

AN INVESTIGATION OF THE EFFECTS OF
RECEIVER APPREHENSION AND SOURCE APPREHENSION
ON LISTENING COMPREHENSION

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by

Katie Paschall and Anthony J. Clark

University of Florida

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ABSTRACT

In order to examine the relationship between communication apprehension and listening ability, six hypotheses were tested experimentally using eight college public speaking classes. It was found that the elements of source-related apprehension and receiver-related (listener) apprehension function as separate elements. Listening comprehension was not affected by either source or receiver apprehension when the threat of subsequent oral performance was used as a threat. Listening comprehension scores were also not affected by an individual's mood state. Only prior training in speech might be a possible index of weaker listening ability, but that finding is tenuous at best. Overall, it appears that communication anxiety does not affect listening behavior in the college speech classroom.

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INTRODUCTION

While often neglected in traditional educational systems, listening is an important part of a person's ability to process information. Nowhere is one's capacity to hear and comprehend more critical than in the realm of formal education. Unfortunately, educators have tended to assume that listening ability was an offshoot of other language skills and little or no effort has been invested to study it as a trait which is unique as a communication skill. Nor has there been a widespread effort to teach listening as an important skill in the processing of information. Recent emphasis on communication competency, however, has sparked a new interest in the development of listening skills.

Listening has been determined to be an important variable in the acquisition and processing of information vital to the education and social development of the person. Research has firmly established that anything which impairs listening affects the individual's ability to function in society (Banville, 1978; Work, 1978).

Numerous factors abound which might influence the development of listening ability -- particularly in a classroom environment. To date, the element of communication apprehension, however, has not been considered in spite of the fact that it is a variable already proved to be linked to academic achievement and to problems affecting student learning (McCroskey and Anderson, 1976; Hurt, Preiss and Davis, 1976). Only recently has attention been focused on one's fear of communicating as it relates to decoding information.

Consequently, the study reported in this paper was designed to

examine the theoretical and empirical relationship between communication apprehension (CA) and listening comprehension. In particular, the dimensions of source apprehension (SA) and receiver apprehension (RA) will be investigated as they may interact with each other and as they may affect listening ability in the classroom student.

REVIEW OF RELEVANT LITERATURE

Listening Research

Recently educators have come to realize the interdependence of the so-called "language arts" and oral/aural communication skills (Rubin, 1982; Work, 1978). For example, the State of Florida has mandated an assessment and testing program to be used to determine if college students have acquired basic speaking and listening skills as part of overall communication competency in English.

In the past, unfortunately, school systems tended to emphasize reading and writing to the detriment of oral and aural processes (Nichols, 1961; Lundsteen, 1979). Speech-communication classes, now widely recommended by educators, still concentrate almost exclusively on speaking skills and give scant attention to listening (Nichols, 1961; Dixon, 1964; Drake, 1951; Steil, Barker and Watson, 1983). This is disconcerting when one realizes that listening consumes significantly more time than does speaking, reading or writing in a student's life (Disibio, 1982). McCormick (1981) reported that 57% of class time in elementary school, 53% in high school, and 70% of college class time was consumed by listening (p.37).

Nonetheless, there is little disagreement among teachers and psychologists about the importance of listening in both learning and communicating (Palmatier and McNicols, 1972). Lundsteen (1979) reported that listening is the first language skill to appear and that "listening is considered the first step in unlocking progress in any other area related to language -- which would include science, math, history, the whole of education" (xii). Lundsteen (1979) further stated that a "natural progression of instruction would be to teach thinking skills in an oral context before expecting thinking skills to serve children to their best advantage in reading and writing" (p. 61). Crowell and Hu-Pei Au (1982) supported this view by asserting that "children should develop a strategy for organizing and thinking about storing information received through auditory channels" (p. 31).

Research on listening goes back well over fifty years. Rankin's (1928) doctoral dissertation at the University of Michigan entitled "The Measurement of the Ability to Understand Spoken Language" appears to have been the first direct treatment of listening. Further research remained sporadic and relatively inconclusive until the 1950's and 1960's. During that period scholars produced the major portion of extant listening research. The most significant contribution -- to these authors anyway -- being the identification of listening as a trait separate from other verbal abilities (Biggs, 1956; Spearitt, 1962). The 1970's saw little activity and the concentration in the current decade has been on the measurement of listening as a skill related to communication competency (Pearson and Fielding, 1982).

Defining Listening

No simple or generally accepted definition has emerged from various research studies on listening (Devine, 1978, p. 297). The difficulty in defining it may lie in the lack of understanding the listening process itself (Bakan, 1966) or in the lack of knowledge of the components of the process (Petrie, 1966). As a result, a number of separate yet related definitions have been set forth.

Lundsteen (1979), taking into account the ambiguity of the term, defined listening as "the process by which spoken language is converted to meaning in the mind" (p. 1). Buttery (1980) also defined listening as the recognition and interpretation of auditory stimuli. He further indicated that listening was an "active cognitive process which requires conscious attention to sounds in order to gain significant meaning from them" (p. 181). Hollingsworth (1974), too, referred to listening as an active and alert process requiring the listener to decode many different meanings from syntactical arrangement of words, intonations and inflections in the speaker's voice and included the listener's experience with words as an important element in the process (p. 156).

