To the Graduate Council

I am submitting herewith a dissertation written by Donald Lynn Harville entitled "A Model of Communication Apprehension, Job Level Held, Communication Requirements of the Job, Job Satisfaction, and Career Change Activities." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Industrial and Organizational Psychology.

Robert T. Ladd, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

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A MODEL OF COMMUNICATION APPREHENSION, JOB LEVEL HELD, COMMUNICATION REQUIREMENTS OF THE JOB, JOB SATISFACTION, AND CAREER CHANGE ACTIVITIES

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ABSTRACT

The literature on communication apprehension (CA) was shown to be relevant to occupational type behaviors. Super's self-concept implementation theory (Super, 1951, 1953) previously has asserted that job satisfaction is related to the degree to which the job and the individual are compatible. In order to examine the occupational behavior of individuals as a function of their CA, a model of CA, job level held, communication requirements of the job, job satisfaction, and career change activities was developed. A total of 601 employees who had attended a Career Planning Workshop were sent a questionnaire designed, among other things, to investigate the model. Eleven out of the 14 correlational main effects proposed by the model were significant and in the proposed direction. The interaction of CA and communication requirements was significantly related to three of the five job satisfaction scales. All but one of the relevant LISREL path weights were significant and in the expected direction. Implications for practice and for theory were discussed, along with areas that need more research.

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INTRODUCTION

Communication skills are highly valued in the American culture, partly because the majority of high-status and high-income jobs require effective communication skills. However, communication apprehension (CA) is a fear that interferes with an individual's communications and presumably with her/his ability to obtain and keep high-status and high-income jobs. Individuals with a high degree of CA (high apprehensives) typically use communication avoidance, communication withdrawal, and communication disruption to minimize their communications output. However, some high apprehensives exhibit overcommunication to compensate for their CA (McCroskey, 1982a). Resources organizations spend to enhance the communication skills of high apprehensive employees, do not generally produce more effective communication (Scott, McCroskey, & Sheahan, 1978).

From 1970 to 1980 communication apprehension was perhaps the most often researched topic in the field of communication. During this time over 200 studies on CA were reported in the literature (McCroskey, 1982a). McCroskey (1977b) even went as far as to state that CA is the most pervasive communication problem in contemporary society and that there is clear support for the

proposition that high CA has a negative impact on an individual's economic, academic, political, and social life. Unfortunately, neither the CA research nor its implications have been discussed much in the psychology, management, or organizational behavior literatures.

Occupations vary greatly in how much they require employees to interact with others or to speak in front of groups. Very little research has been reported on the occupational behavior of high and low communication apprehensives in on-going organizational settings.

> Industrial-organizational psychologists might do well to study the relationship between dispositional social anxiousness [CA] and satisfaction and performance in jobs that require a high level of interaction with others (Leary, 1983, pp. 144-145).

In the present research a model of communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities was developed. The results of the present research were hypothesized as related to the main effect of the employees' job level and the main or interactive effects of their communication apprehension and the communication requirements of their jobs.

I. INTRODUCTION TO COMMUNICATION APPREHENSION

Definitions

The most often cited definitions of communication apprehension (CA) over the past decade and a half have been provided by James C. McCroskey, the leading researcher in CA as well as the originator of the term "communication apprehension." McCroskey (1970) developed the construct of CA to explain problems in speech communication that result from inhibitions rather than from inability to communicate. He defined CA as "a broadly based anxiety related to oral communication rather than a variety of types of communication bound anxiety" (McCroskey, 1970, p. 270). Earlier work in the areas of stage fright and reticence were the foundations upon which the construct of CA was developed. Since 1970 McCroskey and others have broadened the construct of CA. CA originally was restricted to oral communication, but now it includes all modes of communication, by including writing and singing (McCroskey, 1982a).

McCroskey, Daly, Richmond, and Cox (1975) redefined CA as "a broad-based personality-type characteristic that is characterized by withdrawal from and avoidance of communication, as well as feelings of discomfort and tension while communicating" (p. 51-52). Thus for high

communication apprehensives the fear of communicating surpasses any rewards expected from speaking, and they speak only when necessary (Klopf & Cambra, 1979b). McCroskey (1977a) wrote that CA "refers to an anxiety syndrome associated with either real or anticipated communication with another person or persons" (p. 27-28). In the most recent conceptualization, CA:

> is viewed as a person's level of fear or anxiety associated with any form of communication with other people, experienced either as a traitlike, personality-type response or as a response to the situational constraints of a given communication transaction (McCroskey, 1982a, p. 139).

Consequences of Communication Apprehension

The communication apprehension literature is now comprehensive enough to allow for generalizations about the behavioral and attitudinal consequences of CA. High communication apprehensives can generally be described as introverts who: 1) lack self-esteem and are resistant to change, 2) have a low tolerance for ambiguity, and 3) lack self-control and emotional maturity. Generally low communication apprehensives are adventurous, extraverted, confident, and emotionally mature individuals with high self-esteem. Low apprehensives are also tolerant of

ambiguity, and willing or even eager to accept changes in their environments (McCroskey, 1982a).

Even though being called upon to give a speech is an infrequent occurrence for most adults, public speaking is the most frequently reported fear among American adults (Bruskin Associates, 1973). Mulac and Sherman (1974) noted that the observable aspects of speech anxiety affect the verbal fluency, voice, facial expressions, arms and hands, and the body of the speaker. Anxious speakers tend to stutter, hunt for words, have speech blocks, and have vocalized pauses such as saying "ah" and "um." The voices of anxious speakers may be quivering, tense, monotonous, or their speech may be too fast or too slow. Lack of eye contact, peculiar eye movements, grimaces, twitches, or deadpan expressions may be the facial expressions of an anxious speaker. The arms and hands of anxious speakers may be rigid, tense, fidgety, motionless, or lack appropriate gestures. Swaying, pacing, and shuffling feet may be the bodily manifestations of speech anxiety (Mulac & Sherman, 1974).

When giving a speech is required, many individuals worry, try to avoid it, or even become sick! McCroskey (1977b) reported observing:

> several students fainting while giving a speech, dozens of students who "disappeared" when the first speech was due, similar dozens who cowered in the back of the room when called on, claiming not to be "ready", absences on days when speeches were due that were too numerous to count, instances of students vomiting when called on to speak, and even one attempted suicide allegedly brought on by fear of a speech due the next morning (p. 90-91).

Lederman (1983) interviewed individuals suffering from high CA to assess their feelings and behaviors. The sample was 20 college students with high scores on the Personal Report of Communication Apprehension- College (an instrument reported by McCroskey in 1970 to measure CA in college student populations), who agreed to participate in a small group discussion. These high CA interviewees indicated that talking for them was not a pleasurable activity and that they talked only when they had something to say and not just for the sake of doing so. They indicated that they experienced fear when they talked and that they admired people who seemed to verbalize easily, but that they did not like individuals who appeared to talk just for the sake of doing so. These students reported that when they were being quiet they were not speaking because of their fear or discomfort interfering with their ability to speak. Listening as opposed to being quiet they saw as a pleasurable rather than as a

fear-related feeling. However, they viewed their preference for listening as a weakness. Silent behavior to them meant being overpowered by others, and they reported that they were silent when they felt fear or discomfort about talking (Lederman, 1983).

McCroskey, Daly, and Sorensen (1976) studied the relationships between CA and various personality measures, including the 16PF. They concluded that high communication apprehensives are likely to have many of the following negative tendencies:

> Aloof, prefers working alone, rigid, has hard time expressing self, quiet, reserved, stiff, changeable, dissatisfied, easily annoyed, strongly influenced by emotions, lacks leadership, a follower, submissive, conforming, obedient, serious, reflective, slow, cautious, silent, seeks low interaction occupations, undependable, irresolute, lacks internal standards, low task orientation, withdrawn, has feelings of inferiority, rulebound, restrained, avoids people, free of jealousy, concerned about others, good team worker, pliant, permissive, worrier, moody, avoids participation in groups, dislikes interaction, likes quiet environment, shy, ineffective speaker, little success in groups, lacks self-control, inconsiderate, unconscientious, indecisive, tense, restless, impatient, frustrated, low morale, closed minded, amoral orientation to life, manipulative, low tolerance for ambiguous or uncertain situations, low need to achieve, and sees external forces as controlling her or his life (McCroskey et al., 1976, p. 378).

Low communication apprehensives were likely to have many of the following positive tendencies:

> High interactor, joiner, seeks high communication occupations, stable, calm, integrated philosophy of life, mature, a leader, independent, self-assured, assertive, competitive, cheerful, expressive, talkative, responsible, determined, high moral standards, innovative, sociable, many emotional responses, enjoys people, thick-skinned, impulsive, distrustful, ego-involved, self-opinionated, resilent, secure, able to cope, self-confident, strong control, self-respect, chosen for leadership, objective, balanced, decisive, calm, relaxed, composed, high morale, open minded, not manipulative, tolerant of ambiguous or uncertain situations, high need to achieve, and sees self in control of her or his own life (McCroskey et al., 1976, p. 378-379).

It would be highly unlikely for any single individual to fit completely any of the above descriptions. However, high communication apprehensives are withdrawn and socially maladaptive, with little chance for success in the modern world, and vice versa for low communication apprehensives (McCroskey et al., 1976).

There are also physiological correlates to CA. The physiological reactions to CA are the same as in all fear and involve sweating, rapid breathing, elevated blood pressure, and a pounding heart. These reactions are due to activation of the sympathetic division of the autonomic nervous system (Behnke & Carlile, 1971).

Oral CA can also carry over into the domain of written communication. Burgoon and Hale (1983) examined the effects of different communication reticence constructs (including CA), on written messages produced under relatively nonthreatening circumstances. Those messages were designed to elicit typical communication patterns in the subjects. Subjects with high oral CA displayed less intense writing. Intensity here refers to the degree to which evaluative language, such as adverbs and adjectives, deviated from neutrality. High oral communication apprehensives also had a greater productivity in terms of the number of sentences produced, used a more varied vocabulary, and used more complex language by using more multisyllabic words. Because of the above effects, the written messages produced by the high oral apprehensives were more difficult to understand than those produced by the low apprehensives (Burgoon & Hale, 1983).

Communication Apprehension and Intelligence

Could differences in intelligence as a function of communication apprehension explain some of the previously mentioned findings? Gilkinson (1942) found no relationship between the fear scores of students in a college speech class and intellectual ability as indicated

by high school grades and intelligence test scores. Low and Sheets (1951) also found no significant differences between students with the most stage fright and those with the least stage fright in general intelligence and quantitative reasoning ability.

Using a sample of high school students, Davis and Scott (1978) reported that levels of CA and intelligence were negatively related. Low apprehensives in this study had significantly higher IQ scores than moderate and high apprehensives. Even though CA and intelligence were significantly correlated they shared little variance. Intelligence was far more substantially associated with achievement than it was with CA. These results were explained by noting that high communication apprehensives have a consistent pattern of communication avoidance or withdrawal from situations where communication is likely to occur. This behavior could severely limit the exposure of high communication apprehensives to environmental information. For high apprehensives the low exposure could negatively affect the development of their verbal abilities or crystallized intelligence, but not their fluid intelligence (Cattell, 1971). Thus, the less than optimal verbal proficiency of high apprehensives could explain their lower IQ scores. Using similar reasoning as

CA decreases, the students would be expected to have an increased exposure to their environment, increased verbal ability, and higher IQ scores (Davis & Scott, 1978).

