indicate that the treatment did not result in an increase in the touch communication encounters received.

4. Scores on the Cognitive Mapping Instrument would indicate that the treatment did not result in an increase in individual ability to learn through tactile means.

5. The instruments used may not be adequate to measure the success of the treatment. All instruments report high standard deviations making it difficult to obtain statistically significant results.

6. The nature of the data obtained from the TAI would indicate difficulty in statistical analysis. Because the variables of mode, setting, and type are part of the total, it can be argued that correlation and regression analysis are improperly used in this study.

7. The statistical method chosen for the hypotheses dealing with the variables on the TAI analyzed the data obtained from both groups without dealing with differences between groups. Had another method been chosen, it can be argued that the results might have been more significant.

The following conclusions were formulated on the basis of personal observations and nonstatistical findings.

1. There were some indications that the unit on haptics may contribute to more accurate and realistic perceptions of behavior as reported on the post-tests of the FIRO-B and the Semantic Differential. These changes were not evidenced by significantly different scores on these two instruments.

2. Teaching haptics in the basic course may be valuable in helping students to develop rhetorical alternatives when communicating nonverbally. Student comments would indicate that the unit on haptics did raise questions about the importance of haptics in human communication.

3. Student comments would indicate that although the TAI measured only receiving skills, the experience of the field study resulted in increased awareness of sending and receiving skills as well as recognition of rhetorical alternatives within the transaction.

4. The students in the basic speech course with a curriculum unit on haptics may be expected to raise more questions about their own rhetorical sensitivity than students in the course without such a unit.

5. Student comments would indicate that the unit on haptics stimulates interest in the importance of nonverbal communication. The majority of students in the experimental group chose nonverbal communication as the topic they would most like to research. Haptics was chosen as the form of nonverbal communication that most interested them.

6. Student comments would indicate that the majority of the cognitive and affective learning objectives written for the curriculum unit were achieved.

#### Recommendations

Further research is needed to establish the desirability of teaching haptics in the basic speech course. If this unit is used in further research, it is recommended that the treatment be modified as follows: (a) more time given to group discussion of the relationship between trust, self-disclosure, and haptics, (b) more time spent discussing ways to deal with exclusive touch in order to reach the under-expressive student more effectively, (c) more time spent in discussing how uncomfortable students feel about haptics.

A second area of research would involve the instruments used to measure change in this study. It is recommended that these instruments be used within the curriculum unit for purposes of self-analysis rather than measurement. New instruments to measure change should be investigated.

A third area of research would involve using the TAI to describe sending messages haptically. This research could investigate differences in an individual's ability to send and receive messages haptically.

A fourth area of research would deal with Heslin's Taxonomy of Touch and alternative behaviors within each relationship. A descriptive study could detail the sending and receiving skills appropriate to each relationship and within this context suggest individual and cultural differences when experiencing others haptically.

A fifth area of research would deal with the TAI in case studies of individual relationships. The history of a relationship could be described in terms of the rhetorical alternatives chosen when experiencing the other person haptically. Family communication systems could be studied in this way.

A sixth area of research would limit the TAI to experiences with other adults and compare the mean with this study (this study included children as message senders). Future studies should also deal with non-college populations.

It is further recommended that research in haptics should include longitudinal studies to determine the effect of teaching haptics on the family communication system of which the student is a member.

If future research employs the experimental design of this study, it is recommended that (a) the time for the

curriculum unit used as treatment be extended (this might well be done in a nonverbal seminar or in a basic course that meets for more than eleven weeks), and (b) a new method of analysis for the variables on the TAI be chosen.

Finally, it is recommended that this unit be presented only by fully qualified teachers whose manner of instruction is consistent with the ethics and responsibilities documented by the Speech Communication Association. In order for students to overcome their initial apprehension about the topic, the teacher must be competent to facilitate an environment in which trust is legitimate. This study made no attempt to quantify the relationship between the teacher and the student.

Since the subject of this study, haptics, is basically subjective, it is hoped that the nonstatistical findings will be considered significant. If this is true, there is reasonable proof that haptics, the most basic of all forms of nonverbal communication, should be taught in the basic speech course.

So far, there seems to be no verified study to prove that nonverbal communication is essential to human beings. This study suggests that adequate haptics is necessary for the development of healthy human relationships, but the statistical findings do not support the desirability of teaching haptics in the basic speech course. Further study is needed to evaluate the importance of nonverbal

communication in human transactions and to establish the value of teaching haptics in the basic speech course.



## APPENDIX A

TABLE XI

NUMBER OF TOTAL TOUCH COMMUNICATION ENCOUNTERS  
WITH OPPOSITE SEX AND SAME SEX AS THE  
INDEPENDENT VARIABLE AS MEASURED ON  
THE TOUCH AWARENESS INVENTORY  
(N=25)

Group	Number of Encounters With Same Sex	Number of Encounters With Opposite Sex	Total Number of Encounters
Male	T = 131 $\bar{x} = 32.75$	T = 33 $\bar{x} = 8.25$	T = 164 $\bar{x} = 41$
Female	T = 492 $\bar{x} = 23.42$	T = 302 $\bar{x} = 14.38$	T = 794 $\bar{x} = 37.81$
Summary	T = 623 $\bar{x} = 24.92$	T = 325 $\bar{x} = 13.4$	T = 958 $\bar{x} = 38.32$

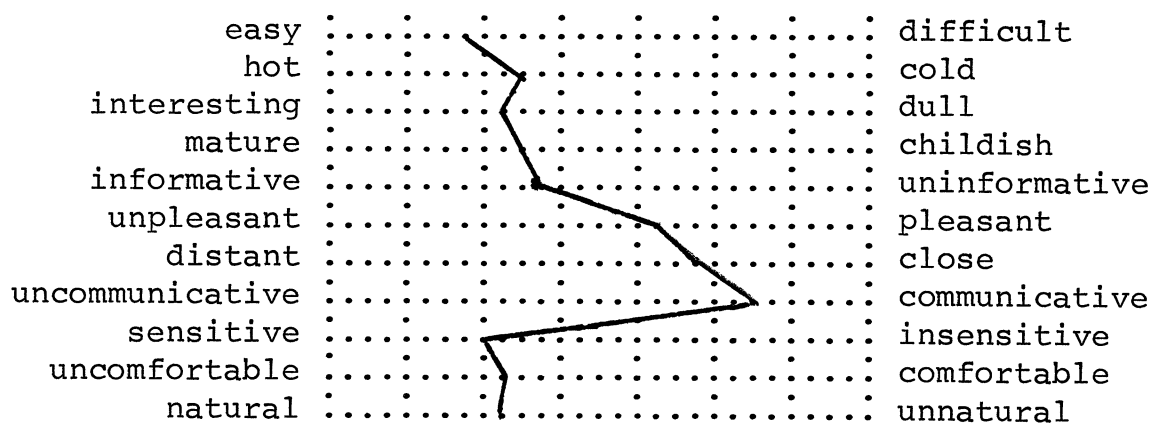


Fig. 1--Results of Ss Responses on a Semantic Differential on Touch with A Reported Mean of 1.98.

APPENDIX B

VERBAL AND NONVERBAL  
CODIFICATION  
DIFFERENCES\*

Nonverbal Communication	Verbal Communication
Nonverbal communication is based on continuous functions; the hand is continuously involved in movement.	Verbal communication is based on discontinuous functions; sound or letters have a discrete beginning and ending.
Nonverbal communication is regulated primarily by principles governed by biological necessity.	Verbal communication is governed primarily by arbitrary, man-made principles.
Nonverbal communication influences perception, coordination, and integration, and leads to the acquisition of skills.	Verbal communication influences thinking and leads to the acquisition of information.
Understanding of nonverbal detonation is based upon the participants' empathic assessment of biological similarity; no explanation is needed for understanding what pain is.	Understanding of verbal detonation is based on prior verbal agreement.
Nonverbal communication uses the old structures of the central and autonomic nervous systems.	Verbal communication uses younger brain structures, particularly the cortex.
Nonverbal communication is learned early in life.	Verbal communication is learned later in life.

Actions and objects exist  
in their own right.

Words do not exist in  
their own right. They  
represent arbitrary  
symbols representing  
abstractions of events.

Nonverbal communication is  
emotional to a great extent.

Verbal communication  
represents a distant  
language.

\*Source: Brooks, William D., "Nonverbal Communication,"  
Speech Communication, 2nd edition, Iowa, William C. Brown  
Publishers, 1974, p. 176.

APPENDIX C

FIRO-B  
1977 Edition  
WILL SCHUTZ, Ph.D.

DIRECTIONS: This questionnaire explores the typical ways you interact with people. There are no right or wrong answers.

Sometimes people are tempted to answer questions like these in terms of what they think a person should do. This is not what is wanted here. We would like to know how you actually behave.

Some items may seem similar to others. However, each item is different so please answer each one without regard to the others. There is no time limit, but do not debate long over any item.