Other definitions have focused on the distinction between hearing and listening (Clevenger and Matthews, 1971; Harwood, 1966). Barbara (1971), for example, stated that listening involved a "definite and usually voluntary effort to comprehend acoustically" (p. 160). Hearing, on the other hand, involved "mere reception of stimuli over auditory pathways" (p. 160). Nichols and Lewis (1954) offered a generally accepted definition of listening as a total process called aural assimilation. Hearing, the first phase of the process, is the perception of

sound by the ear only. Listening, the second phase, is the attachment of meaning to perceived aural symbols (p. 1).

Other researchers developed a model of listening which extended the phases of hearing and listening to include a third phase called auding (Disibio, 1982). Stammer (1971) described hearing as a non-attentive behavior and listening as an attentive behavior concentrated on processing sounds. Auding was then defined as the center of that process whereby sounds are processed for meaning (pp. 661-663). Berger and Werdmann (1978) further defined the phase of auding as the process of "listening to, recognizing and interpreting spoken symbols" (p. 37). Buttery (1980) also referred to auding as the process of organizing and analyzing what was heard (p. 183). The term auding, however, has not gained wide acceptance or use and the processes referred to are usually attributed to the listening phase (Lundsteen, 1979).

Several related factors include the "visual" factor as a component in listening. Brown (1949), for instance, defined listening as the "aural assimilation of spoken symbols in a face-to-face speaker audience situation" (p. 139). Henning (1977) also suggested a relationship between a speaker's motions and the listener's understanding of a message (p. 186). Petrie (1966), though, argued that visual behavior was a factor when the speaker was present, but that listening may go on in the absence of the physical presence of the speaker. Weaver and Rutherford (1974) reported the development of listening skills in both sighted and visually handicapped people seemed to progress at the same rate. Consequently, according to their interpretation, including a visual factor as a "necessary component of listening seems to unduly restrict the meaning of the term" (Petrie, 1966, p. 327).

Some investigators have been concerned with the components of effective listening. Fessenden (1955) reported seven levels of effective listening which ranged from the isolation of sounds and ideas involving no evaluation or analysis to the level of introspection requiring an analysis of the effect that having heard has on the individual (pp. 289-291). Strickland (1966) listed eight levels of listening developing from a basic level of little conscious listening to a level of true "meeting of minds" (pp. 42-43).

Nichols and Lewis (1954) listed ten components ranging from previous experience with the material to the reconciliation of thought-speed and speech-speed (pp. 11-25). Buttery (1980) also focused on the four components of attending behavior, hearing acuity, auditory discrimination and comprehension (or auding), all of which were considered necessary to the understanding of the listening process.

Nichols and Lewis (1954) claimed that different types of listening are identifiable and measurable; those types are appreciative, critical, and discriminative listening. McCaleb (1981) described them as informative, critical, and interpersonal (p. 62). Disibio (1982) listed four elements and categorized them as attentive, appreciative, analytical, and marginal types of listening (p. 218).

As this brief overview indicates, varying definitions imply many similar elements. Listening, in a broad sense, therefore, may best be defined in terms of the commonalities found among prior definitions. Listening, for us, is an active cognitive process of receiving, analyzing and attaching meaning to aural stimuli. The process includes a physical

hearing stage and may take place in or out of the presence of the speaker.

In many cases, the term comprehension has been applied to the primary area of interest in listening research. Nichols and Lewis (1954) stated that comprehension of instructive speech "is so basic that it is actually a controlling factor in both of the other kinds of performance" (pp. 1-2). Barbara (1971) also asserted that the "most essential factor contributing to the effectiveness of listening is comprehension, the understanding and grasp of the idea or meaning of what is heard" (p. 168).

Lundsteen (1979) posited that the distinction between comprehension and other types of listening in a testing situation is quite significant as only knowledge obtained as a result of listening to an oral test passage actually represents listening comprehension (p. 4). Assessment of other types such as critical or appreciative listening, though necessary and important components in a total definition, may be difficult to assess in a classroom situation. In light of the aims to this study, inclusion of more than comprehension may be unnecessary or misleading. Other types of listening may call for the integration of previous personal knowledge and require extrapolation beyond the given information (Buttery, 1980).

Listening Tests

The measurement of listening is difficult at best. The early listening tests were developed before clear theoretical or statistical evidence showed the specific skills involved in listening. The tests often lacked agreement on what trait or dimension of listening was being measured (Lundsteen, 1979). Kelly (1965; 1967) contended that existing tests measured some factors more reliably measured by established tests not involving listening. In particular,

the tests were criticized for measuring mental ability and reading skill rather than listening. Despite the controversy over what was being measured, scholars agree that listen can be measured (Backlund, Brown, Gurry, and Jandt, 1982).

After reviewing over seventy listening tests, Backlund et al (1982) recommended certain criteria for listening assessment instruments. First the stimulus material and test questions should be recorded to control for consistency of presentational style. The message should be given in a natural speaking voice (style) and not read. Second, the stimulus material should call for a single, minimal response with specific questions being the best. Test items should be read to students to minimize mediation by reading ability. Third, the stimulus materials, both messages and test items, should be short to reduce the influence of long-term auditory memory. They recommended a range of thirty seconds to three minutes. Fourth, it was recommended that the stimulus material be interesting; and, finally, that the vocabulary be controlled to minimize testing of verbal ability as separate from listening comprehension.