How Normal is Communication Apprehension?

In a nationwide survey of American adults (N=2543), Bruskin Associates (1973) found that the most frequently reported fear was that of public speaking. This fear, reported by 40.6% of the respondents, was found to be more common than fear of death (18.7%), fear of heights (32.0%), or fear of water (21.5%) (Bruskin Associates, 1973).

The communication apprehension literature classifies CA into "state" CA and "trait" CA (McCroskey, 1977b). This trait-state conceptualization is also common in personality and abnormal psychology. State CA is specific to a given oral communication situation and is a normal response that most people experience when confronted with the threatening prospect of oral communication in a public setting. State CA is in no way pathological. On the other hand, trait CA is not characteristic of normal, well-adjusted persons. Trait CA is characterized by fear or anxiety with respect to many different kinds and types of oral communication encounters. Individuals with high levels of trait CA characteristically experience high

levels of apprehension about almost all oral communications, both those that could rationally be described as threatening and those which could not be so described (McCroskey, 1977b). Phillips (1968) referred to high trait CA as a pathological condition in normal speakers, since most high communication apprehensives have no problem with basic speech skills.

Labels for Comunication Apprehension

The research on fear and anxiety about oral communication has been conducted under a variety of labels including- stage fright (Clevenger, 1959), audience sensitivity (Paivio, 1964), reticence (Phillips, 1968), shyness (Zimbardo, 1977), and CA (McCroskey, 1970). McCroskey (1977b) claimed that these different labels were a function of the academic discipline in which they were formulated and were not a function of any theoretical or empirical distinctions. Where appropriate, these labels were used as synonyms for communication apprehension in the present literature review. Shyness came out of social psychology, audience sensitivity came from developmental psychology, while CA evolved from earlier work in speech communication. Even though CA is a subconstruct of reticence and unwillingness to communicate, it differs from those two constructs in that it specifies only fear

and/or anxiety as the causal element. Avoidance and withdrawal behaviors fall beyond the scope of the CA construct (McCroskey, 1977b).

McCroskey (1982a) acknowledged the earlier work in the areas of stage fright and reticence as the foundations upon which the CA construct was developed. Oral CA can be differentiated from stage fright since being nervous while giving a public speech is normal, but having the same experience while talking to a peer is not normal. Humans with oral CA typically experience both fears, but not everyone with stage fright suffers from oral CA (McCroskey, 1977b). McCroskey (1982a) conceptualized stage fright as representing CA in the public speaking context and therefore being a subset of the broader construct of CA. Reticence grew out of the earlier work on stage fright.

Phillips (1968) defined the reticent speaker "as the person for whom anxiety about participation in oral communication outweighs his projection of gain from the situation" (p. 40). Reticent individuals as well as high communication apprehensives, seek occupations and activities that spare them from communicating. Merely being quiet is not the problem for reticents. Many people who do not choose to be garrulous or eloquent are able to

cope with the verbal demands that are made on them. Reticents cannot participate even when they need to or even when they strongly want to. During the anticipation of speaking or during a speech, the reticent speaker may experience a loud and rapid heartbeat, headache, butterflies in the stomach, nausea, throbbing temples, excessive perspiration, and be unable to see the audience. They are prisoners of their own techniques of avoidance and can fulfill neither themselves nor the demands of society (Phillips, 1968).

Reticent individuals have socially maladaptive behaviors in the verbal domain, do not talk much, and are silent in the classroom. They misperceive social situations, are uncertain about obligations, wait for others to make the first move, are confused and uncertain about the nature of their problem, do not know what communication really involves, do not listen well, and are low in self-esteem (Phillips, 1973).

McCroskey (1977b) asserted that reticence and CA were the same construct. Reticence was seen as being the most global of the labels for fear and anxiety about oral communication, because it dealt with a trait of the individual which caused him/her to characteristically remain silent, rather than participate in communication.

Anxiety was not seen as having a centrally defined causative role in reticence. McCroskey (1982a) reconceptualized reticents as individuals who do not communicate competently. Reticence was seen as a construct representing the range of communication incompetence, while CA was seen as a subset of it. CA was not seen as the only, or even the most important contributing factor to reticence (McCroskey, 1982a).

Unwillingness to communicate is the label for the situation when individuals do not want to communicate, and thus do not communicate effectively. Unwillingness to communicate recognizes a number of potential causative elements such as CA, low self-esteem, introversion, and alienation which could lead to a global predisposition to avoid communication. Unwillingness to communicate was seen as being in an intermediate position between CA and reticence. Unfortunately research on unwillingness to communicate has been very limited (McCroskey, 1982a).

McCroskey (1982a) cautioned readers of the shyness literature to be aware of the inconsistent use of that term, and advised against assuming that shyness was a unique construct. A broad definition for shyness is "the relative absence of expected social behaviors" (Buss, 1980, p. 124). Shyness also involves feelings of tension

and awkwardness (Buss, 1980), a tendency to avoid social interactions (Pilkonis, 1977), and an anxious self-preoccupation (Crozier, 1979). Shyness is caused by social anxiety, low social skills, or low social self-esteem while CA is caused by only fear or anxiety (McCroskey & Richmond, 1982a).

The Personal Report of Communication Apprehension

Various forms of the Personal Report of Communication Apprehension (PRCA) have been published in the speech communication literature and have been underutilized by psychologists (Leary, 1983). The Personal Report of Communication Apprehension for College Students (PRCA-College) was developed by McCroskey (1970) to measure the broadly-based anxiety referred to as CA. The PRCA-College, also known as the PRCA-20, is a 20-item instrument that was developed from an initial pool of 76 items. The items focused on interpersonal communication in dyads, small group communication, and public speaking situations. Odd-even internal consistency reliability estimates (N=1434) ranged from 0.92 to 0.94. Test-retest reliability (N=769) for 10 days was 0.83. The final version of the PRCA-College was developed by substituting a new item with an item-total correlation of 0.72 for an

item with an item-total correlation of 0.28 (McCroskey, 1970).

McCroskey (1978) reported the development of the PRCA-Long Form, also known as the PRCA-25. This 25-item instrument was developed by adding five interpersonally oriented items to the original PRCA. The reliability estimates for this scale range from 0.92 to 0.96. It had a test-retest reliability (N=762) of 0.82 over a seven week period. McCroskey (1978) also reported the development of a 10-item PRCA-Short Form. The latest, 24-item, version of the PRCA was reported in McCroskey and Beatty (1984).

The various forms of the PRCA are correlated with other personality variables such as introversion, self-esteem, self-acceptance, and verbal reticence in ways that also suggest validity for the PRCA. Besides measuring the relatively stable construct of oral CA, the PRCA can also measure change in the level of oral CA in individuals, when a major intervention strategy, such as the clinical treatment of systematic desensitization, is used (McCroskey, 1978).

Daly (1978) compared 14 social-communicative anxiety self-report measures. The original version of the PRCA was found to have the highest average correlation with all other measures, had the highest loading on the final

factor obtained, and was among the most reliable measures of the 14 assessed measures (Daly, 1978).

Communication Apprehension: Construct or Artifact?

The scientific usefulness of communication apprehension as a construct was seriously questioned by Porter (1979). Porter claimed that CA was essentially a reconceptualization of stage fright. Due to a lack of reliability and construct integrity and an absence of replication, Porter (1979) asserted that the CA construct had less than complete scientific usefulness. Porter (1979) reported three threats to the construct integrity of CA: 1) CA may be a subset of generalized anxiety, 2) the instrument used to measure CA examined only public speaking activity, and 3) the highly negative correlation between ratings of self-concept as an oral communicator and CA scores.

The first threat to the construct integrity of CA was that an alternative construct, generalized anxiety, was nearly as successful in predicting the dependent variables (GPA, instructional preference, and self-communicator ratings) as the Personal Report of Communication Apprehension (PRCA). Thus CA could be a subset of generalized anxiety. If so, the boundary between these two constructs is not clearly marked (Porter, 1979).

There were severe flaws in Porter's (1979) replication studies and in his logic. Using the PRCA scores of 155 respondents, significant differences in the hypothesized direction were found between their preferences for instructional techniques on five of the six forced-choice questions. Significant differences in the hypothesized direction were found on only three of the six forced-choice questions using a measure of generalized anxiety. On the one question out of the six for which the PRCA did not discriminate instructional preferences, the generalized anxiety measure did however. After reporting this evidence Porter (1979) erroneously concluded that the measure of generalized anxiety was as good a predictor of instructional preference as the PRCA.

Porter (1979) reported a non-significant correlation of -0.06 (N=401) between PRCA scores and GPA. Using a generalized anxiety measure with the same sample, a significant, but small, correlation of -0.12 was reported between the generalized anxiety scores and GPA. On the basis of that limited evidence, Porter (1979) concluded that the measure of generalized anxiety was clearly a better predictor of GPA than the PRCA.

The differences in generalized anxiety scores were nearly as great as those of the PRCA scores, for the four

groups of possible self-communicator ratings (Porter, 1979). However, Duncan range tests for the generalized anxiety group means revealed that the "above average" and "excellent" self-communicator group means did not significantly differ, while all combinations of the four PRCA group means for self-communicator ratings were significantly different. Correlations between the self-communicator ratings and the two predictor measures were unfortunately not reported. Thus Porter (1979) was not totally justified in claiming that the measure of generalized anxiety was nearly as successful in predicting self-communicator ratings as the PRCA. Overall when examined closely, the evidence leads one to seriously question Porter's (1979) conclusion that CA could be a subset of generalized anxiety. Generalized anxiety was not always nearly as successful as CA in predicting the dependent variables.

Porter's (1979) second threat to the construct integrity of CA was that occupational preferences that involved a great deal of interpersonal communication activity were not predicted by the PRCA in previous studies, while occupational preferences with extensive public speaking activity were. Porter concluded that the

PRCA did not extend the conceptual parameters of CA beyond public speaking activity (Porter, 1979).

Porter (1979) used the original 20-item version of the PRCA which was developed by McCroskey (1970). The original PRCA was heavily slanted toward public speaking, since half of the items directly referred to public speaking situations. Therefore it was not surprising that occupational preferences with extensive public speaking were predicted better, than were occupational preferences with a great deal of interpersonal communication activity. A 20-item PRCA-Organization Form was reported by Scott, McCroskey, and Sheahan (1978). The PRCA-Organization Form was developed to have a cross-section of the types of communication required of employees in typical organizations. Its items are directly relevant to CA in typical organizations, since the items refer to representing the organization to other people, answering questions at a meeting, talking to subordinates, talking to superiors, and interviewing people (Scott et al., 1978). Since the PRCA-Organization Form is less heavily biased toward public speaking than the original PRCA was, it should be a better predictor, than the original PRCA, of occupational preferences that involve a great deal of interpersonal communication activity.