NAME \_\_\_\_\_

GROUP \_\_\_\_\_

DATE \_\_\_\_\_ AGE \_\_\_\_\_

MALE \_\_\_\_\_ FEMALE \_\_\_\_\_

	I	C	A
e			
w			
sum			
d			

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For each statement, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

- |       | 1. never | 2. rarely   | 3. occasionally | 4. sometimes | 5. often  | 6. usually |
|-------|----------|---|-----------------|--------------|---|------------|
| _____ | 1.       | I try to be with people.  | _____           | 9.           | I try to include other people in my plans.                  |            |
| _____ | 2.       | I let other people decide what to do.                           | _____           | 10.          | I let other people control my actions.                      |            |
| _____ | 3.       | I join social groups.   | _____           | 11.          | I try to have people around me.                             |            |
| _____ | 4.       | I try to have close relationships with people.                  | _____           | 12.          | I try to get close and personal with people.                |            |
| _____ | 5.       | I tend to join social organizations when I have an opportunity. | _____           | 13.          | When people are doing things together, I tend to join them. |            |
| _____ | 6.       | I let other people strongly influence my actions.               | _____           | 14.          | I am easily led by people.                                  |            |
| _____ | 7.       | I try to be included in informal social activities.             | _____           | 15.          | I try to avoid being alone.                                 |            |
| _____ | 8.       | I try to have close, personal relationships with people.        | _____           | 16.          | I try to participate in group activities.                   |            |

For each of the next group of statements, choose one of the following answers:

- |    |        |   |                      |    |                 |    |                |    |                |    |                |
|----|--------|---|----------------------|----|-----------------|----|----------------|----|----------------|----|----------------|
| 1. | nobody | 2.  | one or two<br>people | 3. | a few<br>people | 4. | some<br>people | 5. | many<br>people | 6. | most<br>people |
| —  | 17.    | I try to be friendly to people.                             |                      |    |                 |    |                |    |                |    |                |
| —  | 18.    | I let other people decide what<br>to do.                    |                      |    |                 |    |                |    |                |    |                |
| —  | 19.    | My personal relations with<br>people are cool and distant.  |                      |    |                 |    |                |    |                |    |                |
| —  | 20.    | I let other people take charge<br>of things.                |                      |    |                 |    |                |    |                |    |                |
| —  | 21.    | I try to have close relation-<br>ships with people.         |                      |    |                 |    |                |    |                |    |                |
| —  | 22.    | I let other people strongly<br>influence my actions.        |                      |    |                 |    |                |    |                |    |                |
| —  | 23.    | I try to get close and personal<br>with people.             |                      |    |                 |    |                |    |                |    |                |
| —  | 24.    | I let other people control my<br>actions.                   |                      |    |                 |    |                |    |                |    |                |
| —  | 25.    | I act cool and distant with people.                         |                      |    |                 |    |                |    |                |    |                |
| —  | 26.    | I am easily led by people.                                  |                      |    |                 |    |                |    |                |    |                |
| —  | 27.    | I try to have close, personal<br>relationships with people. |                      |    |                 |    |                |    |                |    |                |

For each of the next group of statements, choose one of the following answers:

- |    |        |                      |                 |                |                |                |
|----|--------|----------------------|-----------------|----------------|----------------|----------------|
| 1. | nobody | 2. one or two people | 3. a few people | 4. some people | 5. many people | 6. most people |
|----|--------|----------------------|-----------------|----------------|----------------|----------------|
- 
- |   |     |   |   |     |  |
|---|-----|---|---|-----|--|
| — | 28. | I like people to invite me to things.                   | — | 35. | I like people to act cool and distant toward me.               |
| — | 29. | I like people to act close and personal with me.        | — | 36. | I try to have other people do things the way I want them done. |
| — | 30. | I try to influence strongly other people's actions.     | — | 37. | I like people to ask me to participate in their discussions.   |
| — | 31. | I like people to invite me to join in their activities. | — | 38. | I like people to act friendly toward me.                       |
| — | 32. | I like people to act close toward me.                   | — | 39. | I like people to invite me to participate in their activities. |
| — | 33. | I try to take charge of things when I am with people.   | — | 40. | I like people to act distant toward me.                        |
| — | 34. | I like people to include me in their activities.        |   |     |  |

For each of the next group of statements, choose one of the following answers:

- |   | 1. never | 2. rarely  | 3. occasionally | 4. sometimes | 5. often   | 6. usually |
|---|----------|--|-----------------|--------------|--|------------|
| — | 41.      | I try to be the dominant person when I am with people. | —               | 48.          | I like people to include me in their activities.               |            |
| — | 42.      | I like people to invite me to things.                  | —               | 49.          | I like people to act close and personal with me.               |            |
| — | 43.      | I like people to act close toward me.                  | —               | 50.          | I try to take charge of things when I'm with people.           |            |
| — | 44.      | I try to have other people do things I want done.      | —               | 51.          | I like people to invite me to participate in their activities. |            |
| — | 45.      | I like people to invite me to join their activities.   | —               | 52.          | I like people to act distant toward me.                        |            |
| — | 46.      | I like people to act cool and distant toward me.       | —               | 53.          | I try to have other people do things the way I want them done. |            |
| — | 47.      | I try to influence strongly other people's actions.    | —               | 54.          | I take charge of things when I'm with people.                  |            |

Semantic differential for touch as designed by Knapp.

easy	.....	difficult
hot	.....	cold
interesting	.....	dull
mature	.....	childish
informative	.....	uninformative
unpleasant	.....	pleasant
distant	.....	close
uncommunicative	.....	communicative
sensitive	.....	insensitive
uncomfortable	.....	comfortable
natural	.....	unnatural

COGNITIVE STYLE INSTRUMENT - ADULT FORMINSTRUCTIONS:

1. Read each sentence below.
2. Decide if the sentence accurately describes you "Rarely," "Sometimes," or "Usually."
3. Notice the number and letter to the left of the sentence. The number refers to the row number on the Tally Sheet.
4. Go to the row number which matches the sentence number.
5. Place the letter of the sentence in the row under the appropriate column-- (Rarely, Sometimes, Usually).
6. Please answer each statement. For some statements you may have to consider analogous situations so that they are most appropriate to you.
7. When you have completed the map, please check each row to see if you have responded to each of the eight sentences for the row. If you have, there will be eight letters across each row.

SAMPLE:

3C It is easier for me to explain things in writing than by talking about them.

2F I can remember a telephone number once I hear it.

## TALLY SHEET

Rarely

Sometimes

Usually

1.			
2.		F	
3.			C

In the lefthand sample above I read the statement, decided that it was true for me "Usually." I then went down to row '3' on the Tally Sheet and put the letter "C" under the "Usually" column. In the righthand sample, I read the statement, decided that it was true for me "Sometimes." I then went to row '2' on the Tally Sheet and put the letter 'F' in the "Sometimes" column.

- 2F I can remember a telephone number once I hear it.
- 23A I understand a topic better if I examine it to learn how it differs from other topics.
- 14F I can act hurt and depressed in order to acquire favors.
- 18A I can predict my prospects for success in most situations.
- 14C I can give the impression that I am happy and comfortable even though I am angry and uncomfortable.
- 27E I find it easier to win an argument when I state a premise (Blank is true) and give a conclusion to the premise which is inescapable: (Therefore, Blank must be true).
- 19E I am able to put people at ease in tense situations.
- 17F I feel comfortable when people call me by my first name.
- 18H I know my anxiety threshold.
- 15B I use facial expressions in showing emotion.
- 22F I have little need for others to help me make decisions.
- 19B In group discussions, I am the catalyst for reaching decisions.
- 22G My "best" decisions are made alone.
- 5C I can recognize who is on the phone by listening for a few moments.
- 10E When I drive a car, I look ahead and in other directions outside of the car.
- 17A I would wait to be introduced to a "big name" rather than introduce myself.
- 19D I can convince others to do the things that I would like them to do.
- 18C I set goals consistent with my needs and abilities.
- 19A People find it easy to get along with me.
- 18D I can tell whether or not I will be able to get my work done.
- 17G If I bump against another person in a store, I apologize.
- 24D Information should be analyzed in a number of ways before a conclusion is reached.
- 3B My written explanations are better than my spoken ones.
- 17C I know when to avoid physically touching someone else.
- 1H I prefer to be in lecture type situation when learning something.

- 2A I find it easy to add spoken or dictated numbers mentally.
- 16B I am well-coordinated.
- 18F I know what my physical responses will be to a particular task.
- 12C I enjoy concerts.
- 14E I can act "cultured" when the situation demands such formalized behavior.
- 13H I would stop for a STOP sign at 3:00 a.m., even if there were no other person in sight.
- 8C I use my fingers to determine the quality of the finish on wood.
- 6B I can distinguish fresh bread from stale bread by the smell.
- 6A I can tell "what's for dinner" by the smell.
- 5F I can tell the difference between two closely related sounds.
- 5E Walking with a spring in your step gives the impression that you are happy.
- 3C In my choice of clothing, I usually wear contrasting colors.
- 7A I can tell whether milk is sour by tasting it.
- 12A I enjoy the beauty of people dancing.
- 2C Oral mathematics tests are easy for me.
- 23G I choose music to fit my mood.
- 7C The taste of food is more important than its appearance.
- 1G People say I speak better than I write.
- 2H If I were buying a car, I would discuss the engine specifications with the salesman.
- 1F After I write a letter, I ask someone to read it to me so that I know that it sounds right.
- 1C I understand the daily news if I hear it on the radio.
- 13A The rules of our society should apply equally to all.
- 13E I do not permit personal affairs to interfere with completing an assignment.
- 16A I can repair objects with small parts without watching my hands.
- 25B I have no sympathy for people who break the law.
- 1B I do well on a test if it is about information I heard in a lecture.



- 8D I prefer furniture that "feels" good when I run my hand over the upholstery.
- 1D I prefer to communicate with friends and colleagues by telephone rather than writing notes to them.
- 2G When shopping, I can keep a running total in my head.
- 15H Eye movements are important supplements to my conversation.
- 10D I can write legibly while another person dictates to me.
- 8F I decide that my hair needs washing by the way it feels.
- 22H When given a job to do, I prefer to work on it myself.
- 11E I am able to offer criticism without offending.
- 11A My friends tell me that I am understanding.
- 11D I avoid saying things which hurt the feelings of others.
- 26D When looking at something constructed by someone else (e.g., a painting, a building, a piece of furniture) I like to figure out why the person created it as he did.
- 3F I prefer to read a paper myself rather than have someone read it aloud to me.
- 7H My "suffering" in the dentist's chair is alleviated if he does not use unpleasant tasting materials in my mouth.
- 3G I prefer to read directions rather than have someone read them to me.
- 12B I require beauty in my surroundings.
- 11B I understand the emotions of others.
- 11F When someone is frightened, I can be patient and calm rather than get angry with them.
- 14D I am able to "play a role" if I agree to.
- 17B I prefer to ask favors of close friends and associates rather than from work supervisors.
- 22B Religion is a purely personal thing.
- 22D When given a problem to solve, I can come to the best solution by myself.
- 5G Random sounds interfere with my ability to concentrate.
- 9B I choose clothes for the way they look.
- 4C I keep good written records in my check book.
- 3D I score high on achievement tests which emphasize reading comprehension.
- 10A I can run and catch a ball that has been struck or thrown.