It should be noted, however, that no single instrument will give definite certification of the level of listening ability. With that caveat before us, we shall turn to a consideration of the anxiety about communicating which may affect listening ability.

Communication Apprehension

For over four decades scholars have focused attention on a person's fear or anxiety about communication and the impact of the fear on communication behavior (Lomas, 1934; Phillips, 1965; McCroskey, 1970). Research concerned with fear and anxiety about oral communication has been conducted under a number of labels including stage fright (Clevenger, 1959), reticence (Phillips,

1968), shyness (Zimbardo, 1977), unwillingness to communicate (Burgoon, 1976), and communication apprehension (McCroskey, 1970). The term communication apprehension, according to McCroskey (1977), "more broadly represents the total of the fears and anxieties studied previously" (p. 78) and the theory of communication apprehension (CA) integrates research conducted under other labels (p. 8).

The causes of CA are not known, but early research suggested that it may be developed during early childhood (Phillips and Butt, 1966; Wheelless, 1971). McCroskey (1982) suggested that a fuller understanding of the causes of CA might be found in the area of expectancy learning or learned helplessness. He explained that when individuals confront situations with no regular expectations of either positive or negative reinforcement, helplessness occurs. For example, a child rewarded for speaking out in a classroom discussion and punished for talking to another child may be unable to discriminate between the situations. If helplessness is learned, strong anxiety feelings will be experienced (p. 159).

Three main methods have been employed to measure CA: observer rating scales, devices for measuring physiological change, and self-report techniques. The self-report or introspective measure has been recommended for several reasons. It is easy to administer and is inexpensive. It is capable of tapping anxiety across a variety of communication contexts at one time. Its main advantage, though, lies in the fact that the individual's own report of his or her fear is more valid than any outside measure (Wheelless, 1975, p. 262).

Initial research in CA focused only on oral or source (sender) apprehension, probably as a result of the emphasis on speaking as a major communication skill (Wheelless, 1975). Over the past decade, however, the construct

of CA has been broadened to encompass a variety of modes of communicating (McCroskey, 1982). As a multidimensional construct, CA varies with the functional role of either the source (sender) or receiver (listener) in which an individual's communication is then occurring (Wheeless, 1975). Specifically, we may identify source apprehension (SA) and receiver apprehension (RA) as important elements in CA.

To date, the majority of apprehension literature is based on the study of source apprehension. The construct as defined by McCroskey (1977) is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (p. 78). Unacceptably high levels of SA have been found among student populations; approximately 20% of students in colleges and universities may be described as high level SA's (McCroskey, 1970). Similar numbers have been observed in public schools at all grade levels, as well as among adult populations (McCroskey, 1977).

The effects of SA are firmly established by research. Those who experience a high level of apprehension will withdraw from and seek to avoid communication whenever possible (McCroskey, 1977; McCroskey and Leppard, 1975). As a result of this, people who experience high levels of SA will be perceived less positively by others than those who experience low levels of SA (McCroskey and Richmond, 1976; McCroskey, Richmond, Daly and Cox, 1975).

In relation to the academic environment, the negative impact is clearly shown. Students with high SA have been found to have lower overall college grade point averages (McCroskey and Anderson, 1976), score lower on achievement on standardized tests (Bashore, 1971), receive lower grades in small classes in junior high school (Hurt, Preiss and Davis, 1976), and college (Scott and Wheeless, 1976). These findings are heightened by the fact that no meaningful relationship has been found between SA and intelligence (Davis, 1977).

Recognizing the importance of the receiver (listener) to communication transactions and working under the general construct of CA, Wheelless (1975) developed the theory of receiver apprehension (RA). It is conceptualized as "the fear of misinterpreting, inadequately processing, and/or not being able to adjust psychologically to messages sent by others" (p. 263). Based on Wheelless' assertion that RA deals in part with information processing, researchers have focused attention on this area of the construct. Beatty (1981), for instance, found that difficulty in information processing produced a backlog which resulted in anxiety which in turn produced an avoidance of reception of new messages. Beatty and Payne (1981) explored the relationship between RA and cognitive complexity and found them to be positively correlated.

The bulk of RA literature is based on tests of the impact of RA on learning. Wheelless and Scott(1977) found high level receiver apprehensives achieved lower academic progress across a number of criterion referenced indices. Later research on learning in a specific course revealed similar effects (Scott and Wheelless, 1977). Scott and Wheelless (1977) also found in an investigation of student attitudes and levels of satisfaction with different instructional strategies that high level RA's displayed less favorable attitudes toward lecture courses, oral assignments and in-class discussion.

Listening research, although not specifically concerned with RA, has focused attention on elements of listening behavior related to this construct. Barbara (1971) reported that listeners are often bombarded by more messages than can be effectively heard, and, therefore, have difficulty in comprehending them. The result is a faulty or disorganized communication system (p. 27). An overloading or jamming of the system may result in listening behavior designed to escape from the input overload (Taylor, 1964).