Porter's (1979) last threat to the construct integrity of CA was a -0.84 correlation (N=414) between ratings of self-concept as an oral communicator and PRCA scores. Porter (1979) claimed that because of that relationship that CA might simply be a new name for self-concept. Porter did not explain if "self-concept" was being used as merely a synonym for self-esteem or in the broadest sense of the word. If Porter was using "self-concept" as merely a synonym for self-esteem, then the third threat can be rebutted. More reasonable correlations of CA with self-esteem of between -0.52 and -0.72 have been reported (McCroskey, Daly, Richmond, & Falcione, 1977). Even if Porter was using "self-concept" in the broadest sense of the word, the third threat presents no problems to the present research. The conceptualization of the present research assumes that CA is part of a person's total occupational self-concept. Due in part to a lack of adequate instruments to measure occupational self-concept, only CA was measured in this research.

Porter's three threats to the construct integrity of CA were: 1) CA may be a subset of generalized anxiety, 2) the PRCA examines only public speaking activities, and 3) a highly negative correlation between ratings of

self-concept as an oral communicator and PRCA scores. The first threat was rebutted since generalized anxiety was not always almost as successful as CA in predicting the dependent variables. The second threat was rebutted since newer versions of the PRCA are less heavily slanted toward public speaking. The last threat was rebutted by more reasonable correlations between CA and self-esteem that have been reported, and by the conceptualization of the present research, that CA is part of a person's total occupational self-concept.

Incidence of Communication Apprehension

Communication apprehension may be a common phenomena. Data suggests that between 15% and 20% of American college students suffer from debilitating oral CA (McCroskey, 1977a). This debilitating type of CA is apprehension of sufficient magnitude to seriously interfere with the individual's functioning in normal human encounters. Between 10% and 15% of college students suffer from less severe apprehension about writing (McCroskey, 1977a). Screening surveys have shown a potential incidence of the related construct of reticence ranging from 5% to as high as 33% in typical classrooms (Phillips, 1968). Even severe levels of singing apprehension may affect 5% to 10% of the college student population. Individuals can suffer

from only one, or from several types of CA since oral and written apprehension correlate only about 0.35, while oral and singing apprehension correlate only about 0.10. CA may affect even more Americans than the handicaps of speech impairment, mental retardation, emotional disturbances, deafness, blindness, and physical disabilities combined (McCroskey, 1977a).

Males may have higher levels of singing apprehension while females may have higher levels of oral CA (Andersen, Andersen, & Garrison, 1978). McCroskey, Simpson, and Richmond (1982) investigated the relationship between biological sex and CA. The results indicated that males may be slightly more shy than females, females may be slightly more apprehensive about public speaking than males, but males and females do not differ meaningfully in terms of general CA (McCroskey et al., 1982).

As previously noted shyness has not been defined consistently. Nevertheless, it is informative to note that 80% of the individuals questioned by Zimbardo (1977) reported that they had been shy at some point in their lives, 40% considered themselves to presently be shy, while only about 7% of the sample reported that they had never experienced feelings of shyness (Zimbardo, 1977).

Therefore it appears that both CA and shyness are serious problems in America.

The construct of CA was developed in the American culture. Klopf and Cambra (1979b) studied the cross-cultural incidence of CA. Using the PRCA-College instrument with college students, their results indicated that the Americans surveyed had a significantly lower incidence of CA than the Japanese, but a significantly higher incidence of CA than the Australians or Koreans surveyed. These results were consistent with the observation that the Japanese culture places less emphasis on oral skills than societies that reward verbal behavior. In these societies (such as the American, Australian, and Korean) high communication apprehensives are at an disadvantage in terms of success in the society (Klopf & Cambra, 1979b).

Organization of the Sections

Since few Industrial/Organizational psychologists are familiar with the communication apprehension literature, Section I has been a general introduction to the CA literature. Section II introduces Super's self-concept implementation theory and some of the research on the theory. Section III reviews the CA literature as it relates to I/O psychology. Section III also develops a

model of communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities. Section IV is the methodology, Section V is the results, and Section VI is the discussion of the present study.

II. SELF-CONCEPT IMPLEMENTATION THEORY

Introduction to Self-concepts

As is the case with defining any psychological construct, defining self-concept is difficult, but Cattell (1950) wryly observed that objects which can be completely defined are hardly worth further study. Super's earliest articles on self-concept implementation theory do not even define what a self-concept is (Super, 1951, 1953). The glossary in Super, Crites, Hummel, Moser, Overstreet, and Warnath (1957) does not include a definition of self-concept. However, they earlier stated that:

> the self-concept is what the person under consideration conceives himself to be, the self as inferred by self. It is communicated to others by "I..." sentences. The self-concept is differentiated from the self as inferred by others. The self is the result of the interaction between growth processes and personal-social development, the interaction of the person with others around him. As the individual takes roles in daily living and plays other roles in fantasy or play, as he identifies with role models and strives to emulate idealized persons, some of these roles and some of the associated traits are internalized as self-percepts, and his concept of self develops (Super et al., 1957, p. 47).

Self-concepts are relatively enduring (Super, Starishevsky, Matlin, & Jordaan, 1963), but even for adults the self-concept can be modified by role-taking or

by role-playing (Super et al., 1957). A person's self-concept is not totally the same as her/his self-esteem, but self-esteem is part of a person's self-concept.

O'Hara and Tiedeman (1959) defined self-concepts as individuals' evaluations of themselves. Self-concept is the product of a person's attempts to make a successful adjustment to the environment. The environment limits the exposure of individuals to job incumbents in various occupations, and to commonly held occupational stereotypes. Environmental and genetic limitations interact, to restrict the degree to which individuals perceive various occupations as being suitable for themselves. Within environmental and genetic limitations, a person identifies with people in a particular occupation. If the person has the necessary interests and aptitudes, which provide satisfactory rewards, and the identification is a practical one, then it continues. By strengthening a particular concept of the self, the identification exerts an integrating influence on the personality (Super & Bohn, 1970). In vocational terms self-concept is "the constellation of self attributes considered by the individual to be vocationally relevant,

whether or not they have been translated into a vocational preference" (Super et al., 1963, p. 20).

A self-concept is one's view of who one is and who one is not, and includes who one expects or would like to be. Individuals may or may not be aware of their self-concepts, but their actions are based on them. Self-concept is the totality of different ways of seeing oneself. A view of one's abilities, interests, personality, or place in society might be included in a self-concept. A self-concept includes a sense of one's social self and more psychological attributes, and may or may not agree with another person's more objective view of one's personality. The major vocationally relevant elements of self-concept are gender, social class background, intelligence, vocational interests, competencies, and values (Gottfredson, 1981).

Individuals' self-concepts include a number of self-constructs or self-schema, which are categories individuals use to classify and organize information about themselves. These self-schema are generalizations based upon regularities individuals observe in their own behavior. Individuals use a limited number of self-constructs to identify what they are like, instead of

attempting to recall every little fact about themselves (Leary, 1983).

Some self-constructs are more important or central to a person's sense of identity than others. Two self-constructs may be equally descriptive of an individual, but she or he may value one attribute more than the other and consider it more important to her or his self-concept. Individuals may be more motivated to convey impressions of themselves that are more central to their self-concepts. When individuals successfully convey a social identity that embodies self-constructs that are central to their self-concept, they are given feedback that enhances their self-concept. Individuals are motivated to project images of themselves, and of their self-concept, that other people will confirm, and thus provide external validation for their own self-constructs (Leary, 1983).

Super's Theory

The major psychological theories of vocational choice, including Super's theory, assume that individuals try to implement knowledge about themselves, in the process of vocational choice. Therefore, vocational adjustments and satisfaction are determined by the degree to which the job and the self are compatible (Gottfredson,

1981). Super's "formulations have probably affected the work of practitioners more than those of anyone else" (Holland, 1976, p. 535).

The basic premise of Super's self-concept implementation theory (Super, 1951, 1953), is that the vocational preferences and career patterns of a person are attempts to implement a self-concept. Self-concepts are involved as a lifelong process in vocational development. People tend to choose occupations that they construe as representing the characteristics that they see in themselves. Self-concepts are formed in early experiences with other people and in life situations (Super & Bohn, 1970).

Self-concepts are translated into occupational preferences through identification, experience, and observation. Self-concepts are implemented in educational and occupational choices, and are modified by the resulting experiences. When individuals take on a role, the way that others act toward the individual in that role is incorporated into the self-concept of the individual (Super & Bohn, 1970).

Individuals select occupations with requirements that provide roles which are consistent with their picture of themselves (i.e. their self-concepts), according to

self-concept implementation theory. In this theory the self-concept has a central role in the vocational decisions of individuals, because it results from the individual's vocational maturity level and his/her developmental history of successes and failures in dealing with experiences and hurdles. The self-concept changes throughout the lives of individuals (Holland, 1976).

Super's theory was developed from the earlier work of Carter (1940) and Bordin (1943). In Carter's (1940) formulations on the development of vocational attitudes, individuals derive satisfaction and status from identification with a respected occupational group. As long as there are no great discrepancies between one's ability and vocational requirements, the individual's identification persists. When individuals encounter insurmountable obstacles, the whole vocational identification process and adjustment pattern are likely to be disrupted (Carter, 1940).

Bordin's (1943) basic theory was that in answering vocational interest inventories, individuals are expressing their acceptance of a particular view or concept of themselves, in terms of occupational stereotypes. There are two corollaries of the theory. First, that the degree of clarity of a vocational interest

will vary positively with the degree of acceptance of an occupational stereotype as self-descriptive. Second, that the degree of clarity of a vocational interest will vary positively with the degree of knowledge of the true occupational stereotype (Bordin, 1943).

Super (1951) proposed in his self-concept implementation theory that a person chooses from a series of alternative occupations the one which is most congruent with her/his self-concept.

> In choosing an occupation one is, in effect, choosing a means of implementing a self-concept....The choice of an occupation is one of the points in life at which a young person is called upon to state rather explicitly his concept of himself, to say definitely, I am this or that type of person (Super, 1951, p. 88).

When individuals develop and accept an integrated picture of themselves and of their role in the world of work, test this picture against reality, and convert it into a reality, the result is satisfaction to themselves and benefit to society (Super, 1951).

Super (1953) viewed vocational development as a compromise process, where the self-concept is the result of the interaction of role-playing, inherited aptitudes, biological make-up, and evaluations of how much approval

superiors and peers give for the role-playing. Role-playing is used in the process of compromise between self-concept and reality. Roles can be played both in fantasy and in real life activities (Super, 1953). Role-playing begins with identification, and allows individuals to gain information about the validity of a self-concept, by hypothesis testing (Gribbons & Lohnes, 1982).

Self-concept results from the interaction of the growth processes and the personal-social development of individuals. Individuals identify with role models, and strive to emulate idealized persons, when they take roles in daily life and play other roles in fantasy or in play. Self-concept develops when some of those roles and some of the associated traits are internalized. When individuals start a job they see 1) if it allows them to play the kinds of roles they want to play; 2) whether the job is compatible with their self-concept, or if the unexpected elements of the job can be assimilated into their self-concept or modified to suit their self-concept; and 3) if they can actually live up to their picture of themselves, when their self-concept is tested against reality (Super, 1957).