22A	I make my own political choices.	21H	I make it a point not to let my work interfere with family plans.
20D	I like to share ideas with friends and associates.	14H	I can act attentive and interested even though bored when listening to another person.
22C	I would rather do things my way even if they don't conform to the expectations of my family or friends.	13B	I live according to moral values.
22E	I regard my personal goals as most important.	11C	I understand how a person feels when being punished.
20E	Before taking a new job, I discuss it with my friends.	13G	The quality of my work does not vary when the supervisor is away.
19H	Sales people find the merchandise that I'm asking for.	1E	I prefer verbal directions.
15D	I "talk with my hands".	4G	When I go shopping, I read the prices of my purchases and add them in my head.
12D	I enjoy listening to good music for the quality of its sound.	9C	I enjoy art exhibits.
11G	I can tolerate the inability to concentrate which characterizes those who are newly "in love".	20C	When shopping for clothes, I like to have a friend along to help me make choices.
14A	I can imitate someone else before a group.	9H	I feel better acquainted with someone after seeing pictures of him rather than reading about him.
24A	I often have to make a decision before I know enough about the situation.	15G	I interpret a person's mood by the way he sits or poses.
21D	I talk with my family before doing anything that might affect them.	3C	I do well in classes which rely heavily on textbooks.
21A	Before voting in an election, I review choices with my family.	15C	I shrug my shoulders when saying "I don't know".
		17D	Unless spoken to first, I do not speak to a supervisor.

- 26E I have no difficulty in understanding how to get puzzles together.
- 25E In play as well as work and life in general, I find it essential to "play by the rules".
- 21E I find it important to consult my family in planning vacations.
- 18B I can anticipate accurately how well I will do in a new situation.
- 5E I am able to tell which groups of instruments are playing at various times during a concert.
- 23H Characteristics for successful people are not the same as those for unsuccessful people.
- 2D I remember a telephone number once I have heard it.
- 17H I pat strangers on the back if I have an occasion to congratulate them.
- 12F I enjoy the beauty of the stars.
- 2B I quote statistics to others in order to prove my point in an argument.
- 4A I solve written mathematical problems rapidly.
- 16G I enjoy acquiring good motor skills so that I can compete successfully in sports.
- 12G Poetry is beautiful because of its concepts as well as its words and structure.
- 18E I know my capabilities.
- 4B I score high on written mathematics tests.
- 10F When I tune a musical instrument, I use the piano or another instrument for the correct pitch.
- 10H I am considered to be a "good" amateur athlete.
- 4F I find it easy to understand written numerical specifications.
- 20B I enjoy activity more when friends participate in it with me.
- 27C I find the reasoning patterns required in statistics rewarding to use.
- 6G Paint smell in a room is disturbing to me.
- 27G I understand geometric theorems.
- 25F When shopping for clothes, if I find the article I had in mind at a fair price, I buy it without further comparison.
- 23E I "play the devil's advocate" with people to force them to look at other points of view.
- 14B I am a good actor.

- 10B My partners tell me I am a good dancer.
- 5A I can tell if something is wrong with an engine by listening to it.
- 13D I would give up an immediate goal rather than sacrifice a principle.
- 14C I can shout and act tough in order to frighten others when I am frightened myself.
- 16H I have practiced handwriting skills until I write legibly.
- 21C I enjoy outdoor activities more if my family is with me.
- 21G I consult with my immediate family before making important decisions.
- 21F I understand events better after discussing them with my family.
- 20F I make personal decisions after discussing them with my friends.
- 21B The family that prays together stays together.
- 19C I am able to persuade people in disagreement to strive for agreement.
- 19F Peers involve me in resolving problems.
- 7G I enjoy trying new foods in order to find new tastes that are pleasing to me.
- 9A I prefer to read articles which are accompanied by pictures or drawings.
- 7E I return to a restaurant because the food there tasted good.
- 5B The tone or inflection of a speaker's voice gives additional meaning to what he says.
- 8B I can get dressed in the dark.
- 24C I understand how people cannot appreciate a problem until they know as much about it as possible.
- 16C Learning to swing a bat or golf club the right way is important.
- 24B When I attack a problem, I approach it from as many angles as possible.
- 5H I tune the radio by sound, not by looking at the dial.
- 8A I can feel the difference between wool worsted and double knit.
- 6E I believe that the customary smell of a store influences its sales volume.
- 10C When I type, I keep my eyes on the copy.
- 19G At parties, I am verbally able to stop arguments involving others before they go too far.
- 15A I blush.
- 25C Life is simplified if you go by the rules.

- 25A I work best in a structured situation.
- 27H I avoid probability statements in solving problems.
- 5D I can identify musical notes well enough to recognize a "tune" the next time I hear it.
- 25D I prefer working in situations where standards and rules are stated explicitly.
- 8E I pick up and feel vegetables and fruits in the store before buying them.
- 20G I value my friends' political opinions.
- 27F Knowledge flows logically from given premises.
- 16D I enjoy practicing dance steps until I can do them perfectly.
- 3H I understand more easily by reading than by hearing.
- 15F When I shake hands with someone, the handshake tells me something about them.
- 24F A person can never know enough about life.
- 26F I try to understand why people break rules.
- 26G There's always a reason for a person's behavior.
- 26B I like to figure out how parts of a whole fit together.
- 11H I laugh with the person who laughs when he stubs his toe because I know it hurts.
- 7F In selecting a beverage, my choice is based on taste appeal.
- 26C I tend to see all parts of the world as being interconnected.
- 27D I find the type of reasoning demanded by mathematics suits my style of thinking.
- 16E To become a good typist, I would practice correct finger movements.
- 9F I "think" in pictures and graphic models instead of words and phrases.
- 9G When I tune a radio, I pay close attention to the numbers on the dial.
- 7B When cooking, I use various spices until the dish tastes "right".
- 26H Problem-solving involves related variables.
- 18G I can program myself to handle boring tasks.
- 2E It is easy for me to remember the numbers and formulas I hear during a conversation.
- 4E I use a written budget in order to manage money for which I am responsible.

- 26A I would find it interesting to discover how people behave by evaluating things which make people tick (e.g., physiological, sociological, and psychological).
- 27A I enjoy games or puzzles in which the solution is deduced from information contained in the rules.
- 23F Holidays are different from other days of the year.
- 24H There are as many facets to a problem as there are on a well cut diamond.
- 20A I learn a subject better when I can discuss it with my peers.
- 13F I believe that a promise should be kept.
- 17E I know how far I can go without being reprimanded.
- 3A After I dictate a letter, I have to read it to be certain it is correct.
- 16F When I play golf or other sports, I take several practice swings before I start to play.
- 6C I can distinguish between several varieties of flowers by smelling them.
- 4D When I am in a group of people trying to solve a written problem involving numbers, I am among the first to reach the solution.
- 27B I find reasoning like this statement helps me to clarify my thoughts: "All men are mortal; Socrates is a man; Socrates is mortal".
- 24G The more I know about a problem, the more I want to know about it.
- 13C I would give up monetary gain to avoid a compromise of principles.
- 12H Utility and efficiency are important but they should not be emphasized to the exclusion of beauty.
- 23D In evaluating the performance of others, I find it helpful to determine how this performance differed from another performance.
- 6F The "smell" is an important part of the pleasure connected with a new car.
- 8H I prefer to write with a pen that "feels" good to my fingers.
- 8G I can distinguish a nickel from a dime in my pocket without looking at it.
- 7D Blindfolded, I can taste the difference between chicken and beef.
- 6D The aromas in a room determine for me whether it is pleasant or unpleasant.
- 12E I would go out of my way to see beautiful scenery.

- 25G I don't find sufficient reason to change my mind on a subject once I identify the rule which applies.
- 23B I use jokes or humorous remarks to change the focus in different situations.
- 6H When there are gas fumes in the car or the house, I notice them.
- 25H In evaluating the performance of others, I find it important to determine the standards which were set for them.
- 3E I have no difficulty in following a map.
- 9D I understand a lecturer better if I can see him while he talks.
- 20H I would join a particular religious group because my friends belong to it.
- 1A I can make more sense out of what a person means when he speaks to me rather than when he writes to me.
- 24E I take longer than others in coming to a conclusion because I want to know more about a issue than they do.
- 10G I can pitch horseshoes or lawn darts quite well.
- 9E A story is easier to understand in a movie than in a book.

## AWARENESS INVENTORY FOR TOUCH

All information will be dealt with ethically by a professional researcher. Please identify yourself only by your Social Security Number.

Your Social Security Number \_\_\_\_\_

Please identify yourself by circling the appropriate answer:

1. Sex M F

2. Age

You are to keep a record of interpersonal encounters in which you receive touch as a part of the transaction. Keep this record for four days.

	<u>Type</u>
SUMMARY	Encounters with opposite sex friend _____
REPORT:	Encounters with same sex friend _____
	Total encounters _____

	<u>Setting</u>
	Encounters in public setting _____
	Encounters in private setting _____

	<u>Mode</u>
	Encounters in which the mode of touch was inclusion _____
	Encounters in which the mode of touch was exclusion _____

Please do not tell your friends what you are doing and do not include anyone in this classroom in your inventory.



### Awareness Inventory for Touch

Touch is primal communication and says more about the relationship between people than the content of the communication. You are to keep a record of communicative encounters in which you are the RECEIVER of touch-communication. Terms used in record keeping as defined below.

TOUCH-COMMUNICATION ENCOUNTER - A communicative encounter (hello to goodbye) which involves touch as a part of the transaction.

MODE - Inclusion or Exclusion ... Inclusion is defined as touch that communicates care, affection, liking; Exclusion is defined as touch that communicates dislike, disinterest, discounting.

SETTING - Public or Private ...

SENDER - Opposite sex or same sex ...

### Touch Awareness Inventory

Day # \_\_\_\_\_

MODE		SETTING		SENDER	
Inclusion	Exclusion	Public	Private	Opposite Sex	Same Sex

APPENDIX D

CURRICULUM UNIT ON HAPTICS

BASIC SPEECH COMMUNICATION: 3 Semester Hours

Multiple Approach (Intrapersonal, interpersonal, and public modes)  
 Texts: Brooks, Speech Communication

James and Jongeward, Born to Win  
 Hasling, The Audience, The Message, The Speaker

Time and Place: Unit is presented in three meetings (2 hour periods with 10 minute break) in the sixth week of an eleven week term.