Research has also indicated that listeners under continual pressure or strain to digest all incoming messages are often tense and ill at ease (Barbara, 1971, p. 39). Nichols and Stevens (1957) reported that difficult listening created tension and, therefore, listeners tended to avoid difficult listening situations (pp. 107-108).

The anxiety or fear stemming from the listening situation may in turn result in inefficient listening. Johnson (1966) reported that poor listeners had to be taught first to relax before good listening skills could be taught (p. 36). Barbara (1971) also reported anxiety or fear to impact negatively on efficient learning (p. 91). As individuals with high levels of RA are characteristically anxious about receiving messages, RA and listening ability seem to be negatively correlated.

RATIONALE AND HYPOTHESES

While the construct of receiver apprehension relates to the decoder or listener function in communication, no study of the relationship of RA and listening has been published to date. Research by Beatty (1981) suggests that RA is a function of unassimilated information due to processing difficulties. This finding is consistent with Wheelless' (1975) assertion that RA deals with the fear of processing information and adjusting to messages sent by others (p. 263). Further, Beatty and Payne (1981) asserted that the information processing ability of an individual as shown by a cognitive complexity measure was related to the construct of RA.

Listening scholars have also pointed to an overload or jamming of the communication system due to the intensity of incoming stimuli which resulted in poor listening behavior (Fessenden, 1955; Taylor, 1964). The anxiety or tension concerning communication and the withdrawal from or avoidance of communication situations characteristic of apprehensives have also been reported in listening literature (Nichols and Lewis, 1954; Tutolo, 1977).

Barbara (1971), in particular, discussed the effect of anxiety about receiving messages on listening behavior and reported a curtailing of "social contact" with others to avoid listening situations (p. 129).

The effect of source apprehension has also been ignored by communication scholars in terms of its effect on listening behavior. Though possibly not as obviously linked to listening as is RA, a potential connection between SA and receiving messages was reported by Beatty, Behnke and McCallum (1978). They found that subjects anticipating hearing a lecture reported lower levels of SA than did those anticipating a speech performance. Johnson (1966) found that tense or anxious individuals did not listen as well as those who were calm and relaxed.

Any measure which might stimulate anxiety or fear, then, would appear to impact on listening behavior. Barbara (1971), for example, indicated that those listeners forced to respond orally rather than be allowed to receive messages passively became anxious and restless and exhibited poor listening behavior (pp. 64-65).

The study reported in this paper was designed to examine the relationships between communication apprehension and listening behavior. The constructs of SA and RA were studied to determine the impact of each on listening comprehension.

While the literature in both apprehension and listening indicated that the variables of age, sex, intelligence and educational level have little or no impact on measures of RA, SA or listening comprehension, the variable of mood state might have some impact on scores on a listening test. Nichols and Lewis (1954) reported that an individual's mental set will override other factors in determining listening behavior. Other researchers have focused on the difficulty of maintaining attention and concentration in a listening

situation. The difficulty may lie in part with the mood or emotional state of the person at a particular time (Kelly, 1965; Lundsteen, 1979). The mood of the individual may be an intervening variable in the measure of listening and was included in the study.

Based on a review of the relevant literature, the following definitions were employed:

1. Source Apprehension was operationally defined as an individual's score on the Personal Report of Communication Apprehension test (PRCA).
2. Receiver Apprehension was operationally defined as an individual's score on the Receiver Apprehension test (RAT).
3. Mood State was operationally defined as an individual's scores on the Profile of Mood States test (POMS).
4. Listening Comprehension was operationally defined as an individual's score on the STEP Listening Test.
5. "Threat" was defined as an experimental condition under which an individual anticipated an oral performance at the conclusion of a listening test.
6. "Non-threat" was defined as an experimental condition under which an individual had no anticipation of an oral performance at the completion of a listening test.
7. "Message" was defined as a set of test passages from the STEP as recorded on audio tape by a professional speaker.

There were a total of six hypotheses tested in this study:

- Hypothesis 1: Subjects' scores on receiver apprehension and source apprehension tests will be positively related.
- Hypothesis 2: Subjects' listening comprehension scores will be negatively related with receiver apprehension scores.
- Hypothesis 3: Subjects' listening comprehension scores will be negatively related to source apprehension scores.
- Hypothesis 4: Subjects' listening comprehension scores will be negatively related with mood scores.

Hypothesis 5: Subjects who have higher degrees of receiver apprehension will have lower listening comprehension scores than subjects who have lower degrees of receiver apprehension in a threat condition.

Hypothesis 6: Subjects who have higher degrees of source apprehension will have lower listening comprehension scores than subjects who have lower degrees of source apprehension in a threat condition.

RESEARCH DESIGN

In order to balance the need for maximum realism in research with the need for optimal experimenter control (Miller and Fouts, 1979), the study was conducted as a part of normal classroom instructional procedure in regular, in-tact classes. Eight public speaking classes at the University of Florida during the 1983 Fall semester were randomly chosen for the experiment. Administration of the PRCA and RAT tests were incorporated into an initial unit dealing with apprehension. The listening test was administered as part of a unit concerning listening behavior.