Self-concept and Job Satisfaction

Super's theory predicts that an integrated vocational self-concept will be the result of a favorable outcome in the process of exploration and hypothesis-testing. The potential conflict between self-concept and reality should be minimized, when individuals are able to realistically appraise their interests, abilities, values, strengths, and weaknesses and use this information to make occupational choices. Individuals with unrealistic self-concepts will not be prepared to face the environment. Poor planning, underestimating or overestimating one's own abilities, and lack of information may force individuals to drift into unsuccessful careers. This drift may result in disappointment, frustration, and depression. On the other hand, vocationally mature individuals are satisfied with their careers and with themselves (Gribbons & Lohnes, 1982).

Super et al. (1957) asserted that the amount of job satisfaction individuals have is related to the degree to which they are able to implement their self-concept in their work.

> Work satisfactions and life satisfactions depend upon the extent to which the individual finds

> adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate (Super, 1953, p. 190).

In the present research an attempt was made to show that communication apprehension and job level held were related to: 1) communication requirements of the job held, 2) job satisfaction, and 3) career change activities of employees. The results were hypothesized as related to the effects of the employees' job level and the main or interactive effects of their communication apprehension and the communication requirements of their jobs. The logic of Super et al. (1957), on the degree to which the individual and the job are compatible, was used in the interaction part of the model.

Empirical Investigations of Self-concept Implementation Theory

Several empirical investigations of Super's theory have been reported. Brophy (1959) had nurses working in a New York hospital complete an adjective checklist to describe themselves, their ideal selves, and the kind of person their jobs required them to be. They also filled out a job satisfaction questionnaire and questionnaires

designed to measure general satisfaction, vocational satisfaction, self-concept, ideal self, perceived imposed life role, perceived imposed occupational role, ideal occupational role, self-acceptance, and occupational role acceptance. The magnitude of the discrepancy between designated pairs of the separate concepts was correlated with the satisfaction measures. Vocational satisfaction was negatively related to the discrepancies between self-concept and imposed occupational role, between ideal occupational role and imposed occupational role, between self-concept and ideal self. Vocational satisfaction was positively related to occupational role acceptance. General satisfaction and vocational satisfaction were also significantly correlated. The hypothesis of Brophy (1959), that the similarity of the self-concept and the perceived occupational role requirements (occupational concept) correlates positively with job satisfaction, was sustained.

Gurin, Veroff, and Feld (1960) reported that individuals who looked for some expression of the self in the job, experienced a higher degree of job satisfaction when those expectations were gratified, than was experienced by those individuals who got only material and other extrinsic gratifications from the job. However, the

greater expectations, even when satisfied, also led to the experience of other problems on the job. Persons who were involved in their jobs tended to be at the extremes on a scale of job satisfaction (Gurin et al., 1960).

Englander (1960) compared the self-descriptions of a group of college students with their descriptions of elementary teachers. A greater similarity was found between those two descriptions for majors in elementary education, than for noneducation majors. The similarity between those two descriptions for students majoring in fields of education other than elementary teaching was intermediate to the other two groups of majors. The elementary teaching majors perceived elementary teaching as a means of perpetuating self-images and attaining those things which they desired in a vocation, as would be predicted by Super's theory. Also the noneducation majors perceived elementary teaching as a vocation quite different from what they expected and desired for themselves. Therefore, it appears that individuals must consider an occupation as appropriate for themselves, before they will select it (Englander, 1960).

Hunt (1967) reported that the vocational interests of a cross validation sample could be predicted from the relationships between their self-concepts and perceptions

of possible vocational choices. Greater similarity or congruence between individuals' perceptions of themselves and their perceptions of vocational choices, was related to their choice of a given vocation (Hunt, 1967).

The self-concept is not necessarily an accurate picture of the individual's self. Individuals distort and restrict self-awareness as a result of their own particular needs. Inappropriate vocational objectives are synonymous with distortions of the self-concept.

Norrell and Grater (1960) predicted and found, that the psychological needs of order and succorance would restrict self-awareness and limit individuals' ability to make accurate judgments about vocational interests. The sample used was 53 male, college sophomores with undeclared majors. The subjects were given the Strong Vocational Interest Blank and the Edwards Personal Preference Schedule. They were asked to predict their interests on a profile sheet similar to the one used in plotting Strong interest patterns. The results supported the theory that making a vocational choice is an expression of the individual's self-concept, and that if the self-concept is distorted by a lack of self-awareness, the vocational choice will be inappropriate (Norrell & Grater, 1960). Using a sample of 525 male National Merit

Scholars, Warren (1961) tested and supported the hypothesis that changes in college field of specialization or in college major are likely to occur, when there is a discrepancy between self-concept and expected occupational role.

Tageson (1960) used Q-sorts to obtain descriptions of the self, the ideal self, the ideal seminarian, and the average seminarian from 120 seminary students. Faculty and peer ratings of realism in the vocational choice of each seminarian were also obtained. Positive and significant relationships were found between compatability of self and occupational role concepts, both actual and ideal, on the one hand and realism of vocational choice, as rated by both peers and faculty, on the other (Tageson, 1960).

Blocher and Schutz (1961) had 135 twelfth grade males describe themselves and their ideal selves on a 180-item check list. Each student was given a list of 45 occupations and asked to choose the one which interested him the most and the one in which he had the least interest. One week later they were asked to describe the typical member in each of the two occupations with the same check list they had used before. The degree of similarity between the self-descriptions, both actual and ideal, and descriptions of members of the most and least

interesting occupations were computed. As predicted, the subjects tended to describe their stereotype of a typical person in the occupation in which they expressed the most interest, as significantly more similar to both their actual and ideal self descriptions, than to their descriptions of members of the least interesting occupations (Blocher & Schutz, 1961).

The results of Wheeler and Carnes (1968) also supported the theory that the occupational choice of an individual is an implementation of her/his self-concept. The respondents saw their probable occupational choices, but not their ideal occupational choices as a means of self-actualization. High self-esteem is frequently conceptualized as a small discrepancy between self-concept and ideal self-concept. Since the students surveyed by Greenhaus and Simon (1976) who were most likely to consider their chosen occupation ideal were high in self-esteem, that study provided more support for Super's theory.

Stephenson (1961) determined the occupational status, four to eight years later, of persons who completed their premedical work at the University of Minnesota, and who were not granted admission to the School of Medicine of the University of Minnesota. The single largest

occupational group found was medical doctor, general practice. Two thirds of the total applicant group were eventually admitted to a medical school and the overwhelming majority (80%) of all persons eventually were found in medical or related occupations. The findings were interpreted as evidence that the self-concept of the premedical student had crystallized, prior to making application to medical school (Stephenson, 1961).

Morrison (1962) used Q sorts of self perceptions and occupational role perceptions with groups of nursing trainees and teacher trainees. Both groups described themselves, nurses, and teachers. The evidence supported the self-concept implementation theory of occupational choice, since both samples showed a significantly greater similarity between their self perceptions and their perceptions of their chosen occupational roles, than between their self perceptions and their perceptions of the occupational role they had not chosen (Morrison, 1962).

Vroom (1962) examined ego-involvement, job satisfaction, and job performance in a field study which used data from industrial workers. A person was defined as ego-involved in a task or job to the extent his/her self-esteem was affected by his/her job performance level.

The job satisfaction and satisfaction with self of persons who were ego-involved in their jobs, was significantly more positively related to the amount of their opportunity for self-expression in their jobs, than was the case for individuals low in ego involvement. Vroom (1962) concluded that when work-related aptitudes and abilities are central to a person's self-concept, her/his satisfaction may be affected to a greater extent by the degree to which she/he has an opportunity to use them in the work situation, and that ego involvement in work increases with occupational level.

Vroom (1964) reported an unpublished test of Super's theory. Undergraduates were asked to rank five occupations (including lawyer, artist, personnel manager, and physicist) in order of preference and were asked which occupation they planned to enter upon completion of their education. Q-sorts were used to measure each student's self-concept (N=82). The students sorted a set of 15 attributes (e.g. creativity, leadership, intelligence) into piles according to the extent to which they possessed each attribute, and would like to possess each attribute. They then sorted the same attributes into piles according to the extent to which they were important for success in each of the five occupations, as well as for success in

their chosen occupations. The correlations between the subjects' self-concepts and their concepts of requirements of occupations was greatest for the chosen occupation, and decreased progressively for the occupations ranked first through fifth. The findings suggested a tendency for the valence of an occupation to be related to the extent to which the person believes himself/herself to have the attributes necessary for success in it (Vroom, 1964).

Bingham (1966) hypothesized that change of occupation was a function of the extent to which self-concept and occupational concepts agree. A modification of Kelly's Role Construct Repertory Test (Role Rep Test) was administered to 82 full-time graduate students. All of these graduate students were experienced classroom teachers beginning training to become school counselors. Testing was done at the beginning and end of the year of training. A control group was 44 secondary school teachers with no guidance aspirations. Both groups rated themselves and the occupations of teacher and counselor, using traits shown by the Role Rep Test to have meaning for the respondents.

Measures of agreement between self descriptions and occupational descriptions were then derived. The new counselors who had been teachers showed higher levels of

incorporation into their self-concepts of the occupation of counselor than of teacher, attributed more of their own traits to the occupation to which they were changing than to the occupation they were giving up, and made higher incorporation scores as counselors than did the teachers who served as controls. Contrary to expectation, the year of full-time professional preparation led to no increases in similarity of self and counselor descriptions (Bingham, 1966).

Self-esteem is only part of a person's self-concept. Korman's (1966) results strongly supported the prediction that self-esteem operates as a moderator variable in the process of vocational choice, since individuals high in self-esteem used their self-perceived needs differently from those individuals with low self-esteem. Individuals with high self-esteem tended to implement their self-concept when making an occupational choice while low self-esteem persons did not. High self-esteem persons were more likely to possess traits relevant to their chosen occupation than were low self-esteem persons. For those high in self-esteem, their self-perceived needs have been satisfied in the past, and therefore these people sought out roles (jobs) where they would be satisfied in the future. This same type of search did not occur for

individuals low in self-esteem (Korman, 1966). In a similar fashion, Greenhaus (1971) concluded that individuals high in self-esteem tended to look at their own needs and relevant attributes in determining their satisfaction with their occupational choice, while low self-esteem persons looked more toward external, or social cues to determine their satisfaction.

Oppenheimer's (1966) subjects preferred occupations congruent with their self-concepts. Self-esteem was positively related to the degree of agreement between self-concepts and occupational preferences. The results were consistent with the thesis that people who are dissatisfied with themselves will also be dissatisfied with occupations that represent a translation of their self-concepts. Some evidence suggested that people with personal dissatisfaction are motivated to find expression for their ideal self-concepts, rather than for their actual self-concepts, in formulating occupational preferences (Oppenheimer, 1966).

Super et al. (1963) identified the following metadimensions of self-concept: self-esteem, clarity, abstraction, refinement, certainity, stability, and realism. Clarity of self-concept was defined as awareness of the nature of self-attributes. Super et al. (1963)

stated that clarity of self-concept may be related to having a vocational preference, to the consistency of vocational preferences, and to the ease of vocational decision making.