Previous Reading Assignments: Chapter 1-4, Brooks; Chapters 1 & 2, James and Jongeward

Daily  
 Learning  
 Objectives

Student  
 Preparation

Activity

- 1st day 1. Chapter 6, Brooks,  
Speech Communication  
 2. Chapter 3, James and  
Jongeward, Born to  
Win

Introduction to Haptics

1. The instructor will shake hands with each student as he/she enters the room. (5 minutes)
2. A lecture-discussion (includes black and white slide presentation accompanied by voice tape on current research) is used to introduce the unit on nonverbal communication with emphasis on haptics. (25 minutes)
3. The lecture-discussion is followed by a small group discussion on analysis and synthesis of the information presented and its relevance to communication competency. An exercise designed by Eisenberg and Smith, Open Net/Closed Net will be used. About five minutes into the discussions, the

COGNITIVE  
 Affective

Student  
Preparation

Activity

discussants will be asked to hold hands during the remainder of the discussion. (The instructor should monitor the groups.) After 5-8 minutes in the closed net, discussants will release hands and talk about the ways in which the closed net affected their feelings about the group and the content of the discussion. (20 minutes)

4. Using the fishbowl technique (inner and outer circle), each group will have a spokesperson in the inner circle to relate the feelings of his/her group. The outer circle will then respond to the report. (10 minutes. This exercise is optional if time is a factor).
5. This will be followed by dyad discussions of the exercise on "You and Touch" assigned in Born to Win. (Students will be encouraged to self-disclose only the information they consciously choose to share). (15 minutes)
6. Each dyad will merge with one other to form a small group and discuss about sharing the information. (10 minutes)
7. Summary: The instructor will summarize the report on affective

Student  
Preparation

Activity

learnings generated by the exercise and relate these learnings to the cognitive learnings reported in the slide-audio presentation (20 minutes)

8. The instructor will shake hands with each student as he/she departs. (5 minutes)

- 2nd day
1. Write two or three pages summarizing research on haptics introduced on the first day to turn in to instructor and to share with dyad partner.
  2. Exercise 1 on p. 64-65 in Born to Win. Discuss this with your dyad partner before turning it in to your instructor.
  3. Field study: keep an accurate record of types of encounters for 24 hours: dyad/small group/public/media. Turn in at next meeting.
  4. Read handouts on cognitive and affective learning.

COGNITIVE

Dyad discussions of cognitive learnings will help to provide continuity between class meetings and relate work done outside of class to the classroom. (20 minutes)

2. Each dyad will merge with one other to form a small group and discuss about sharing the information. (10 minutes)

3. Each group will elect a spokesperson to present in the public mode the feelings of the group: ok/not ok. (TA concept). (10 minutes)

4. A summary session should be held to relate findings in current research and affective learnings of students in dyad and small group situations. The significance of haptics in healthy relationships should be emphasized. (10 minutes)

5. A guest artist will present a lecture-discussion on communicating via tactile art. (60 minutes)

Student  
Preparation

Activity

5. Roach, "If We Touch" a script from Readers Theatre. Prepare to read orally in your group the part you have been assigned.
6. Register "In Touch with Feeling" Human Behavior. July 1975.
7. Young, Michael, "The Human Touch: Who Needs It?" Bridges Not Walls.

3rd day

1. Lair, "Touching People," I ain't much baby--but I'm all I've got.
2. Field study report due.
3. Chapter 8, Gunther, "Touch" Sense Relaxation.
4. Chapter 5, Hopper, "Nonverbal Communication Systems," Human Message System.
5. Read assigned script in class.

AFFECTIVE  
Cognitive

Each small group will read orally the Readers Theatre Script, "If We Touch" followed by a discussion of feelings. (20 minutes)

2. Play audio tape of the script recorded by students in oral interpretation. Ask students to listen to the tape in any way that seems most relaxing. (If possible, lights should be dimmed). Ask students to be open to feelings from the historical and present self. (In TA terms: listen to tapes from parent, adult, and child). (15 minutes)

3. Have students compare active involvement and listening experience with

Student Preparation	Activity
<p>6. Write a three page paper, to be turned in to instructor, concerning your personal learnings (cognitive and affective) involving your ability to maximize non-verbal communication as a natural process of information exchange.</p>	<p>script. (10 minutes) 4. Introduce the color slide presentation accompanied by a music tape which will emphasize affective learning. (15 minutes)</p>
<p>7. Lobsenz, "The Living Message in a Touch" <u>Communication Vibrations</u>.</p>	<p>5. Small groups will meet to discuss feelings of ok/not ok during reading of script vs. listening to tape, the slide show presentation, and personal learnings in relationship to handout on cognitive and affective objectives. (15 minutes)</p>
<p>8. Chapter 5, Patton &amp; Patton, "Sexuality as a Communication Variable" <u>Living Together</u>.</p>	<p>6. Using the fishbowl technique, each group will have a spokesperson in the inner circle to relate feelings of his/her group. The outer circle will then respond. (10 minutes)</p>
<p>Optional Readings: Henley: "Power, Sex, and Nonverbal Communication," <u>Language and Sex</u>.</p>	<p>7. The small groups will participate in the "Getting Acquainted Exercise" by Brown, 1971 (10 minutes). 8. End with dyad discussion of implications of the unit for increasing communication skills. Ask each student to consider maximizing his/her nonverbal communication as a natural process of</p>

Activity

information exchange. Students who wish to change communicative behavior in order to more fully experience others haptically should be given a handout entitled "Where Does One Begin?" (10 minutes)

9. The instructor should shake hands with each student as he/she leaves. (5 minutes)



IF WE TOUCH ...  
A READERS THEATRE COLLECTION

- Reader II: We come into the world alone.  
          We go away the same.  
We're meant to spend the interlude between  
  in closeness  
          Or so we tell ourselves.  
But it's a long way from the morning to the  
evening. ( 4, p. 16)
- Reader IV: Bend down and touch me with your eyes.  
Make every morning hold a new surprise,  
then when I stumble from my sleep  
yours is the first face that I'll see.
- Reader I: And as I amble through the day  
be there to guide me all along my way.  
If I should falter and fall  
your shoulder's near enough to touch.
- Reader IV: Follow me from darkness into light  
then we'll go back again  
through every midnight.
- Reader I: Bend down and touch me with your eyes.  
Let every morning hold a new surprise.  
So when I tumble into sleep  
yours is the last face that I'll see. ( 4, p.96)
- Reader III: Touch  
is one of the basic languages  
of muscles, nerves, love.  
Mothers instinctively  
touch their children  
to comfort;  
hold them close to relax  
and reassure.  
To be held is support;

to be touched is contact;  
 to be touched sensitively  
 is to be cared for. (2 , p. 111)

Reader I: Some people are touchy,  
 over sensitive,  
 don't like to be touched;  
 others are dying to be touched.  
 Being touched  
 is difficult for so many  
 because of the way  
 they were handled as children;  
 not really cared for. (2 , p. 111)

Reader II: Babies are easily touched,  
 love to touch.  
 To be touched is to be reached,  
 to feel and to be felt.  
 Touching and being touched  
 is a pleasure our culture  
 teaches us to keep away from.  
 Children and adults  
 from other societies  
 show more affection, animation,  
 touch much of the time.  
 Men walk down the street  
 holding hands, arm in arm  
 because they feel close  
 to one another.  
 In American culture  
 this is sometimes viewed  
 as a homosexual act. (2, p. 113)

Reader III: In early civilizations  
 people clasped forearms  
 or embraced  
 in unselfconscious contact,  
 exchanging the life energy,  
 creating a bond.  
 Today we shake hands  
 at arms length or embrace  
 with our shoulders and face,  
 avoiding real contact. (2, p. 112)

- Reader II: Touch and pleasure  
can be sensuous  
without being sexual.  
There is a great amount  
of communication, caring,  
close openness  
which can come  
in mutual sensory interaction;  
satisfaction. (2, p. 113)
- Reader I: Hugging and kissing is usually confined  
to the immediate family  
or to courtship. We learn  
to not express ourselves,  
to be reserved, cool.
- Reader IV: In a trip to Europe,  
Sidney Jourard  
counted the number of times  
friends made physical contact  
while talking, the average  
was about 100 times an hour.  
Returning to the mid-west  
he again took up the count.  
The average went down  
to 3 touches per hour.
- Reader I: Is it any wonder that so many Americans are  
out of touch? (2, p. 112)
- Reader III: Each person has his own touch,  
like his own voice  
or personality.  
Some are grabbers,  
crushers, rushers, heavy handed.  
Others uncomfortable,  
avoid by touching lightly,  
with sweaty, clammy palms.  
Still others  
are dead in their hands,  
without feeling,  
disconnected between their shoulders  
and hands  
Arm muscles held rigid  
too hard to feel. (2, p. 113)

- Reader II: Physical contact can be curing,  
reassuring;  
inspire desire or good will;  
create peace and release.  
Convey a sense of sharing,  
understanding, ease,  
pleasure or anger. ( 2 , p. 112)
- Reader I: Sensitive touching  
is both firm and gentle,  
giving;  
a helping hand  
creates confidence.  
Relating to the situation,  
the individual  
your real feelings,  
feeling  
rather than technique. ( 2 , p. 113)
- Reader IV: Touch has always been  
a most effective method  
of healing. The energy that flows through the  
hands  
can refresh, regenerate,  
revitalize.  
The laying on of hands  
can create great  
physical-mental changes.  
In the hands of a person  
who understands, touch  
sometimes can be as effective  
as drugs or surgery. ( 2 , p. 112)
- Reader I: Then touched He their eyes--saying according  
to your faith be it unto you. (19)
- Reader II: In touching you I know that you exist in a way  
that hearing you or seeing you cannot confirm.  
( 3 )
- Reader IV: I wonder if last night's love was silent  
Because words would have interfered,  
Or if our silence only told  
Of private fantasies too secretive to share?

Our eyes did not meet, only our cheeks,  
 Rubbing like boats tied patiently to drying  
 docks  
 Awaiting some joyous footstep to give them life.

Reader II: I wonder if last night's love was silent  
 Because words would have interfered,  
 Or if like children we had drifted off  
 To private worlds where there is touching and  
 tasting,  
 Laughing and whispering and sworn secrets  
 And music and sunlight on rootbeer rivers.  
 (12)

Reader I: Watching children grow  
 is like threatening the ivy  
 to climb the garden wall.  
 You wait for it to happen  
 you hurry it along with love.  
 But still you're disappointed  
 at giving someone life enough  
 to walk off on their own  
 and not be carried in your arms.  
 You never turn your back--not once,  
 and yet one day they've grown apart  
 or taller.  
 It's all the same.

Reader III: Polly put the kettle on we'll all have tea.  
 Giving love to children  
 has made us older overnight. (5 , p. 53)

Reader I: It's raining  
 and the children splashing in the mud  
 and the old men darting in the doorways  
 and the lovers underneath umbrellas  
 don't seem to mind.