Two sets of tape recorded messages (taken from the 1979 version of the STEP listening test) each made up of three discrete passages were given to groups of subjects in one of the following orders with message order (A/B) and test condition (threat/non-threat) systematically varied:

Condition 1:	<u>Threat</u> - Part I Message A	<u>Non-threat</u> - Part II Message B
Condition 2:	<u>Threat</u> - Part I Message B	<u>Non-threat</u> - Part II Message A
Condition 3:	<u>Non-threat</u> - Part I Message A	<u>Threat</u> - Part II Message B
Condition 4:	<u>Non-threat</u> - Part I Message B	<u>Threat</u> - Part II Message A
Condition 5:	<u>Threat</u> - Part I Message A	<u>Threat</u> - Part II Message B

Condition 6:	<u>Threat - Part I</u> Message B	<u>Threat - Part II</u> Message A
Condition 7:	<u>Non-threat - Part I</u> Message A	<u>Non-threat - Part II</u> Message B
Condition 8:	<u>Non-threat - Part I</u> Message B	<u>Non-threat - Part II</u> Message A

This design controls for order effect of test condition. Additionally, though the message units in the STEP test have been found to be equivalent, the design allows for any possible variation in consistency or difficulty of those messages. The design also permits each subject to be employed as his/her own control.

Of 215 college student volunteers enrolled in the UF speech courses, 167 actually were considered in the analysis with an average of 21 students in each of the eight classes.

MATERIALS

In this study two highly regarded self-report measures of communication apprehension were used:

Personal Report of Communication Apprehension (PRCA). This is a Likert-type self-report instrument first developed by McCrosky in 1970. It consists of 20 statements designed to measure source apprehension (SA) and is widely accepted as valid and reliable.

Receiver Apprehension Test (RAT). The only prominent self-report measure of receiver-bound anxiety (RA), the RAT was developed by Wheelless in 1975 and is also a Likert-type scale consisting of 20 items which tap how a person feels when listening. Research by Beatty, Behnke and Henderson (1980) has documented the validity of the RAT, and its reliability estimates range from .80 to .86 (Beatty and Payne, 1981).

Profile of Mood States (POMS). The POMS is a rapid, economical method of assessing an individual's mood state. It consists of 65 five-point adjective rating scales measuring six mood states. A total score yields a single global estimate of affective state (McNair, Lorr and Droppleman, 1981). Test-retest reliability for the factors range from .61 to .69 (McNair and Lorr, 1964), and internal consistency of the factors were reported to be near .90 or above.

Sequential Test of Educational Progress - Listening (STEP). The 1979 STEP, prepared by the Educational Testing Service and published by McGraw Hill (and used with permission) is widely accepted as a reliable measuring instrument of listening comprehension and has been used in a number of listening studies (McCaleb, 1981).

Audio Tape. In keeping with recommendations of Backland et al. (1982), the stimulus material and test items of the STEP were recorded on audio tape. A trained female speaker delivered all instructions, stimulus passages and test items.

The tapes were reviewed by speech professionals for quality and consistency of presentation. The audio quality of the tapes was judged to be less than 100% by professional audio engineering standards, but the tapes were considered to be of adequate quality for use in the experiment. The quality of the speaker's presentation was determined to be excellent, consistent in both rate and variety for all messages.

Post-experimental Questionnaire. A questionnaire compiled by the investigators sought to assess the subjects' prior training in speech, as well as any work in reducing apprehension. The inventory also determined if any subject had a hearing loss or any other relevant disability. Subjects also indicated if English was their first language.

PROCEDURE

During the second week of the 1983 Fall semester, speech instructors distributed both the PRCA and RAT tests to their public speaking students. Students were told that they were going to participate in a survey designed to discover how people perceived personal communication. They were asked to identify themselves only through their social security numbers, and they were told that all information was confidential.

The experimental phase of the study was conducted on two consecutive days of the following (third) week. It was carried out during regular class times in the regular classrooms of the eight groups.

On the day of the experiment, each instructor informed the class that, in keeping with the importance of listening to communication, an assessment of listening comprehension would be done during that class period. Once again students were told to use only social security numbers for identification, and that all information collected was to be kept in confidence and that it would have no bearing on class grades.

The instructor then introduced the researcher (Ms. Paschall) as a specialist in listening assessment. The researcher then presented an explanation of the experiment to each class. Ms. Paschall conducted all eight tests; each group was given the same information in the same time frame and informational style. Subjects were told that the data being collected was on listening comprehension, but that they were under no obligation to participate and could leave at any time. All students wishing to participate were asked to read and sign an "informed consent" statement. The only aspect of the study that students were not (initially) informed about concerned the threat/non-threat element in the design.

Subjects then were asked to complete the POMS test. This task took no more than a maximum of ten minutes. After all subjects completed and returned the POMS, a sample form of the listening test was passed out by the researcher and instructions were given on the proper way to complete the form.

A sample passage was presented from the tape recorder, and students were asked if they could hear adequately and if they had any things they wanted to ask. Subjects were then told that from then on all information would come from the tape recorder only and no communication with her would be permitted.