Isabelle and Dick (1969) examined clarity of self-concept as a factor in vocational development. The sample was male, liberal arts students in a small Canadian university tested as freshmen (N=159) and again two and a half years later (N=70). High and low clarity groups were established by judges' ratings, on the basis of the students' directly expressed vocational self-concepts. The high clarity group had eliminated more occupational preferences over the two and half year interval than the low clarity group. The low clarity group manifested a higher degree of discrepancy between self-descriptions and descriptions of the "successful" person in their preferred occupation, than the high clarity group. Comparisons were made using the Strong Vocational Interest Blank. The high clarity group tended to identify more with the criterion occupational sample most closely related to each person's highest occupational preferences, than was the case for the low clarity group. The general hypothesis that there are varying patterns of vocational development among the subgroups of the sample, when compared on the

metadimension of self-concept clarity, was confirmed (Isabelle & Dick, 1969).

Ziegler's (1970) respondents described themselves and their most-preferred and least-preferred occupational member concepts. These individuals perceived a greater degree of congruence between themselves and their most-preferred occupational member concepts, than between themselves and their least-preferred occupational member concepts. Also in support of Super's theory, there was a suggestion that the respondents in a common occupational interest area, had in common self-concept features which distinguished them from respondents who preferred other occupational interest areas (Ziegler, 1970).

Summary

This section discussed definitions of self-concepts and how individuals develop a self-concept. Super's theory was discussed with an emphasis on the parts of the theory that deal with the vocational choices, career patterns, and job satisfaction of individuals. Empirical investigations of Super's theory were reviewed. The next section develops a model that allows predictions to be made about: 1) the communication requirements of the job as a function of employees' communication apprehension, 2) the communication requirements of the job as a function of

the job level held, 3) the job satisfaction of the employees as a function of the main or interactive effects of their CA and the communication requirements of their job, 4) the career change activities of employees as a function of their CA, and 5) the career change activities of employees as a function of their job satisfaction.

III. COMMUNICATION APPREHENSION IN ORGANIZATIONS

Communication Apprehension and Occupational Choice

Perhaps one of the most important factors by which jobs differ, is the degree to which they involve dealing with people, as opposed to dealing with things or ideas. Dealing with things or ideas at work is probably preferred by individuals with high communication apprehension (high apprehensives) over dealing with people. High apprehensives might prefer to not have jobs that involve dealing with people much, since they consider dealing with people to be too stressful.

The early research of Gilkinson (1943) first showed that fearful college speech students showed a relatively low preference for vocations and activities involving public speaking. Low and Sheets (1951) found no significant differences between speech students with the most stage fright and those with the least stage fright in their interest in the fields of science, mechanics, nature, and business. Bendig (1963) looked at the relationship of introversion and extraversion to vocational interests. Socially introverted subjects tended to be interested in professional, scientific, engineering, and teaching vocations. The first three of those are often thought of as not having high communication requirements.

Male extraverts were somewhat interested in social service occupations, while female extraverts were oriented toward sales (Bendig, 1963). Both of those types of jobs are usually thought of as having high communication requirements.

The often cited study of Daly and McCroskey (1975), which studied the relationship between CA and occupational choice, used the 20-item version of the PRCA (Personal Report of Communication Apprehension). CA affected both the perceived desirability of a number of occupations as well as the actual job choices made by the subjects. High communication apprehensives perceived low communication jobs as significantly more desirable than high communication jobs, while low apprehensives perceived high communication jobs as significantly more desirable than low communication jobs. Also the occupational choices of the high apprehensives were significantly lower in perceived communication requirements, than those selected by low apprehensives.

CA did not account for significant variance in the perceptions of the communication requirements, for the jobs that were not chosen by the individuals in the study. Therefore even though the choice of occupations was strongly related to an individual's level of CA, the

individuals in this study provided accurate descriptions of the communication requirements of the occupations, regardless of their own level of CA. The jobs in this study with high communication requirements were: trial lawyer, salesperson, public school teacher, counselor, bartender, social worker, industrial negotiator, politician, television newscaster, and actor. The jobs with low communication requirements were: mailman, statistician, computer programmer, farmer, assembly line worker, radiologist, research chemist, proofreader, accountant, landscape gardener, botanist, miner, house painter, and artist (Daly & McCroskey, 1975).

Scott, McCroskey, and Sheahan (1976) reported that an adult sample of high apprehensives had a significant preference for occupations with lower communication requirements than the low apprehensives, while for the low apprehensives the pattern was the exact reverse. However, as part of an attack on the original PRCA, Porter (1981) reported that occupational preferences that involved a great deal of interpersonal communicative activity were not predicted by the PRCA, while preferences with extensive public speaking activity were, and that therefore the PRCA did not extend the conceptual parameters of CA beyond public speaking anxiety.

Writing apprehension, the apprehension an individual has about the active encoding of written messages, has also been shown to affect occupational choice. Using 95 undergraduates as respondents, Daly and Shamo (1976) wrote that high writing apprehensives found occupations with low writing requirements to be significantly more desirable than occupations with high writing demands. A trend in the opposite direction was observed for the low writing apprehensives. The occupational choices of high writing apprehensives were also significantly lower in perceived communication requirements, than those selected by the low writing apprehensives (Daly & Shamo, 1976).

McCroskey, Andersen, Richmond, and Wheeless (1981) reported that the proportion of teachers with high CA was much greater in grades one through four than at other levels, among a sample of elementary and secondary school teachers. Also high apprehensives were more likely to prefer to teach in those grades than in other grades. Thus it appears that high apprehensives are less troubled by younger children (McCroskey et al., 1981). This result is consistent with research showing that younger children are less likely to cause shyness, than are older children and adults (Zimbardo, 1977).

Klopf and Cambra (1979a) examined apprehension about speaking, specifically for occupationally related speaking situations such as talking to a person in authority, speaking on behalf of the company to outsiders, and expressing opinions at company meetings. Individuals representing 22 organizations (N=206) completed the PRCA-Organization Form of Scott, McCroskey, and Sheahan (1978) which was designed to measure oral CA in the organizational setting. The sample was heterogeneous with respect to occupation, position in the organizational hierarchy, and degree of responsibility. Fifty five percent of the sample was employed in occupations which previous research had found involved the least amount of time speaking with others (clerical, technical, skilled, and unskilled) and 45 percent was in occupations requiring more time speaking (teachers, administrators, engineers, sales, and business managers). The hypothesis, that apprehension about talking was higher among employees in occupations requiring less speaking than in those requiring more speaking, was supported (Klopf & Cambra, 1979a).

The literature reviewed above on CA and occupational choice, consistently supported the hypothesis that high apprehensives preferred jobs with low communication

requirements, and vice versa for low apprehensives. Of the seven studies reviewed, only Low and Sheets (1951), which examined the related construct of stage fright, did not report results consistent with the hypothesis.

Communication Apprehension and the Job Application Screening Process

How does the communication apprehension level of individuals affect their chances for successfully obtaining jobs? Both CA and shyness refer to an internal state of the individual which inhibits that person across a wide variety of communication contexts- from job interviews, through group conferences, to the public speaking platform. The most consistent consequence of an individual suffering from high CA is a low amount of verbal output. Without an adequate amount of communication upon which to make judgments, communication receivers, such as job interviewers, tend to make negative evaluations of high apprehensives. The CA literature consistently shows that having a high CA level hurts an individual's chances of obtaining a job.

High communication apprehensives generally go unnoticed in the general society. They tend to be selected by themselves and by employers into occupational roles that insure that they will have comparatively lower social

status and economic standing. High apprehensives are handicapped from the outset in the organizational world, since they are not likely to even get a job interview, if written credentials and recommendations are used in the screening process (McCroskey & Richmond, 1979).

Successful job hunting requires that you be a walking advertisement for yourself, and not be quiet during interviews (McClure, 1978). Being labeled as reticent or quiet in a recommendation for a job may be the kiss of death for a job applicant. High communication apprehensives are likely to generate negative perceptions in an employment interview (McCroskey, 1982b). Those negative perceptions may be explained partly, by noting the negative relationship that has been found between CA and communication effectiveness (Freimuth, 1976).

High apprehensives in organizations tend to be the last hired, the last promoted, and the first fired (McCroskey & Richmond, 1982b). Daly and Leth (1976) found that high CA job applicants were perceived as less competent. They were projected to be less successful on the job, to require more training, to be less satisfied on the job, and to have more difficulty establishing relationships with coworkers. High apprehensives were less likely to be granted a job interview, even though

they were otherwise as qualified as the other job applicants. Thus Daly and Leth (1976) concluded that high apprehensives were significantly less likely to be offered employment, or even interviews.

Daly, Richmond, and Leth (1979) reported a series of paper-people studies using undergraduates. High apprehensives were less positively evaluated than low apprehensives, regardless of the selector's own level of anxiety and the communication demands of the job. High apprehensives were seen as more appropriately placed in low communication jobs, while low apprehensives were perceived as best placed in high communication positions. Deviations from this fit led to less favorable evaluations and selection decisions (Daly et al., 1979).

Richmond (1977) simulated the job applicant screening process to see how successful high communication apprehensives were in obtaining jobs. Second and third year students in business administration were asked to evaluate the credentials of alleged job applicants. The applications were the same, except that half of the applications included in the credentials a passing reference to the person engaging in several behaviors found typically in high apprehensives, while the other half included a reference to the typical behavior of

persons with low CA. Each student evaluated only one applicant. The high CA applicant was perceived to be less satisfied in their job; to have poorer relationships with peers, supervisors, and subordinates at work; to be less productive; and to have less of a chance for advancement in the organization (Richmond, 1977).

Communication Apprehension and Job Satisfaction and Tenure

The published results on the effects of communication apprehension on job satisfaction and tenure are consistent with previous research. Falcione, McCroskey, and Daly (1977) reported that employees with high oral CA and/or low self-esteem are less likely to be satisfied with supervision, regardless of the supervisor's behavior. This result was predictable, since the verbal demands imposed on high apprehensives when they are forced to interact with their supervisor would make them anxious, even when a supervisor is using communication to reward them (Falcione et al., 1977).

Given the finding that introverts tend to have high levels of CA (McCroskey & Richmond, 1982b), the results of Cooper and Payne (1967) were not surprising. They reported that extraverts had less job tenure and were less well adjusted than the introverts, for work of a routine, repetitive, and machine-paced nature in the packing

department of a tobacco factory. This type of work would not satisfy the social needs of the extraverts. Using a sample of 243 federal and state employees Scott, McCroskey, and Sheahan (1976) found that with age held constant, employees with low levels of CA had 50% more tenure than employees with high levels of CA. That finding suggested a relationship between CA and employee job satisfaction.

Sterns, Alexander, Barrett, and Dambrot (1983) did a field study with 175 Civil Service clerical employees. As predicted, they found that extraverts were less satisfied than introverts with their present clerical jobs, in terms of the work itself, supervision, and co-workers. Generally low apprehensives are extraverts (McCroskey, 1982a). Thus it appears that for non-routine jobs, high apprehensives are less satisfied with their jobs than low apprehensives. Even a promotion usually would not make high apprehensives more satisfied, because promotions usually involve increased verbal demands on job incumbents.