Reader III: It's raining  
 see the leaves go flying past the window  
 we can sit inside and just do nothing  
 wouldn't it be nice to touch each other  
 gently, gently. (5 , p. 103)

Reader IV: Becoming

comfortable with touch  
 requires patience and awareness.  
 Experience  
 what your attitudes are,  
 how you touch,  
 what your feelings are.  
 Slowly, if you desire,  
 you can change these reactions  
 and allow yourself to  
 enjoy touching  
 not only others  
 but the floor, yourself,  
 paper, food, trees,  
 animals, flowers,  
 life. ( 2, p. 113)

- Reader I: Silence can mean live and let live: the appreciation that I am I and you are you. This silence is an affirmation that we are already together--as two people. Words can mean that I want to make you into a friend and silence can mean that I accept your already being one. ( 7, p. 51)
- Reader II: I remember--the wonderful feeling when I left ... good, warm, and relaxed ... As I passed you in the doorway I got a sense of being caressed, without your touching me. I felt my spine unshriveled. I hadn't known it was shriveled.  
 ( 1)
- Reader IV: Imagine yourself in a situation where you are alone, wholly alone on earth, and you are offered one of the two, books or men. I often hear men prizing their solitude, but that is only because there are still men somewhere on earth, even though in the far distance. I knew nothing of books when I came forth from the womb of my mother and I shall die without books, with another human hand in my own. I do, indeed, close my door at times and surrender myself to a book, but only because I can open the door again and see a human being looking at me. (8, p. v)

- Reader III: ... We are wary of touching. The more so because we need it so much and are starved for it ... the handshake becomes at the same time a caress and a fending off, a contract and a buffer. We need to touch, but are afraid of its power and the trust it demands. (19, p. 242)
- Reader II: ... oh,  
how I wanted to vote for  
humanhood  
to love  
to care  
to know you who stood  
beside me,  
but my time  
ran out. (13)
- Reader III: Sir, can you tell me the meaning of an obsolete word? I know medical history is a hobby of yours.
- Reader IV: I'll try. What word?
- Reader III: Auscultation.
- Reader IV: It meant listening.
- Reader III: Listening to what, Sir?
- Reader IV: Sounds made by the human body ... I thought you'd be puzzled. Doctors used to listen to their patients' bodies, and palpate them directly, too.
- Reader III: Directly? You mean they used some simpler kind of palpating machine than ours?
- Reader IV: No, really directly ... I see I'll have to demonstrate. Come here. Put your hand on my wrist--right on it, skin to skin.
- Reader III: May I really, Sir?
- Reader IV: Yes, yes: no-one's looking. Now in the old days, if you were the doctor and I the patient,

that would have been the usual thing. Television wasn't used in medicine at all; you wouldn't have been lying in your helicopter you'd have been sitting close by your patient, probably in his home.

Reader III: Sitting? Home?

Reader IV: Let's leave those words for another time and return to auscultation. Doctors used to listen to the air going in and out of their patients' lungs, and the heart valves opening and closing.

Reader III: How could they hear such things?

Reader IV: The world was virtually silent. Ancient literature is full of references to people's hearing the songs of birds and the cries of infants, and most authorities believe that such sounds literally were heard. The loudspeakers used to be turned off at night. Much of the Earth's surface was not even wired for sound. Probably everyone spoke much more quietly, and the way we are talking now would have been called shouting.

Reader III: Shouting?

Reader IV: Speaking more loudly than is necessary.

Reader III: But it is always necessary--

Reader IV: --To speak as loudly as possible. Yes, but it used not to be. What is more, in order to hear the lung sounds and the heart sounds better, doctors used something called a stethoscope.

Reader III: What's that like?

Reader IV: Nobody knows.

Reader III: Is it true, Sir, that in those days patients used to do much better?



- Reader IV: Do much better?
- Reader III: I mean, for example, was the recovery-rate from acute infections and trauma much higher? Did far fewer patients die in hospitals?
- Reader IV: It is quite true, and the reason is simple. Microorganisms were much less virulent then.
- Reader III: And what about trauma?
- Reader IV: It used to be much less violent. No other explanation is possible.
- Reader III: How do you know all this, Sir?
- Reader IV: Between ourselves, I've learnt to read. I know it's frowned on as taking up time which ought to be spent on listening and learning, and certainly you young fellows have enough to listen to; but you'd be surprised what interesting things have never been electronically recorded.
- Reader III: Can you write, too, Sir?
- Reader IV: Aha, my boy, now you're pulling my leg. (14)
- Reader II: All problems are not merely verbal,  
The philosophers tell me in uncounted thousands  
of words--  
But
- Reader I: I tried making love with my mouth taped shut  
And I lost my love.
- I tried making friends with my mouth taped shut  
And I lost my friend.
- I tried making war with my mouth taped shut  
But no one was angry and the shooting stopped.  
I went about the streets with my mouth taped  
shut  
And they took me to the nuthouse

Where I am to this day  
 Wondering  
 If all problems are not merely verbal. (9)

Reader II: I Talk-Write with Efficiency,  
 but the emotions and ideas  
 that are me trickle painfully  
 from a sieve of paranoid  
 social fears, and stifling  
 language inadequacies.

You Listen-Read Very Accurately,  
 but your fickle consciousness skips over,  
 rearranges, and mangles every message, until  
 each exciting, fullbodied concept has been  
 reduced to a skeleton of uninformative  
 information.

Let me feel your thoughts,

Let me touch your words.

Can you listen past my mouth or  
 look past my skin?

If I could distinguish vibrations, I  
 believe that I would own the knowledge of  
 the world. (17)

Reader IV: When words fail ... let the silence say ...  
 that only my eyes can tell you ... I care.  
 (11, p. 86)

Reader III: Most of us learn that loneliness is safe and  
 that some people hurt when they touch. It's  
 called "growing up." We also learn that there's  
 safety in the social herd because nobody has  
 time to touch another's loneliness. There's  
 nothing like a herd for safety and loneliness.  
 (18)

Reader I: A handshake is a ritualized caress. It is a  
 symbolic reestablishment of communication.  
 As a gesture of friendship, no symbol could  
 be as powerful as that of touch. For there  
 is power in touch. It demands and communicates  
 a dimension of commitment and trust unlike  
 any other form of communication. I may talk  
 to you and remain hidden from you. But, if  
 we touch, I am vulnerable. I may reveal more

of myself to you than I can trust you with.  
(20, p. 241)

Reader IV: I don't want you to get the idea she was a goddam icicle or something, just because we never necked or horsed around much. She wasn't. I held hands with her all the time, for instance. That doesn't sound like much, I realize, but she was terrific to hold hands with. Most girls if you hold hands with them, their goddam hand dies on you, or else they think they have to keep moving their hand all the time, as if they were afraid they'd bore you or something. Jane was different. We'd get into a goddam movie or something, and right away we'd start holding hands, and we wouldn't quit till the movie was over. And without changing the position or making a big deal of it. You never even worried, with Jane, whether your hand was sweaty or not. All you knew was, you were happy. You really were. (6)

Reader I: When I come upon a hillside, and taunted by desire cast myself down--rolling in the grass--laughing desiriously  
Or in the quiet moment of love--so filled with you that the fog horns outside are melodiously inviting Or in the sheer uproarious assertion of me in all my Power -- shouting, dealing, teaching, and touching Yet a word comes--Joy!  
(11, p. 87)

Reader III: Sex should be a treat for all the senses: sight, sound, smell, taste, temperature, and touch. Don't knock it until you try it. It's like money. If you don't have it, you're likely to be unhappy until you do. But once you have it, what you do with it is much more important than how much you have, and how you use it reveals what kind of person you are.  
(2)

Reader II: I like the bed unmade.  
It smells like each of us in turn  
and each of us together. (5, p. 20)

- Reader I: Stranger, do not come one step nearer  
do not reach out toward me  
stranger  
we must not touch our hands  
to join your loneliness and mine
- Reader IV: Abide by the regulation:  
no man shall approach a man  
no woman shall approach a woman  
nor man, woman, nor woman, man  
Our life depends on it.
- Reader II: You wear a red scarf  
I wear a blue cap  
there can be nothing between us
- Reader III: If you ask me the time, I must turn my wrist  
If I ask you the way, you must point
- Reader I: Stranger, at the time of fire  
you will pass through the smoke to save me  
Stranger, at the time of flood  
I will lift you from the water  
At the time of the invader  
we will gather together (10)
- Reader IV: We're always looking for ways to keep from  
facing ourselves. Hostility is a neat way  
out. We blame someone or something out there  
and we're safe from touching ourselves. (18)
- Reader III: Each one of us lives a private life of ache  
and fear. Some people call it soul; I call  
it guts. Whatever it's called, I know where  
it is because I can feel it now and then.  
Maybe you can too. Put your hands across your  
navel and press gently; don't hold your breath.  
Maybe you'll feel it. (18)
- Reader II: Every time I see you  
The pain comes back again.  
And my chest goes tight  
Somewhere around my heart  
I like the tension better  
When it's in my stomach.

So I can eat it away  
 Or seduce it with martinis.  
 The chest pain is not seduceable.  
 It only wants your arms  
 And that's impossible  
 Because you told me  
 That love must never make demands.

Would you talk to my heart sometime?  
 He doesn't understand? (12, p. 73)

Reader I: Making love means touching, the human way of overcoming loneliness. Good lovers do not avoid their feelings, they go with them. They are gentle and responsive and passionate, all at once. The same thing happens in good teaching. (18)

Teaching is a touching profession. The best teachers are good touchers. They care with their eyes. They touch you even though you have bad teeth and a low I.Q. (18)

Reader IV: What is most personal and unique in each one of us is probably the very element which would, if it were shared or expressed, speak most deeply to others. (16)

Reader III: The courtship--intercourse situation, is virtually our only allowable intimacy. And so we fill that one allowable intimacy with all of our needs to touch. We thrust all sorts of totally inappropriate feelings into that relationship. That one act must bear the weight of all our needs to communicate what cannot be said! (20, p. 242)

Reader IV: I do my thing, and you do your thing.  
 I am not in this world to live up to your expectations  
 And you are not in this world to live up to mine.  
 You are you and I am I  
 And if by chance we meet, it's beautiful.  
 If not, it can't be helped. (15)

Reader I: Ideas are clean. They soar in the serene  
supernal. I can take them out and look at  
them, they fit in books, they lead me down  
that narrow way. And in the morning they are  
here. Ideas are straight--

Reader III: But the world is round, and a  
messy mortal is my friend.