The tape was then played through Part One. Subjects under the Non-threat-Threat condition heard directions for written responses to test passages in only Part One of the test. Instructions for Part Two informed them that following the written test, individual students would be called upon orally to answer questions and/or summarize test passages in an impromptu speech. Test passages and questions were then read. The researcher turned off the tape recorder and collected answer sheets. A series of questions was asked or randomly chosen students; one student was chosen to deliver an impromptu speech. The oral response session took no more than five minutes.

Students in the Treat-Non-threat condition heard directions for Part One which called for oral responses to questions and/or a summary of test passages in an impromptu speech after the completion of the test questions. The same procedure was followed as in Part Two of the session described above. In Part Two of this condition, students were told that only a written response was required. Upon completion, the tape was stopped and the forms were collected.

Students in the Threat-Threat condition were informed that oral responses were required after Part One. Again, prior to the beginning of Part Two, they were told that oral questions and a summary speech were to be solicited.

Those subjects in the Non-threat-Non-threat condition were only informed of general directions for written responses for Part One. No mention of an oral response was made. After forms had been collected, the same instructions were given for Part Two.

After completing Part Two subjects in all eight classes were asked to complete the post-experimental questionnaire. They were then debriefed and again assured that their scores were to be kept in confidence. It was made sure by the researcher that all participants knew the full nature of the study and the experimental threat/non-threat manipulation.

RESULTS & ANALYSIS

The research hypotheses were tested by using a number of procedures from the Statistical Analysis System (SAS, 1982). Independent variables were 1) levels of SA, 2) levels of RA, and 3) test condition. Listening comprehension scores served as the dependent variable. Mood score was considered to be a covariate. All probability levels were set at .05.

The first hypothesis concerned the relationship between RA and SA:

Subjects' scores on receiver apprehension and source apprehension will be positively related.

Using the SAS correlation procedure, it was found that RA and SA were not significantly related. The statistical null hypothesis could not be rejected. RA and SA would seem to be independent and function as separate constructs. The presence or absence of one does not appear to affect levels of the other.

The second hypothesis concerned the effect of RA on listening comprehension:

Subjects' listening comprehension scores will be negatively related with receiver apprehension scores.

By using a partial correlation (with the total mood score as a covariate), levels of RA were not significantly correlated with listening comprehension. Again, the null hypothesis can not be rejected.

Hypothesis number three tested the effect of SA on listening comprehension scores:

Subjects' listening comprehension scores will be negatively related to source apprehension scores.

Again, a partial correlation with total mood score as a covariate was employed to test this hypothesis. Levels of SA were not significantly correlated with listening comprehension. This null hypothesis also can not be rejected.

The fourth hypothesis concerned the effect of mood scores on subjects' listening comprehension ability:

Subjects' listening comprehension scores will be negatively related with mood scores.

A "procedure correlation" (PROC CORR) indicated that neither total mood scores nor individual mood scores were significantly correlated with listening comprehension scores. The null hypothesis can not be rejected.

Hypothesis number five tested the effect of RA on listening comprehension in a threat condition:

Subjects who have higher degrees of receiver apprehension will have lower listening comprehension scores than subjects who have lower degrees of receiver apprehension in a threat condition.

First, a two-factor analysis of variance with repeated measures and with a covariate of RA was conducted. The level of RA accounted for a statistically insignificant amount of variance in the dependent variable of listening comprehension. The null hypothesis can not be rejected.

Similarly, the sixth hypothesis concerned the effect of SA on listening comprehension scores in a threat condition:

Subjects who have higher degrees of source apprehension will have lower listening comprehension scores than subjects who have lower degrees of source apprehension in a threat condition.

Once more, an analysis of variance with repeated measures using SA as the

covariate was employed to test this hypothesis. The level of SA did not account for a statistically significant amount of variance on the dependent variable of listening comprehension. This null hypothesis could not be rejected.

In order to consider the effect of speech training on listening comprehension scores as well as the interaction with SA and RA under test conditions, a four factor analysis of variance was conducted. RA and SA scores were grouped as either high, medium or low. Using this procedure with a probability level of .05, neither the level of RA or SA or test condition accounted for a statistically significant amount of variance on the dependent variable of listening comprehension when adjusting for the effect of mood score. Subjects' speech training, or lack thereof, did appear to affect listening scores.

Consequently, a Proc Means procedure was conducted; because of the uneven number of subjects in the groups, a transformation on the numbers was necessary in order to complete the analysis. The final adjusted mean scores indicated a difference between the two means with the mean for non-speech training being somewhat higher. However, because of the nature of the data and uneven subject numbers, the two means can not be said to be significantly difference. Therefore, subjects with no prior speech training can not be said to be better listeners.

SUMMARY & IMPLICATIONS

In this experiment RA and SA were not shown to be related to each other. As well, neither of them were proven to have an effect on students' listening comprehension, nor were threat or non/threat conditions significant factors in determining listening scores. Individual mood scores and total mood scores were apparently not related to listening scores and did not account for any differences in this study.

Only the "outside" factor of prior speech training might have had some relationship with listening scores, but an in-depth analysis merely indicated

a slight difference in the scores of the "trained" versus the "untrained" subjects and, consequently, can not be interpreted as a significant factor in predicting listening ability.