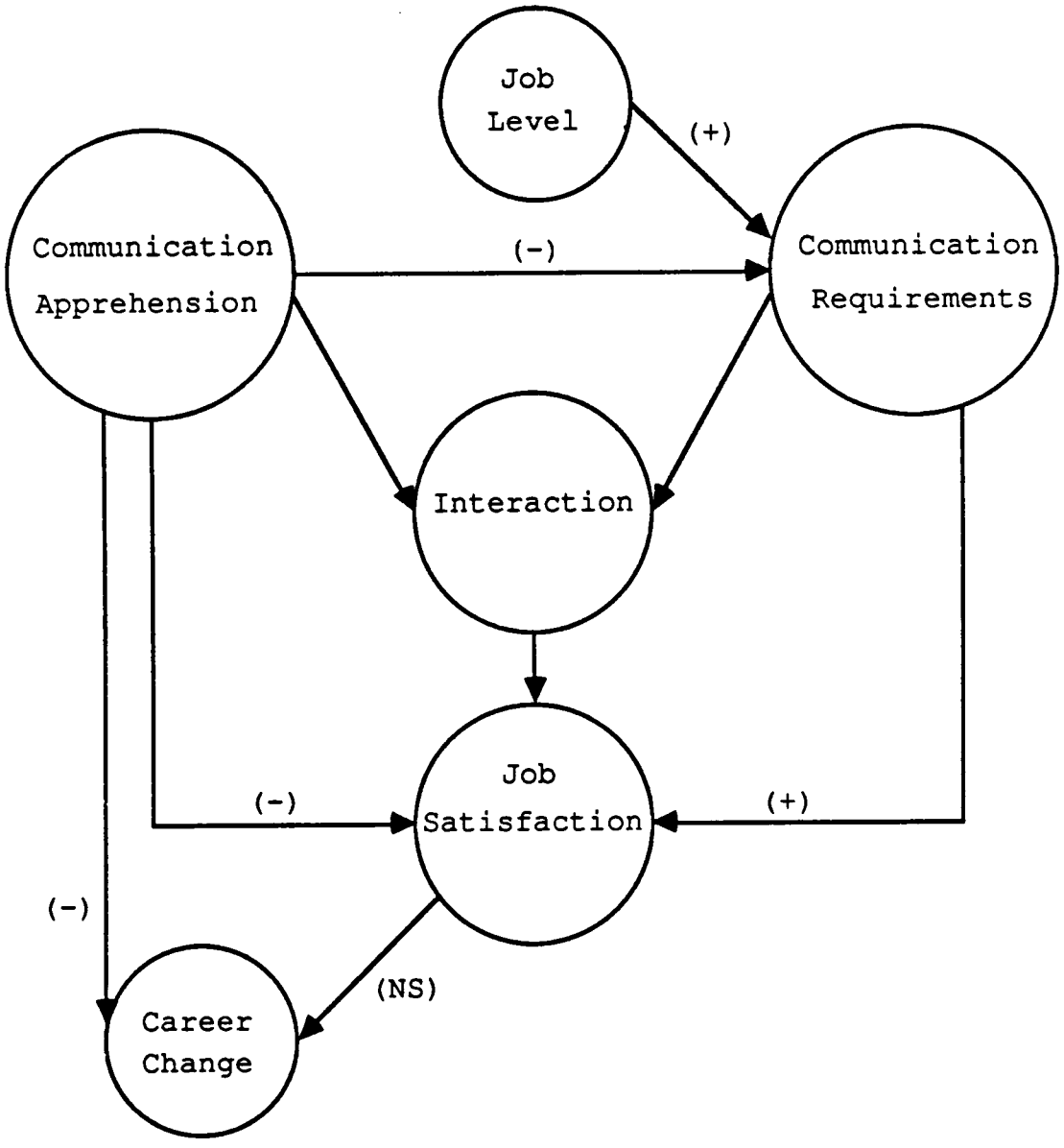
Statement of the Problem

Little research has been reported on the occupational behavior of individuals, as a function of their communication apprehension level. In the present research an attempt was made to show that communication

apprehension and job level held could be used to explain: 1) communication requirements of the job held, 2) job satisfaction, and 3) career change activities of employees. The results were hypothesized as related to the main effect of the employees' job level and the main or interactive effects of their communication apprehension and the communication requirements of their jobs.

Conceptual Model

See Figure 1 for the model of communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities. CA was conceptualized as being negatively related to the communication requirements of the job held, negatively related to job satisfaction, and negatively related to career change activities. Job level held was conceptualized as being positively related to the communication requirements of the job held. The model predicted that the communication requirements of the job were positively related to job satisfaction. CA and communication requirements were conceptualized as interacting in being related to job satisfaction. A weak or nonexistent relationship was predicted between job satisfaction and career change activities.



(+) a predicted positive relationship

(-) a predicted negative relationship

(NS) a predicted weak or non-significant relationship

Figure 1. Model of communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities

Hypotheses and Rationale

The rationale behind the model is described next and the hypotheses used to investigate the model are developed. The literature on communication apprehension and Super's theory are used to provide rationale for the hypotheses.

High communication apprehensives should have less job satisfaction than low apprehensives (Falcione et al., 1977), partly due to the negative tendencies associated with high apprehension (McCroskey et al., 1976).

Hypothesis 1: There should be a negative relationship between communication apprehension and job satisfaction.

High level jobs tend to require more verbal communication than low level jobs (McCroskey & Richmond, 1979).

Hypothesis 2: There should be a positive relationship between job level held and the communication requirements of the jobs.

A positive relationship was predicted between communication requirements and job level held. Job level has been reported as being positively related to job satisfaction in a large number of studies (see Vroom, 1964; Locke, 1976). Therefore, the communication requirements of the jobs may be positively related to job satisfaction.

Hypothesis 3: There should be a positive relationship between communication requirements and job satisfaction.

The most consistent consequence of an individual suffering from high CA is a low amount of verbal output (McCroskey & Richmond, 1979). High apprehensives have been shown to prefer (Daly & McCroskey, 1975; Scott et al., 1976), expect (Scott, McCroskey, & Sheahan, 1978), and to actually hold (Klopf & Cambra, 1979a) jobs with low communication requirements. Due to organizational selection and self selection into jobs that they are suited for, high apprehensives should cluster in jobs with low communication requirements, and low apprehensives should cluster in jobs with high communication requirements.

Hypothesis 4: There should be a negative relationship between communication apprehension and communication requirements of the jobs.

The CA level of the employees should be compatible with the communication requirements of their job, when an employee with high CA has a job with low communication requirements and when an employee with low CA has a job with high communication requirements. These employees should be most satisfied. The CA level of employees should not be compatible with the communication requirements of their job, when a high CA employee has a job with high communication requirements. These employees should be least satisfied (Super, 1953; Gottfredson, 1981). Low apprehensives in jobs with low communication requirements should be satisfied, even though their CA level is not compatible with the communication requirements of their job. These individuals are not necessarily restricted from communicating more than the job requires, if they wish to, and therefore they will be satisfied.

Hypothesis 5: Communication apprehension and communication requirements of jobs

should interact in being related to job satisfaction.

The high apprehensives should be less likely to engage in activities directed at changing or furthering their careers, after attending the Career Planning Workshop, than low apprehensives. The new and/or additional verbal communication that would be involved in those career change activities may inhibit the high apprehensives.

Hypothesis 6: There should be a negative relationship between communication apprehension and career change activities.

There should be a weak or nonexistent relationship between job satisfaction and career change activities. The hypothesized reluctance of the high apprehensives to take actions directed at changing or furthering their careers, the low desire of high apprehensives for promotions, and their low expectations for promotions (Scott et al., 1978) may prevent a significant relationship between job satisfaction and career change activities from occurring. That weak or nonexistent relationship is predicted, even

though a negative relationship is predicted between CA and job satisfaction. Most low apprehensives should be satisfied and therefore not likely to engage in career change activities.

Hypothesis 7: There should be a weak or nonexistent relationship between job satisfaction and career change activities.

IV. METHODOLOGY

Sample

The sample was all 601 employees who had taken part in an organization's Career Planning Workshop within the last three years, and could be located using company records. The workshop had been run by the organization and was being evaluated by the organization. The organization was a large federally-financed research organization.

The Personal Report of Communication Apprehension-Organization Form

Scott, McCroskey, and Sheahan (1978) generated a 20-item scale for measuring oral communication apprehension in the organizational setting. Their Personal Report of Communication Apprehension-Organization Form (PRCA-Organization Form) included items for organizational-type CA in representing the organization to other groups, answering questions at a meeting, talking to superiors and subordinates, and interviewing people. The scale had an odd-even internal reliability of 0.91. Their PRCA-Organization Form and eleven items from the PRCA-20 correlated 0.90. Even though this relationship was inflated by the fact that these scales have four items in

common, concurrent validity for these two scales was suggested (Scott et al., 1978).

The validity of the PRCA-Organization Form was partially demonstrated by showing that, as expected, the low apprehensives reported significantly more years of service in their present organizations than did high apprehensives. Scott et al. (1978) hypothesized this effect, since high apprehensives are less likely to be positively perceived as employees, and thus would be expected to be less likely to be retained or promoted in their jobs. The validity of the scale was also supported, since as predicted the high apprehensives had less desire for advancement, were less likely to expect advancement, were more likely to see themselves in positions with low communication requirements, and were more likely to prefer jobs with lower communication requirements than the low apprehensives. Therefore, Scott et al. (1978) concluded that their PRCA-Organization Form had substantial predictive validity.

Scores on the PRCA-Organization Form can range from 20 to 100 and thus the hypothetical midpoint is 60. Scott et al. (1978) reported a mean score of 50.05 and a standard deviation of 11.50 using the PRCA-Organization Form with a sample of 243 heterogeneous government

employees. The sample was heterogeneous with respect to position in the organizational hierarchy and degree of responsibility, and ranged from agency heads to custodial employees (Scott et al., 1978).

Due to administrative limitations on the length of the questionnaire, the present research used only 16 of the 20 items in the PRCA-Organization Form to measure the employees' CA level. The four items that were not chosen had the lowest item-total correlations in Scott et al. (1978). Two of the four excluded items also used the word "subordinate," and were excluded because not every employee in the sample had a subordinate.

Career Planning Workshop Evaluation Questionnaire

The Career Planning Workshop Evaluation Questionnaire was used to investigate the model. Ten scales were constructed from the questionnaire. Only the communication apprehension scale had been used in previous research. Table 1 presents the scale names, number of items in the scales, and the scale sample sizes.