Reader II: Come walk with me in the mud ... (7 , p. 303)

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Experiencing Others Haptically:  
A Getting Acquainted Exercise Designed by Brown

I want everyone to pair up with someone of the opposite sex (if possible) whom you don't know well, but would like to get to know better ... Now find another pair that you both would like to get to know better and form a group of four. Get agreement from all four that you're interested and willing to be together for awhile and get to know each other better ... (If there are leftovers, form groups of six, five or three). Now stand in a circle so that you are next to the two others in your group that you would most like to know better ... Now silently sit down comfortably in a small circle in such a way that your hands are free and so that you can touch elbows easily ...

Now close your eyes and get in touch with your body. Keep your eyes closed until I ask you to open them. Notice what is going on inside your skin ... Become aware of your breathing ... and notice any tension or discomfort ...

See if you can become more comfortable ... Now bring your hands together as if they were strangers, and let them discover each other ... How do these hands meet and discover

each other? ... And how do they move and interact? ...

Now let your hands come to rest together ... Again get in touch with your body, and what is going on inside you ...

In a minute or two I'm going to ask you to reach out to the people on both sides and get to know their hands.

Right now, I want you to become aware of what you experience as you leave the present and begin to anticipate the future

... Be aware of what thoughts, images and fantasies you have ... and notice how your body feels in response to these

images and fantasies about the future ... Now see how much you can return to the present by focusing exclusively on

your physical functioning now - your feelings of excitement or tension. Now reach out slowly and contact the hands on

each side of you. Say hello with your hands, and then gently get to know these hands ... As you do this, realize how the

thoughts and fantasies in your head get between you and your sensations ... Notice that when you pay attention to the

words and images in your head, what you feel in your hands fades or disappears ... And notice that the reverse is also

true; their contact with these other hands, the words and images in your head tend to fade away ... So really get

to know these hands you are touching. What are they like? ... How do they feel? ... How do they move? ... If these

hands were people, how would you describe them?

Now I want you to try expressing different feelings and attitudes through your hands. As you do this, also be aware of how these other hands express the same feelings.

First, express playfulness ... Now be caring and tender

... Now express dominance ... Now be submissive and pleading

... Be alive and active ... Now dead and passive ... Express arrogance ... Now be timid ... Don't be too rough, as you

express anger ... Now be loving ... Now express irritation

... express joy and happiness ... Now be sad and depressed

... Be rejecting ... Now express acceptance ...

Now that you have a "vocabulary" have a conversation with these hands. See if you can express to each other how you feel, and what is going on between you ... For example, is your interaction mostly caring and communicating, or is it a contest of strength? ... Is one more active and one more submissive and withdrawing? ... Would you like the other to be different? See how much you can communicate with your hands ... Now very, very slowly begin to say a silent goodbye to these hands you have been touching ... Slowly say goodbye and bring your hands back to yourself ... Be aware of your hands and how you feel now that you are by yourself again ... Quietly absorb whatever you have just

experienced ... In a minute I'm going to ask you to open your eyes and tell each other what you discovered about yourself and the others through this hand conversation. Talk to someone, and do this in the first-person present tense, for example: "I don't feel very active, and I notice the roughness of your skin, and I'm surprised that you are so tender and gentle-" or whatever your experience is. Open your eyes now and share your experiences for about ten minutes.

APPENDIX E

School of Humanities  
And Behavioral Sciences

P.O. Box 1247  
Huntsville, Alabama 35807

December 3, 1976

Dear Esteemed Colleague:

My warmest wishes for the Holiday Season!

Please take time before your "escape" from academe to review the enclosed materials to be used as "treatment" in a dissertation study entitled "Teaching Haptics in the Basic Course: A Study of Means and Effects."

My committee at North Texas has requested that these materials be reviewed by an advisory group of experts in the field. The "duties" of the advisory group involve (1) reviewing the print media materials enclosed, filling out the form at the bottom of this letter, and returning it to me; and (2) reviewing the electronic media at SCA in San Francisco, if possible. (These materials will be presented as part of the Media Forum, Tuesday, December 28, at 2:30 p.m., in the Franciscan Room E).

Please do help by sharing your expertise in this way. I want these materials to make a difference in the nonverbal communication competencies of my students. Your participation in this review will enable this study to better examine the means of teaching haptics.

Very truly yours,

Carol Ashburn Roach  
Instructor in Speech

---

Please fill out the following form and return by January 15, 1977, to:

Carol Ashburn Roach  
The University of Alabama in Huntsville  
P. O. Box 1247  
Huntsville, AL 35807

I have reviewed the print media material sent to me by Ms. Roach.

COMMENTS:

---

Signature

## ESTABLISHING CURRICULUM VALIDITY: REVIEW BY EXPERTS

SSCA Task Force on Innovation in Communication Instruction

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Regis O'Connor  
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APPENDIX F

## INTRODUCTORY HANDOUT

## CONTROL AND EXPERIMENTAL GROUPS

CM 113 Basic Speech Communication  
3 semester hours

Texts: #1 Brooks, Speech Communication  
#2 James and Jongeward, Born to Win  
#3 Hasling, The Audience, The Message, The Speaker

Course Objectives: 1) To become more conscious of options in communication styles, 2) to become more aware of the status of individual communication skills in three modes: intra-personal, interpersonal, and public (combining theory and practice), 3) to make a conscious choice to change communication behavior if change is desired.

Course Expectations: Class participation is important. You are expected to be in class, to be on time, and to be prepared for all assignments. If you are absent more than two times without an acceptable excuse (personal or family illness, death in the family), your class participation grade will be lowered five (5) points for each class missed. (10 points for the TTh class). This will represent your maximum class participation grade. Other items included in class participation are all individual and group assignments not given an individual grade.

Late Assignments: All speaking, listening, reading, and writing assignments are due on the day assigned. If a major assignment is more than 24 hours late, the maximum grade on that individual assignment will be lowered ten (10 points) for every day it is late. Exams may be taken late only with prior permission of the instructor.

Grading System:

Speaking and Listening 60%

Written 40%

20% - class participation

10% - Exam I

10% - participation outside classroom

10% - Exam II

30% - graded speeches (4 speeches,  
7.5% each)

10% - Final

10% - Written outlines

SYLLABUS

Control Group (MWF)		Experimental Group (MWF)	
<u>Days</u>	<u>Topic</u>	<u>Days</u>	<u>Topic</u>
1st	Introduction to course.	1st	Introduction to course.
2nd	Dyadic Communication: Self-Analysis Inventory. Reading: #2, 1.	2nd	Dyadic Communication: Self-Analysis Inventory. Reading: #2, 1.
3rd	Holiday	3rd	Dyadic and Small Group Discussion Self-Disclosure: Pro and Con. Reading: #1, 2; #2, 2.
4th	Dyadic and Small Group Discussion or Self-Disclosure: Pro and Con. Reading: #1, 2; #2, 2.	4th	Lecture-Discussion, "What is Communication?" Reading: #1, plus overview; #2, 3.
5th	Lecture-Discussion, "What is Communication?" Reading: #1, 1 & 2 plus overview; #2, 3.	5th	Individual Presentations, 2 minutes. My Expectations for this Course." Reading: #2, 5.
6th	Lecture-Discussion, Processing Information. Reading: #1, 3; #2, 4.	6th	Discussion and Group Exercises, "Communication Ethics." Reading: #2, 6.
7th	Individual Presentations--2 minutes. "My Expectations for this Course." Reading: #2, 5.	7th	Informative or Persuasive Speeches, Subject: "Listening." Reading: #1, 4; #2, 7.

<u>Days</u>	<u>Topic</u>	<u>Days</u>	<u>Topic</u>
8th	Discussion and Group Exercises, "Communication Ethics." Reading: #2, 6.	8th	Workshop on Outlining. Reading: #3, 4, 5, 6.
9th	Informative or Persuasive Speeches, Subject: Listening. Reading: #1, 4; #2, 7.	9th	Preparation for Speaking. Reading: #1, 5, 8; #2, 9.
10th	Workshop on Outlining. Reading: Hasling 4, 5, 6.	10th	Readings in Nonverbal Communication. Reading: #1, 6 & 7; #2, 8.
11th	Readings in Nonverbal Communication. Reading: #1, 6 & 7; #2, 8.	11th	Measures of Personal Perception. Reading: #1, 5, 8; #2, 9.
12th	Measures of Personal Perception. Reading: #1, 5, 8; #2, 8.	12th	Exam I: #1, 1-5; #2, 1-5.
13th	Preparation for Speaking. Reading: #1, 9 & 10; #2, 10.	13th	Holiday.
14th	Exam I: #1, 1-5; #2, 1-5.	14th	Lecture-Discussion: Introduction to Haptics. Reading: #1, 6; #2, 3.
15th	Demonstration Speeches--2-4 minutes. Reading: Hasling 10.	15th	Dyadic Communication: Relating Cognitive and Affective Learnings. Assignment Due--Two-Three Page Paper on Research in Haptics; Written Response to Exercise 1, p. 64-65. #2. Assignment of Field Study due Friday.

<u>Days</u>	<u>Topic</u>
16th	Demonstration Speeches (Continued). Reading: Hasling 2.
17th	Practicing Your Delivery. Reading: Hasling 11.
18th	Workshop on Outlining. Reading: Hasling 7 & 8.
19th	Interviewing.
20th	Measures of Personal Perception: Old and New.
21st	Experiencing the Speaker Role: Impromptu Speeches - TV Room.
22nd	TV Room - Replay: Analyzing Communication in the Public Mode. Reading: #1, 11-13.

<u>Days</u>	<u>Topic</u>
16th	Communication Through Tactile Art. Guest Artist. Reading: Xerox in library of articles by Register, Young, and Lair.
17th	Experiencing Others Haptically: Fantasy and Reality. Reading: Script (handout), Xerox in library: Lobsenz, Patton and Patton.
18th	Building Communication Skills in Haptics. Reading: Xerox in library Gunther and Hopper plus three page paper on personal learnings. Optional Reading: Henley.
19th	Measures of Personal Perception Revisited, plus Interviewing. Reading: #1, p. 193-204.
20th	Experiencing the Speaker Role: Impromptu Speeches - TV Room. Reading: #1, p. 193-204.
21st	Practicing Delivery - TV Room - Replay. Reading: #3, 7, 8, 9.
22nd	Outlining the Informative Speech. Reading: #3, 2 & 10.