Overall, this study may have raised more questions than it actually answered. For instance, are there constraints operating in a classroom which might preclude measuring any type of apprehension and its impact on listening. Such situational variables might need to be identified and controlled in order to get at the basic relationship. Also, the question of the reality of the classroom as an arena to test listening comes into focus. It may be that even listening for comprehension is more of an "active" than a "passive" process and that one must be in some sort of transactional mode in order to observe and measure it. And, of course, there are many other questions which might be raised.

The one, important finding from this particular investigation appears to be that source-related apprehension is, in fact, discrete from receiver-related apprehension. If it is true that neither of them act as "filters" -- in the classroom at least -- then we may proceed to look at other factors which might have some influence on one's capacity to listen and to effectively process information.

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KATIE PASCHALL (M.A. Murray State University) is completing her doctoral program in Speech at the University of Florida in Gainesville, Florida. This study is part of her dissertation research, and was supervised by ANTHONY J. CLARK (Ph.D. University of Denver) who is an Associate Professor. Dr. Clark is a member of a state task force on speaking and listening, and is currently working on a research program to create and validate a listening test which could be used as part of the state-wide communication competency exam taken by all college sophomores.

- Biggs, B.P. Construction, validation and evaluation of a diagnostic test of listening effectiveness. Speech Monographs, 1956, 23, 9-13.
- Brown, C.T. Three studies of the listening of children. Speech Monographs, 1965, 32, 129-138.
- Brown, J.I. The construction of a diagnostic test of listening comprehension. Journal of Experimental Education, 1949, 18, 139-146.
- Brown, J.I. Establishing the validity of a listening test. In S. Duker (Ed.), Listening: Readings, New York: Scarecrow Press, 1966.
- Burgoon, J.K. The unwillingness-to-communicate scale: Development and validation. Communication Monographs, 1976, 43, 60-69.
- Buttery, T.J. Listening: A skill analysis. Education, 1980, 101, 181-187.
- Clevenger, Jr., T. A synthesis of experimental research in stage fright. Quarterly Journal of Speech, 1959, 45, 134-145.
- Clevenger, Jr., T. & Matthews, J. The speech communication process. Glenn View, Ill.: Scott, Foresman & Co., 1971.
- Crowell, D. & Hu-pei Au, K. Developing children's comprehension in listening, reading and television viewing. Elementary School Journal, 1981, 82, 129-135.
- Daly, J.A. The assessment of social-communicative anxiety via self-reports. A comparison of measures. Communication Monographs, 1978, 45, 204-218.
- Daly, J.A. Communication apprehension and behavior: Applying a multiple act criteria. Human Communication Research, 1978, 4, 208-216.
- Davis, G.F. Communication, intelligence and achievement among secondary school students. Unpublished Masters Thesis. West Virginia University, 1977.
- Devine, T.G. Reading and listening: new research findings. Elementary English, 1968, 45, 346-348.
- Dickson, P.W. & Patterson, J.H. Evaluating referential communication games for teaching speaking and listening skills. Communication Education, 1981, 30, 11-21.

- Disibio, R.A. Listening . . . The neglected art? Reading Improvement, 1982, 19, 217-218.
- Dixon, N.R. Listening: Most neglected of the language arts. Elementary English, 1964, 41, 285-288.
- Drake, F.E. How do you teach listening? Southern Speech Journal, 1961, 16, 118-124.
- Fessenden, S.A. Levels of listening--a theory. Education, 1955, 75, 288-291.
- Freimuth, V.S. The effects of communication apprehension on communication effectiveness. Human Communication Research, 1976, 2, 289-298.
- Harwood, K.A. A concept of listenability. In S. Duker (Ed.), Listening: Readings. New York: Scarecrow Press, 1966.
- Hollingsworth, P.M. Let's improve listening skills. Elementary English, 1974, 51, 1156-1157, 1161.
- Hurt, T., Preiss, R. & Davis, B. The effects of communication apprehension of middle-school children on sociometric choice, affective and cognitive learning. Paper presented at the annual meeting of the International Communication Association, Portland, Ore., 1976.
- Johnson, W. Do you know how to listen? In S. Duker (Ed.), Listening: Readings. New York: Scarecrow Press, 1966.
- Keller, P.W. Major findings in listening in the past ten years. Journal of Communication, 1960, 10, 29-38.
- Kelly, C.M. An investigation of the construct validity of two commercially published listening tests. Speech Monographs, 1965, 32, 139-143.
- Kelly, C.M. Listening: A complex of activities--and a unitary skill? Speech Monographs, 1967, 34, 455-466.
- Landry, D.L. The neglect of listening. Listening and speaking. New York: McMillan Co., 1971.
- Lomas, C.W. A study of stage fright as measured by reactions to the speaking situation. Masters Thesis. Northwestern University, 1934.
- Lorr, M., Daston, P. & Smith, I.R. An analysis of mood state. Educational and Psychological Measurement, 1967, 27, 89-96.