Refer to Table 2 to Table 7 for the items used in this study to measure the communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities of employees. Other parts of the questionnaire sent to the employees

Table 1. Model-relevant scales used in the study

Scale name	Number of items	Scale sample size
Communication Apprehension	16	335
Job Level	1	242
Communication Requirements	1	346
Pre-workshop Job Satisfaction	11	337
Comprehensive Job Satisfaction	13	325
Hypothetical Situations Job Satisfaction	2	320
Job Search Intention Job Satisfaction	1	342
Overall Job Satisfaction	1	344
Career Change Activities	10	351
Actual Career Change	1	347

Table 2. Items in the communication apprehension scale

Direction Scored	Item
(-)	Conversing with people who hold positions of authority causes me to be fearful and tense.
(+)	People can usually count on me to keep a conversation going.
(+)	Conversing with people who hold positions of authority is something I really enjoy.
(-)	I feel self-conscious when I am called upon to answer a question or give an opinion.
(+)	I am basically an outgoing person.
(-)	When I have to represent my organization to another group, I feel very tense and nervous.
(-)	I consider myself to be the silent type.
(-)	I am afraid to express myself in a group.
(-)	When I'm with other people, I often have difficulty thinking of the right things to talk about.
(-)	I'm afraid to speak up in conversations.
(+)	In most situations, I generally know what to say to people.
(+)	I like to get involved in group discussions.
(+)	I look forward to an opportunity to speak in public.
(-)	I talk less because I am shy.
(-)	I am fearful and tense all the while I am speaking before a group of people.

Table 2. (Continued)

Direction Scored	Item
(+)	I enjoy representing my organization to other groups.

Note. The items were scored Strongly Agree=1, Agree=2, Undecided=3, Disagree=4, and Strongly Disagree=5.

Table 3. Items in the pre-workshop job satisfaction scale

Direction Scored	Item
(+)	My skills and abilities could have been applied more completely in a different type of job.
(+)	I had grown somewhat bored with my job and I needed to do something different.
(-)	My personal style was very well matched to my job.
(+)	My supervisor showed little or no concern for my career growth.
(+)	My supervisor did not really understand the skills and abilities I had to offer to this organization.
(-)	My supervisor worked closely with me to help me achieve difficult and worthwhile goals.
(-)	My immediate work group displayed a willingness to work together.
(+)	It was frustrating that my immediate work group did not have the right mix of talent and/or skills for optimal performance.
(+)	My immediate work group operated in a very disorganized way.
(+)	There was a lot of unpleasant personal conflict among the people I worked with.
(-)	My work group was well organized and functioned efficiently.

Note. The items were scored Strongly Agree=1, Agree=2, Undecided=3, Disagree=4, and Strongly Disagree=5.

Table 4. Items in the comprehensive job satisfaction scale

Direction Scored	Item
(-)	The better my work performance, the greater will be my opportunity for advancement.
(-)	Job openings are filled fairly.
(-)	My job allows me to make use of my skills & abilities.
(-)	I am satisfied with my opportunity to get a better job at Xxx.
(-)	In comparison with people in similar jobs in this area, my pay is satisfactory.
(-)	I am proud to work for Xxx.
(-)	I have an opportunity to make a difference-- to contribute to the overall success of the organization.
(-)	My pay is fair in comparison with other employees in Xxx.
(-)	I am given real opportunities to improve my work related skills in this organization.
(-)	I am satisfied with the recognition I receive for doing a good job.
(-)	My work gives me a feeling of personal accomplishment.
(-)	Overall, I am satisfied with this organization and my job.

Table 4. (Continued)

Direction Scored	Item
(-)	Training programs, such as the Career Planning Workshop reflect the organization's commitment to each employee's development.

Note. The items were scored Strongly Agree=1, Agree=2, Undecided=3, Disagree=4, and Strongly Disagree=5.

Table 5. Items in the hypothetical situations, job search intention, and overall job satisfaction scales

Scale	Item and response options
Hypothetical Situations Job Satisfaction	If you had enough money to live as comfortably as you would like for the rest of your life, would you continue to work in your present job? (2)-Yes (1)-No
Hypothetical Situations Job Satisfaction	If you could have your own way, would you like to work for Xxx five years from now? (2)-Yes (1)-No
Job Search Intention Job Satisfaction	How likely are you to make a real effort to find a new job with another employer within the next year? (1)-Definitely Will (2)-Probably Will (3)-Undecided (4)-Probably Will Not (5)-Definitely Will Not
Overall Job Satisfaction	All things considered, how satisfied are you with your job? (5)-Delighted (4)-Satisfied (3)-Undecided (2)-Dissatisfied (1)-Very Unhappy

Note. The numbers in parentheses refer to the scores given to those responses.

Table 6. Items in the job level, communication requirements, and actual career change scales

Scale	Item and response options
Job Level	What is your present job level and/or title? (fill in the blank)
Communication Requirements	To what degree does your present job require you to actively and verbally interact with others? (5)-Constantly (4)-Frequently (3)-Occasionally (2)-Infrequently (1)-Very Infrequently
Actual Career Change	Do you now hold a job which is different from the one you held when you took the Career Planning Workshop? (1)-Yes (0)-No

Note. The information in parentheses refers to how the item was scored.

Table 7. Items in the career change activities scale.

Item
Entered or reentered a formal course of study at a college or university.
Initiated any other type of study or training.
Participated in company sponsored professional development programs.
Attended a professional convention, seminar or workshop.
Joined a professional organization.
Sought out and received a promotion.
Increased the level of communication with my supervisor.
Initiated a search for a similar job in another organization.
Initiated a search for a different type of career or job in another company.
Developed new vocational/professional activities beyond the scope of my present job.

Note. The score was the number of activities the respondents marked that they had engaged in since attending the Career Planning Workshop.

were not relevant to the present study. Refer to Appendix A for a reduced copy of the cover letter and the questionnaire as mailed to the sample, with information that would identify the organization blanked out.

There were five job satisfaction scales: 1) pre-workshop job satisfaction, 2) comprehensive job satisfaction, 3) hypothetical situations job satisfaction, 4) job search intention job satisfaction, and 5) overall job satisfaction. Job satisfaction prior to attending the workshop was measured by the 11-item pre-career planning workshop job satisfaction scale. The respondents were instructed to respond to those 11 items as they related to their job prior to attending the Career Planning Workshop. The other four job satisfaction scales measured job satisfaction at the present, post-workshop, time. Since the communication apprehension, job level, communication requirements, and career change scales were post-workshop scales, the pre-workshop job satisfaction scale was not expected to fit the model as well as the post-workshop job satisfaction scales.

The 13-item comprehensive job satisfaction scale was the broadest job satisfaction scale. That scale dealt with satisfaction with opportunities for promotions, using and improving one's skills and abilities, pay satisfaction,

personal rewards from work, and satisfaction with the organization. The two items in the hypothetical situations job satisfaction scale asked the respondents if they would continue to work their present job if they did not need the money, and if they would like to work for the same company five years from now. The one-item job search intention job satisfaction scale asked how likely the employee was to really try to find a new job with another employer, within the next year. The one-item overall job satisfaction scale was a general job satisfaction scale.

In terms of Kirkpatrick's (1959) levels of criteria, the scales used to measure career change activities assessed both behavior and results, while the job satisfaction scales assessed results criteria. The 10 items in the career change activities scale asked the respondents to indicate the career change activities they had engaged in since attending the Career Planning Workshop, and thus measured behavior criteria. The actual career change scale asked if the respondents held a different job from the one they had when they took the workshop, and thus measured results criteria.

Procedure

After securing approval to conduct the study in the organization, the Career Planning Workshop Evaluation

Questionnaire and the cover letter was sent, early in July 1985, to all 601 employees who had gone through the Career Planning Workshop and could be located using workshop records. The cover letter explained the purpose of the evaluation, assured the potential respondents that their answers would be anonymous, stated that it would take about 30 minutes to complete the questionnaire, and thanked the respondents for participating. The questionnaires were returned, coded, and ready for analysis by late September 1985. The number of usable questionnaires returned was 351, for a response rate of 58.2%.

Demographic Information on the Respondents

Table 8 presents the demographic-type questions that the respondents answered. Table 9 presents descriptive statistics on the continuous demographic-type items. Almost half of the respondents, 49%, had participated in the workshop two to three years prior to the time the questionnaire was answered. Slightly over half of the respondents, 52.2%, were male. The modal age of the respondents was 30 to 40. They had an average tenure of 11.2 years in the organization and 5.0 years on their present job. Of the respondents 22.5% were managers/supervisors, 11.4% were administrative/service

Table 8. Demographic-type items

Scale	Item and response options
Time	How long has it been since you participated in the Career Planning Workshop? __Less than six months __Six to twelve months __One to two years __Two to three years __More than two years
Sex	Your gender? __Male __Female
Age	Your age? __Less than 30 __30 to 40 __40 to 50 __50 to 60 __Greater than 60
Company tenure	How many years have you been employed here? _____
Job tenure	How many years have you been employed in your present job? _____
Job type	Which of the following best describes the kind of work you do? __Manager/Supervisor __Administrative/Service staff __Administrative support __Technical/R&D staff __Technical support __Other _____
Number supervised	If you are a supervisor, how many people do you directly supervise? _____
Payroll status	What is your payroll status? __Monthly __Hourly __Weekly
Education level	What is the highest level of education you attained? __Less than high school __High school __Technical or trade school __Some college coursework __Associates degree or equivalent __Bachelors degree __Masters degree __Doctorate

Table 9. Descriptive statistics on the continuous demographic-type items

Scale	N	Mean	Median	Mode	Range	Standard Deviation
Company Tenure	342	11.2	9	8	37	6.7
Job Tenure	321	5.0	4	1	55	5.2
Number Supervised	106	6.5	4.5	4	80	9.6

staff, 18.6% were administrative support, 18.6% were technical R&D staff, and 25.4% were technical support. The 106 respondents who were supervisors directly supervised an average of 6.5 employees. Almost all of the respondents were on a monthly, 62.5%, or weekly, 36.9%, payroll status. Their modal highest level of educational attainment, 38.1%, was a bachelors degree; 19.9% had a masters and 6.6% had a doctorate.

Reliability

Table 10 presents the reliability coefficients for all scales having two or more items. These reliabilities are in the form of Cronbach's Alpha. As expected, the 16-item communication apprehension scale had a reasonably high Alpha of 0.904. The pre-workshop job satisfaction scale had an Alpha of 0.842, while the comprehensive job satisfaction scale had an Alpha of 0.892. The hypothetical situations job satisfaction scale with two items had the lowest Alpha at 0.450. The 10 items in the career change activities scale had a modest Alpha of 0.648. That modest reliability is not surprising since those items were intended to measure multiple aspects of career change activities. All of the item-total correlations were significant at the 0.0001 level.

Table 10. Coefficient Alphas for the multi-item scales

Scale	Alpha	Number of items
Communication Apprehension	0.904	16
Pre-workshop job satisfaction	0.842	11
Comprehensive job satisfaction	0.892	13
Hypothetical situations job satisfaction	0.450	2
Career change activities	0.648	10

V. RESULTS

Overview

All statistical analyses reported in this section were performed using the SAS 1982 version 3 (SAS Institute Inc., 1982a, 1982b), SPSS release 8 (Hall & Nie, 1979), and LISREL V (Joreskog & Sorbom, 1981) software packages. The analyses of the Career Planning Workshop data to evaluate the model, first looked at the model-relevant correlations between the scales. Since the model has job satisfaction predicted as being significantly related to three other parts of the model, the regression results for job satisfaction are then reported. Since most of the constructs in the model were measured by more than one measure, the final part of the analysis involved using structural relationships analysis to evaluate the model.