<u>Days</u>	<u>Topic</u>	<u>Days</u>	<u>Topic</u>
23rd	First Round Graded Informative Speeches--2-3 minutes.	23rd	First Graded Informative Speech--2-3 minutes.
24th	First Round Graded Informative Speeches--2-3 minutes.	24th	First Graded Informative Speech--2-3 minutes.
25th	Exam II: #1, 6-13; #2, 6-10.	25th	First Graded Persuasive Speech--3-4 minutes.
26th	First Round Graded Persuasive Speeches--3-4 minutes.	26th	First Graded Persuasive Speech--3-4 minutes.
27th	First Round Graded Persuasive Speeches--3-4 minutes.	27th	Exam II: #1, 6-13; #2 6-10.
28th	Second Round Graded Informative Speeches--4-5 minutes.	28th	Second Graded Informative Speech--4-5 minutes.
29th	Second Round Graded Informative Speeches--4-5 minutes.	29th	Second Graded Informative Speech--4-5 minutes.
30th	Second Round Graded Persuasive Speeches--5-6 minutes.	30th	Second Graded Persuasive Speech--5-6 minutes.
31st	Second Round Graded Persuasive Speeches--5-6 minutes.	31st	Second Graded Persuasive Speech--5-6 minutes.

SYLLABUS

Control Group (TTh)		Experimental Group (TTh)	
<u>Days</u>	<u>Topic</u>	<u>Days</u>	<u>Topic</u>
1st	Introduction to course	1st	Introduction to course
2nd	Dyadic Communication: Self-Analysis Inventory and small group discussion. Reading: #1, 2; #2, 1&2.	2nd	Dyadic Communication: Self-Analysis Inventory plus small group discussion. Reading: #1, 2; #2, 1&2.
3rd	Lecture-discussion: What is Communication? and Processing Information. Reading: #1, 1&2 plus overview; #2, 3&4.	3rd	Lecture-Discussion: Self-Disclosure: Pro and Con., plus "What is Communication?". Reading: #1, 1&2 plus overview; #2, 3&4.
4th	Individual Presentation-2 minutes "My Expectations for this Course" Discussion and exercises on Communication Ethics. Reading: #2, 5&6.	4th	Individual Presentations-2 minutes "My Expectations for this Course" plus Discussion and Exercise on Communication. Reading: #2, 5&6.
5th	Informative or Persuasive Speeches Subject: Listening. Reading: #1, 4; #2, 7.	5th	Informative or Persuasive Speeches Subject: Listening. Reading: #1, 4; #2, 7.
6th	Workshop on Outlining. Reading: Hasling 4, 5, 6.	6th	Measures of Personal Perception and Readings in Nonverbal Communication. Reading: #1, 5, 6, 7; #2, 8, 9, 10.
7th	Readings in Non-Verbal Communication. Reading: #1, 6&7, #2, 8.	7th	Lecture-Discussion: "Outlining and Preparation for Speaking." Reading: #1, 8, 9, 10; #3, 4, 5, 6.



<u>Days</u>	<u>Topic</u>	<u>Days</u>	<u>Topic</u>
8th	Measures of Personal Perception and Preparation for Speaking. Reading: #1, 5, 8, 9, 10; #2, 9&10.	8th	Exam I--#1, 1-5; #2, 1-5.
9th	Exam I--#1, 1-5; #2, 1-5.	9th	Introduction to Haptics plus Dyadic Communication; Relating Cognitive and Affective Learnings. Reading: #1, 6; #2, 3 Assignment of field study.
10th	Demonstration Speeches--2-4 minutes. Reading: Hasling: 2&10.	10th	Communication Through Tactile Art; Guest Artist plus Experiencing Others Haptically: Fantasy and Reality. Reading: Xerox of articles in Library. Register, Young, Lair, plus 2-3 page paper.
11th	Practicing delivery and workshop on outlining. Reading: Hasling: 7, 8, 9.	11th	Building Communication Skills in Haptics: Reading: Xerox in library of Lobsenz, Patton and Patton, Gunther, Hopper; Henley optional. Three page paper on personal learnings due.
12th	Interviewing and Measures of Personal Perception Revisited.	12th	Measures of Personal Perception Revisited plus Interviewing. Reading: #1, p. 193-204.
13th	Impromptu Speeches: TV Room plus Replay: Analyzing Communication in the Public Mode. Reading: #1, 11-13.	13th	Experiencing the Speaker Role. Impromptu Speeches - TV Room. Reading: #1, 11-13.

Days                      Topic

- 14th      First Round of Graded Informative Speeches--2-3 minutes.
- 15th      First Round of Graded Persuasive Speeches--3-4 minutes.
- 16th      Exam II--#1, 6-13; #2, 6-10.
- 17th      Second Round of Graded Informative Speeches--4-5 minutes.
- 18th      Second Round of Graded Informative Speeches--4-5 minutes (continued).
- 19th      Second Round of Graded Persuasive Speeches--5-6 minutes.
- 20th      Second Round of Persuasive Speeches--5-6 minutes.

Days                      Topic

- 14th      Outlining the Informative Speech. Reading: #3, 2&10.
- 15th      First Graded Informative Speech. 2-3 minutes.
- 16th      First Graded Persuasive Speech. 3-4 minutes.
- 17th      Exam II: #1, 6-13; #2, 6-10.
- 18th      Second Graded Informative Speech. 4-5 minutes.
- 19th      Second Persuasive Speech, 5-6 minutes.
- 20th      Second Persuasive Speech, 5-6 minutes.

APPENDIX G

## SCRIPT FOR BLACK-AND-WHITE SLIDE PRESENTATION

The study of human interaction involves both verbal and nonverbal communication.

\*

Some researchers believe that 65% of a message is communicated by the nonverbal component.

\*

Few would argue with the fact that nonverbal communication is the language of relationships.

\*

Nonverbal communication is that part of our language which is nonsegmental, or nonverbal.

\*

The classification shown is the one used by McCroskey in Introduction to Rhetorical Communication: proxemics, kinesics, chronemics, vocalics, oculosics, objectics, and haptics.

\*

Proxemics is the use of space.

\*

Research indicates that the way we use our space is defined by our culture and the nature of the relationship.

\*

Kinesics is the way we use our bodies, or body language.

\*

Perhaps this is the best researched area of nonverbal communication.

\*

Chronemics is the use of time.

\*

It, like proxemics and kinesics, is culture-bound.

\*

How we choose to spend our time depends on our life-style...

\*

...and the intimacy of our relationships.

\*

Vocalics is the use of voice in communicating the subtleties of our language.

\*

This is sometimes called para-language.

\*

Oculesics is the use of eye contact.

\*

We tend to look more and for longer lengths of time at the people we like.

\*

Some researchers feel that oculesics can be related to status.

\*

Objectics is the use of objects. Clothing styles,...

\*

...various styles of architecture,...

\*

...choice of cars and appliances may be studied in an evaluation of a person's use of objects.

\*

Linus' blanket is a study in objectics.

\*

Haptics is the use of touch.

\*

It is basic, primal communication.

\*

In our Western culture, it is often a taboo topic, because we view it as something one sex does to another.

\*

Leathers has designed a Nonverbal Feedback Rating Instrument. He feels that, by studying the nonverbal message alone, we can describe a person's communication on a semantic differential, using specific bipolar adjectives. This set consists of confident-unconfident, involved, withdrawn, attentive-unattentive, pleased-displeased, and deliberative-spontaneous.

\*

This set consists of clear-unclear, friendly-hostile, analytical-impulsive, interest-disinterest, and responsive-unresponsive. Keep these two adjective sets in mind as you look at the next picture.

\*

Perhaps you would like to try the rating scale to evaluate the nonverbal communication in this picture. Which family member looks confident? Which looks withdrawn? pleased? Is anyone attentive? analytical?

\*

Haptics, the rhetorical name for the use of touch, is the subject of this presentation. It is the least well researched area of nonverbal communication. O'Connor's study of the contents of the basic speech course seems to indicate that haptics is infrequently taught in the beginning course. Most of what we know about haptics, with young animals and the human young, is reviewed for us in Montague's classic work Touching. He writes: "What emerges from the observation and experiments reported here is that the cutaneous stimulation in the various forms in which the newborn and the young receive it is of prime importance for their healthy, emotional, or affectional relationship; that licking, in its actual and figurative sense, and love are closely connected. In short, that one learns to love, not by instruction, but by being loved."

\*

In his article, "The Sensory Influence of the Skin," written in 1953, Montague declared that the role that the skin plays in establishing the quality of the infant's interpersonal relationship with the mother is often understated, and asked: "Is it possible that we need to caress, to massage infants rather more than we have recognized in the past?" He then continued: "May it not be that if we massage his skin in infancy, it may later be unnecessary for a physician to massage his psyche?" Current research suggests an affirmative answer to both questions.

\*

Haptics does make a difference. This slide is taken from LeBoyer's book, Birth Without Violence. LeBoyer is a French pediatrician. In a dissertation study done in Dallas, Texas by Rice, she found that haptics made a dramatic difference in the neurological and physical development of premature infants.

\*

Regardless of the culture, haptics does make a difference in newborns and prematures; and, as LeBoyer's babies grow up, they seem to be developing good self-concepts.

\*

Research with adults indicates that the ability to experience others haptically is related to self-esteem. Adults with high self-esteem seem better able to communicate emotions haptically than low self-esteemed persons.

\*

A dissertation study by Clay reports that, although haptics is used by children to communicate affection for adults, mothers in the United States may use haptics for control more than for affection.

\*

Studies by Jourard report that as a child grows up, his/her communication experiences with parents include fewer haptics.

\*

Jourard hypothesizes that after a child reaches adolescence, unless he has an opposite sex friend, he experiences very little touch.

\*

Heslin's studies suggest that there is a taxonomy of touch that is determined by the type of relationship. It consists of five levels of relationships: functional/professional, social/polite, friendship/warmth, love/intimacy, and sexual arousal.

\*

In the first relationship, functional/professional, a person is doing something to another with that other person as object. This relationship allows persons of low status to include haptics in their relationships with high-status persons. It also allows for male-to-male encounters and other relationships that are considered taboo in the United States. Separate studies by Goffman and Henley indicate that there is a "pecking order" for haptics.