- Lundsteen, S.W. Listening: It's impact on reading and the other language arts. Urbana, Ill.: National Council of Teachers of English, 1971.
- Lundsteen, S.W. Listening: It's impact at all levels on reading and other language arts. Urbana, Ill.: National Council of Teachers of English, 1979.
- McCaleb, J.L. Indirect teaching and listening. Education, 1981, 102, 159-164.
- McCormick, K. Good listening skills help kids learn. American School Board Journal, 1981, 168, 37, 42.
- McCroskey, J.C. Measures of communication--bound anxiety. Speech Monographs, 1970, 37, 269-277.
- McCroskey, J.C. Oral communication apprehension: A reconceptualization. In Burgoon (Ed.) Communication Yearbook VI. New Brunswick: Transaction Books, 1982.
- McCroskey, J.C. Oral communication apprehension: A summary of recent theory and research. Human Communication Research, 1977, 4, 78-96.
- McCroskey, J.C. Validity of the PRCA as an index of oral communication apprehension. Communication Monographs, 1978, 45, 192-203.
- McCroskey, J.C. & Anderson, J.F. The relationship between communication apprehension and academic achievement among college students. Human Communication Research, 1976, 3, 73-81.
- McCroskey, J.C. & Leppard, T. The affects of communication apprehension on nonverbal behavior. Paper presented to the Eastern Communication Association Convention, New York, 1975.
- McCroskey, J.C. & Richmond, V.P. The effects of CA on the perception of peers. Western Speech Communication, 1976, 40, 14-21.
- McCroskey, J.C., Richmond, V.P., Daly, J.A. & Cox, B.G. The effects of CA on interpersonal attraction. Human Communication Research, 1975, 2, 51-65.
- McDowell, E.E. & McDowell, C.E. An investigation of source and receiver apprehension at the junior high, senior high and college levels. Central States Speech Journal, 1978, 29, 11-19.

- McNair, D.M. & Lorr, M. An analysis of mood in neurotics. Journal of Abnormal and Social Psychology, 1964, 69, 620-627.
- McNair, D.M., Lorr, M. & Dropplemann, L.F. Profile of Mood States. San Diego: Educational and Industrial Testing Service, 1981.
- Nichols, R. Do we know how to listen? Practical helps in a modern age. Speech Teacher, 1961, 10, 118-124.
- Nichols, R. Factors in listening comprehension. Speech Monographs, 1948, 15, 154-163.
- Nichols, R. & Lewis, T. Listening and Speaking. Dubuque, Iowa: Wm. C. Brown, Co., 1954.
- Nichols, R. & Stevens, L. Are you listening? New York: McGraw-Hill, 1957.
- Pearson, D.P. & Fielding, L. Research update: Listening comprehension. Language Arts, 1982, 59, 617-29.
- Petrie, C.R. & Carrel, S.D. The relationship of motivation, listening capability, initial information and verbal organizational ability to lecture comprehension and retention. Communication Monographs, 1976, 43, 187-194.
- Phillips, G.M. The problem of reticence. Pennsylvania Speech Annual, 1965, 22, 22-38.
- Phillips, G.M. Reticence: Pathology of the normal speaker. Speech Monographs, 1968, 35, 39-49.
- Rankin, P.T. The importance of listening ability. English Journal, 1928, 17, 623-630.
- Rubin, D.L., Daly, J., McCroskey, J.C. & Mead, N.A. A review and critique of procedures for assessing speaking and listening skills among pre-school through grade twelve students. Communication Education, 1982, 31, 285-303.
- Rossiter, C.M. Sex of the speaker, sex of the listener and listening comprehension. Journal of Communication, 1972, 22, 64-69.
- Scott, M.D. & Wheelless, L.R. Communication apprehension, student attitudes and levels of satisfaction. Western Journal of Speech Communication, 1977, 41, 188-198.
- Spearritt, D. Listening comprehension: A factorial analysis. Melbourne, Victoria: Australian Council for Educational Research, 1962.

- Strickland, R. The language arts in the elementary school.
2nd ed. Boston: D.C. Heath & Co., 1966.
- Taylor, S.E. Listening: What research says to the teacher.
Washington: National Education Association, 1964.
- Tuman, M.C. A comparative review of reading and listening
comprehension. Journal of Reading, 1980, 23, 698-704.
- Tutolo, D.J. A cognitive approach to teaching listening.
Language Arts, 1977, 54, 262-265.
- Walker, L. Comprehension of writing and spontaneous
speech. Visible Language, 1977, 11,
- Wheless, L.R. An investigation of receiver apprehension
and social context dimensions of communication apprehension.
Speech Teacher, 1975, 24, 261-268.
- Wheless, L.R. & Scott, M.D. The nature, measurement and
potential effects of receiver apprehension. Paper presented at the annual meeting of the International
Communication Association, Portland, Ore., 1976.
- Wheless, L.R. & Scott, M.D. The relationship of three types
of communication apprehension to classroom achievement.
Southern Speech Communication Journal, 1977, 42,
246-255.
- Work, W. Listen, my children Communication Education, 1978, 27, 146-152.
- Wright, T.H. Learning to listen: A teacher's or a student's
problem? Phi Delta Kappan, 1971, 52, 625-628.
- Zimbardo, P.G. Shyness. Reading, Mass.: Addison-Wesley,
1977.