\*

In this relationship, the coach can pat the player on the bottom.

\*

The players can hold the coach.

\*

Male/female dyads can ignore the usual American taboos concerning body accessibility. In America, only on the sports field are male and female bottoms patted with such abandon in a public place.

\*

The physician and his patient can communicate haptically.

\*

The second relationship, social/polite, is characterized by the handshake. Heslin suggests that if the handshake does not mean that persons are friends, it at least indicates they are not enemies. Thus, haptics is a status equalizer in this relationship, as well as in the first.

\*

The next relationship is friendship/warmth. When words fail, we often use haptics to comfort.

\*

Our family relationships may fall within this category.

\*

In other cultures, men can hug and kiss each other and go down the street holding hands. In America, this can occur only on the sports field, or perhaps in the locker room after a winning game.

\*

As we grow older, we are somewhat liberated from this taboo. We begin to see each other as persons.

\*

Walker's dissertation study, "Openness to Touching," indicates that few of us Americans are comfortable expressing ourselves haptically with strangers. Yet in times of sorrow and tragedy, we do gather together and forget the rules of the game.

\*

Animals do make good friends. They accept us as we are. This level of acceptance in the friendship/warmth relationship allows us freedom to be ourselves.

\*

It is sometimes hard to differentiate friendship/warmth from the fourth relationship, love/intimacy.

\*

As Bernard Gunther says in Sense Relaxation, "Hugging and kissing is usually confined to the immediate family or to courtship. We learn not to express ourselves."

\*



In his sermon, "The Human Touch: Who Needs It?," Young declares, "The courtship/intercourse situation is virtually our only allowable intimacy..."

\*

...and so we fill that one allowable intimacy with all of our needs to touch...

\*

...We thrust all sorts of totally inappropriate feelings into that relationship."

\*

The fifth level of intimacy is sexual arousal. Masters and Johnson state: "Sensory awareness and its communication can be extremely difficult for those who have not had the opportunity to develop a sensate orientation gradually..."

\*

...under circumstances in which the experiences were valued and encouraged, or at least not negated."

\*

Heslin hypothesizes that a person may become a "love object" in the love/intimacy relationship and a sex object in haptics whose purpose is sexual arousal.

\*

In the conclusion to his paper, "Steps Toward a Taxonomy of Touching," he writes: "The freedom a person has to scratch, to disagree, to be sloppy, to show a ruthless side of himself, is greater with a friend than with a lover, even though there are friendship relationships in which a partner has little freedom to be himself, and there are love relationships in which the partners are free to be themselves. These kinds of relationships are the exception, not the rule. This view may be particularly true for married women, as other studies at Purdue would seem to indicate that married men often relate haptics and sexual arousal with status-assertiveness rather than love-playfulness. Separate studies by Hite and Henley support this hypothesis.

\*

Haptics does make a difference. It determines what kind of person you are...

\*

...the way you use the space around you...

\*

...the directions you choose to grow.

\*

A dissertation study by Smith found that five emotions can be indicated by using haptics as the sole means of communication. These emotions are mothering, or parenting, fearful, detached, playful, and angry.

\*

Mothering, or parenting:...

\*

...haptics that says, "I care,"...

\*

...from the person who determines our basic level of trust...

\*

...who most influences our ability to reach out and love others.

\*

Fearful.

\*

Detached.

\*

Playful:...

\*

...the ability to be spontaneous...

\*

...to relate to others enthusiastically.

\*

Angry: coming into the world without experiencing the warmth of another human.

\*

Haptics can make a difference. This is a LeBoyer family. Can you use the Leathers' Nonverbal Feedback Rating Instrument to determine their self-esteem?

\*

Yes, the role of the skin in the relationship between the mother and baby has been understated.

\*

Haptics needs to become an integral part of our nonverbal communicative repertoire. Adequate haptics in infancy is extremely important to the development of an individual. Frank's monograph declared that "inadequate touching may retard and mar speech development, cognition, symbolic recognition, and the capacity for more mature tactile sensitivity."

\*

Let us incorporate appropriate use of haptics into our communicative encounters.

\*

Increase your capacity for intimacy by reaching out to others. You can liberate the capacity to love in others by recognizing them as persons.

\*

Loving and caring take time. Take time to reach out to others to say, "I care."

\*

Haptics is humanizing. It is a vital part of our study of human interaction.

APPENDIX H

### Sample of Student Reaction to Touch Awareness Inventory

I have learned from this exercise two important things. First of all, I have found that I have overcome much of my fear about touching people of the same sex...Secondly, I have realized the importance of touch in relating to someone. There seems to be a flow of both minds when touch is involved.

At home the touching is almost nil. I did go out of town, though, which prompted my Mom to hug me once before I left.

I have been concerned about my feelings toward touch. I don't enjoy people touching me, but would like to. Through this inventory, I found that I didn't touch anybody for four days. I believe I need to do more touching in order to enjoy being touched. I plan to do an Inventory of my touching and see if my attitude improves.

...it struck me that other people are receiving very little touch from me. I intend to concentrate on being more thoughtful and attentive in my touch relations. Being near the center of many people's lives, I can get the ball rolling. Touch is contagious; touch begets touch...I am thinking of my immediate family which I have neglected to recognize by touch, and I can see how they must long for it. I shall change in steps to avoid coming on too strong suddenly.

I find it very difficult to 'chronicle' every contact with someone else's skin that I have. The tendency I've had during days when I knew I would have to recount the touch was to avoid being touched to avoid the difficulty...

I think my greatest reaction was an increased awareness to touch as a means of communication. Most people I feel, do not consider touch as a natural mode of communication, probably because of an ingrained belief that in our society that touch, particularly public touch is taboo.

The touch exercise made me aware of the amount of time I've been spending with my family and friends; which is very little. I have therefore made a decision to hold off on my college education until I retire, and spend each evening with my wife and three daughters, instead of a textbook.

Doing the Touch Awareness Inventory has brought home a message: I had not realized how poor my life is when it comes to touching. If this last week-end represented a typical example of my life-style, then I am living in a very isolated manner indeed. I received touch seven times in four days! If I were to count the times that I touched other people, the result would probably not be much better...I for my part, have promised myself to make more of a conscious effort to touch those around me more often.

This exercise showed me that I do not receive the number of touches that I thought I did. I also learned that almost all of my tactile communications are inclusive and come mostly from the opposite sex.

I now can see the importance of touch and what it does to me as a person...I feel that the survey was very helpful in letting me see the impact of haptics and how it affects my life.

I never realized that I was touched so much--I do think this was an exceptional weekend though.

The four day Awareness Inventory for Touch setting was almost entirely in the home. All touch communication encounters were received from my wife and my son.

In the four days I noticed that I didn't experience as much touch as I thought I was going to experience. Persons who touched me were mostly close friends and relatives. Each encounter was inclusive.

How's this for a blow to the ego? I went for four days and the only touch communication encounters I had were with my parents.

I was amazed that I received touch mostly from males and I have more contact with females.

I noticed that I was touched very much by family and close friends but most of the other people I talked with did not touch me. Most of the touches were by the opposite sex.

The only thing that disturbed me about the study was that I discovered how little touching I both give and receive from day to day. At the same time, it helped me, because I see a definite need to alter my touching habits. I believe that if I begin to do more touching I will receive more touching.

I felt uncomfortable at times, I felt myself trying to receive touch just to complete the study. However, I think it did serve to make me understand that often, I (we) take touch too lightly in my (our) everyday lives. I enjoyed being touched. I did not like to scorekeeping, however.

I learned nothing new. It only proved what I know is true--that people of the same sex just don't touch each other very often, and that people of the opposite sex are very selective--wary--of touching. I enjoy the exceptions to the rule in many instances, as it is satisfying to feel that others care. The whole section on haptics has helped me to loose some of the "binds" that keep me apart from other people.

Overall, I feel uncomfortable about my lack of tactile communication. I feel that it should be a more integral part of my life and relationship with others. After this was all recorded I realized that I probably touch our pet (lap dog) more than any person. This leads to my opinion that social aspects of the house pet are more significant than we realize. The house pet seems to be a receptacle of tactile collection and dissimulation. We love and pet this animal which in turn becomes a medium for our own stifled tactile communicative efforts. The dog readily receives and gives what we would like to receive and give ourselves. It is an outlet for us and an easy way out at that.

I was not comfortable keeping score on who touched me and who did not touch me. Everytime I did have an encounter, I felt I wanted to say hold on and let me record this.

Unfortunately, the period that was set aside to allow us to do this assignment was a "dry spell: for me. However, it told me something about myself: that I still haven't realized the potential that touching has in communicating, especially interpersonally.

I experienced exclusion touch this week which was devastating. I realized that I didn't get touched very much.

I found it interesting to observe people's touching patterns. Two of the touches I received during this period were "exclusion hugs." The person hugged me, but at the same time pushed me away. I took this to mean, "Don't get too close to me."

I didn't enjoy "keeping score" of my touch encounters. I didn't enjoy my touching experiences as much knowing I was keeping score.

The awareness often took the spontaneity out of the encounter.

To be aware of who touched you and when took some of the enjoyment out of the encounter.

This time period was not a very prolific touch period, as I've been writing papers and such constantly for days, and have been relatively cloistered. One of my more notable touch encounters was with a girl from another CM 113 class. She wailed, after we'd been conversing about other matters for an hour or so, "I've been doing this for two days, and no one's touched me yet." Well, I was quite willing to oblige and gave her a full body-hug in reassurance. And I counted the encounter, too--I would have done it sooner or later anyway, and besides, just because someone asks to be touched doesn't mean it can't be meaningful...I don't care if she was in a CM 113 class; I embraced a woman, not a book. So there's Appendix C for you...

Majority were with children, mine, cubs, or during testing--seems to indicate very little adult "touching."

I was amazed that most people I come into contact with usually take the initiative.

I found it interesting and enlightening, and (although it was not intended to) it helped me to become aware of the possibilities within my grasp of increasing my haptical communications with others in daily encounters.

To be honest with myself, I was very uncomfortable with the project. I was uncomfortable because I found out that I'm not touched hardly at all--and I am the one who does all the touching...to my surprise I found that if I didn't touch no one responded to my need for touch. You think that didn't hurt.

I attempted to act normal and not to promote more than the usual touch encounters--I did not record such encounters as handshakes which are considered more of a meaningless social gesture..or any other encounters I considered methodical and without any real significance in a communication mode.



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