Descriptive Statistics

Table 11 presents descriptive statistics on all of the model-relevant scales, except for the dichotomous, one-item actual actual career change scale. The communication apprehension and communication requirements scales were standardized to a mean of zero and a standard deviation of one, in order to facilitate estimating their interaction. Descriptive statistics are also presented

Table 11. Descriptive statistics for the model-relevant scales

Scale	N	Mean	Median	Range	Standard Deviation
Communication Apprehension	335	0.0	-0.1	5.3	1.0
Communication Requirements	346	0.0	0.7	4.7	1.0
Job Level	242	6.0	5	13	2.7
Pre-workshop Job Satisfaction	337	34.0	34	42	7.9
Comprehensive Job Satisfaction	325	44.6	46	48	8.7
Hypothetical Situations Job Satisfaction	320	3.0	3	4	0.7
Job Search Intention Job Satisfaction	342	3.6	4	4	1.1
Overall Job Satisfaction	344	3.6	4	4	0.9
Career Change Activities	351	2.7	3	10	2.1
Non-standardized Communication Apprehension	335	39.1	38	54	10.0
Non-standardized Communication Requirements	346	4.3	5	4	0.8

for the non-standardized communication apprehension and communication requirements scales. Only the standardized CA and communication requirements scales were used in the study. Due to administrative limitations only 80%, 16 of the 20 items, of the Personal Report of Communication Apprehension-Organization Form was used in the study. The mean non-standardized CA score of the sample was approximately 80% of the mean score reported by Scott et al. (1978), 50.05, using all 20 items. Therefore, the incidences of CA in the samples appeared to be similar.

For the dichotomous actual career change scale, 55.6% of the respondents reported that they held a different job from the one they had when they attended the Career Planning Workshop. For one of the dichotomous hypothetical situations job satisfaction items, 69.1% reported that they would continue to work at their present job if they had enough money to live as comfortably as they would like for the rest of their life. For the other hypothetical situations job satisfaction item, only 28.1% would like to work for the organization five years from now, if they could have their own way.

Correlational Results

Pearson product-moment correlations were performed to discover the relationships among the scales. A full

correlation matrix for the scales used in the present research is in Appendix B. See Table 12 for the correlational results for the communication apprehension scale. Overall, CA was significantly correlated in the expected direction (negative) to seven of the eight scales it was predicted to be related to. All of the correlations were low. Only the job search intention satisfaction scale was not significantly correlated with CA. Thus CA was significantly correlated with the communication requirements of the job scale, with four of the five job satisfaction scales, and with both of the career change activities scales. As predicted by the hypothesized model, the CA scale was not significantly correlated with the job level scale.

Table 13 presents the correlations for the communication requirements of the job scale with the job satisfaction scales and the job level scale. Overall, the effect of communication requirements was significant and in the expected direction (positive) for four of the five job satisfaction scales. Again, all of the correlations were low. Communication requirements was significantly correlated with all of the job satisfaction scales, except for the hypothetical situations job satisfaction scale. Contrary to the model, the communication requirements

Table 12. Correlations between the communication apprehension scale and the job level, communication requirements, job satisfaction, and career change scales.

	Scales		
	Job Level	Communication Requirements	Pre-workshop Job Satisfaction
CA	-0.0286 - 0.6647 232	-0.1464 - 0.0073 334	-0.1923 (-0.2202) 0.0005 325
	Comprehensive Job Satisfaction	Hypothetical Situations Job Satisfaction	Job Search Intention Job Satisfaction
CA	-0.1942 (-0.2161) 0.0005 314	-0.1697 (-0.2658) 0.0029 307	-0.0813 - 0.1412 329
	Overall Job Satisfaction	Career Change Activities	Actual Career Change
CA	-0.1396 - 0.0111 330	-0.1693 (0.2211) 0.0019 335	-0.1167 - 0.0332 333

Note. CA is the communication apprehension scale. Cells contain the uncorrected correlations, in parenthesis the correlations corrected for unreliability for multi-item scales, the probabilities that the correlations are zero, and the number of cases.

Table 13. Correlational results for communication requirements with the job satisfaction scales and the job level scale

	Scales	
	Pre-workshop Job Satisfaction	Comprehensive Job Satisfaction
Communication Requirements	0.1626 0.0028 337	0.1988 0.0003 323
	Hypothetical Situations Job Satisfaction	Job Search Intention Job Satisfaction
Communication Requirements	0.0490 0.3842 317	0.1385 0.0105 340
	Overall Job Satisfaction	Job Level
Communication Requirements	0.2295 0.0001 341	-0.1032 0.1100 241

Note. Cells contain the correlation, the probability that the correlation is zero, and the number of cases.

scale was not significantly correlated with the job level scale in the expected positive direction.

Table 14 presents the correlational results for the career change scales with the job satisfaction scales. The model predicted a weak or nonexistent relationship between these scales. Only three of the 10 correlations were significant.

Although not part of the model, the correlational results for the job level scale with the job satisfaction scales are presented in Table 15 for theoretical interest. Contrary to much previous research none of the five correlations were significant.

Regression Results

Since the hypothesized model has job satisfaction predicted as being significantly related to three other parts of the model, SAS regression procedure REG (SAS Institute Inc., 1982b) was used to assess the effects of communication apprehension, communication requirements, and their standardized interaction on the job satisfaction scales. A manual backward elimination procedure was performed. For each job satisfaction scale the full model was run, then, if necessary, non-significant term(s) were removed from the model. See Tables 16 to 20 for the effects of the predictors on the job satisfaction scales,

Table 14. Correlational results for the career change scales with the job satisfaction scales

	Scales		
	Pre-workshop Job Satisfaction	Comprehensive Job Satisfaction	Hypothetical Situations Job Satisfaction
Actual Career Change	-0.0857 - 0.1169 336	0.1827 - 0.0010 323	0.0964 - 0.0861 318
	Job Search Intention Job Satisfaction	Overall Job Satisfaction	
Actual Career Change	0.0564 - 0.2995 340	0.1777 - 0.0010 342	

	Pre-workshop Job Satisfaction	Comprehensive Job Satisfaction	Hypothetical Situations Job Satisfaction
Career Change Activities	0.0219 (0.0296) 0.6877 337	0.0364 (0.0478) 0.5125 325	-0.0655 (-0.1212) 0.2425 320

Table 14. (Continued)

	Scales	
	Job Search Intention Job Satisfaction	Overall Job Satisfaction
Career Change Activities	-0.1623 - 0.0026 342	0.0071 - 0.8947 344

Note. Cells contain the uncorrected correlations, in parenthesis the correlations corrected for unreliability for multi-item scales, the probabilities that the correlations are zero, and the number of cases.

Table 15. Correlational results for the job level scale with the job satisfaction scales

	Scales		
	Pre-workshop Job Satisfaction	Comprehensive Job Satisfaction	Hypothetical Situations Job Satisfaction
Job Level	0.0815 0.2128 235	0.0335 0.6156 227	-0.0039 0.9540 220
	Job Search Intention Job Satisfaction	Overall Job Satisfaction	
Job Level	-0.0618 0.3418 238	0.0697 0.2847 237	

Note. Cells contain the correlation, the probability that the correlation is zero, and the number of cases.

Table 16. Full and final model regression results for the pre-workshop job satisfaction scale

Variable	Unstandardized Beta Weight	Standardized Beta Weight	Probability
	FULL MODEL		
Intercept	34.1177	0.0000	0.0001
Communication Apprehension (CA)	-1.3231	-0.1686	0.0024
Communication Requirements (CR)	1.1974	0.1517	0.0070
CA X CR	0.2057	0.0254	0.6465
5.86% of variance accounted for, not corrected for unreliability			
7.68% of variance accounted for, corrected for unreliability			
	FINAL MODEL		
Intercept	34.0882	0.0000	0.0001
CA	-1.3447	-0.1714	0.0019
CR	1.1553	0.1463	0.0078
5.80% of variance accounted for, not corrected for unreliability			
7.60% of variance accounted for, corrected for unreliability			

Table 17. Full model regression results for the comprehensive job satisfaction scale

Variable	Unstandardized Beta Weight	Standardized Beta Weight	Probability
Intercept	44.4938	0.0000	0.0001
Communication Apprehension (CA)	-1.5523	-0.1771	0.0016
Communication Requirements (CR)	1.5373	0.1705	0.0024
CA X CR	-1.0033	-0.1090	0.0493

8.25% of variance accounted for, not corrected for unreliability

10.21% of variance accounted for, corrected for unreliability

Table 18. Full and final model regression results for the hypothetical situations job satisfaction scale

Variable	Unstandardized Beta Weight	Standardized Beta Weight	Probability
	FULL MODEL		
Intercept	2.9926	0.0000	0.0001
Communication Apprehension (CA)	-0.1390	-0.1794	0.0019
Communication Requirements (CR)	0.0076	0.0102	0.8596
CA X CR	-0.0954	-0.1251	0.0301
4.49% of variance accounted for, not corrected for unreliability			
11.01% of variance accounted for, corrected for unreliability			
	FINAL MODEL		
Intercept	2.9924	0.0000	0.0001
CA	-0.1403	-0.1811	0.0015
CA X CR	-0.0968	-0.1269	0.0250
4.48% of variance accounted for, not corrected for unreliability			
10.99% of variance accounted for, corrected for unreliability			

Table 19. Full and final model regression results for the the job search intention job satisfaction scale

Variable	Unstandardized Beta Weight	Standardized Beta Weight	Probability
	FULL MODEL		
Intercept	3.6582	0.0000	0.0001
Communication Apprehension (CA)	-0.0834	-0.0712	0.2022
Communication Requirements (CR)	0.1448	0.1261	0.0258
CA X CR	-0.0742	-0.0631	0.2610
2.93% of variance accounted for, not corrected for unreliability			
	FINAL MODEL		
Intercept	3.6792	0.0000	0.0001
CR	0.1597	0.1385	0.0105
1.92% of variance accounted for, not corrected for unreliability			

Table 20. Full model regression results for the overall job satisfaction scale

Variable	Unstandardized Beta Weight	Standardized Beta Weight	Probability
Intercept	3.6284	0.0000	0.0001
Communication Apprehension (CA)	-0.1201	-0.1217	0.0249
Communication Requirements (CR)	0.1977	0.2022	0.0003
CA X CR	-0.1298	-0.1301	0.0171

8.65% of variance accounted for, not corrected for unreliability

before removing the non-significant terms from the regression equations (full model) and after removing the non-significant terms from the regression equations (final model). These tables report the percent of variance accounted for, both uncorrected and also corrected for unreliability, in the case of job satisfaction scales with more than one item.

CA was significant for all of the job satisfaction scales, except for the job search intention job satisfaction scale. CA had negative Beta weights in the regression models, for all five job satisfaction scales, as predicted.

Communication requirements was significant for four of the five job satisfaction scales. It was not significant for the hypothetical situations job satisfaction scale. Communication requirements had positive Beta weights in the regression models, for all five job satisfaction scales, as predicted.

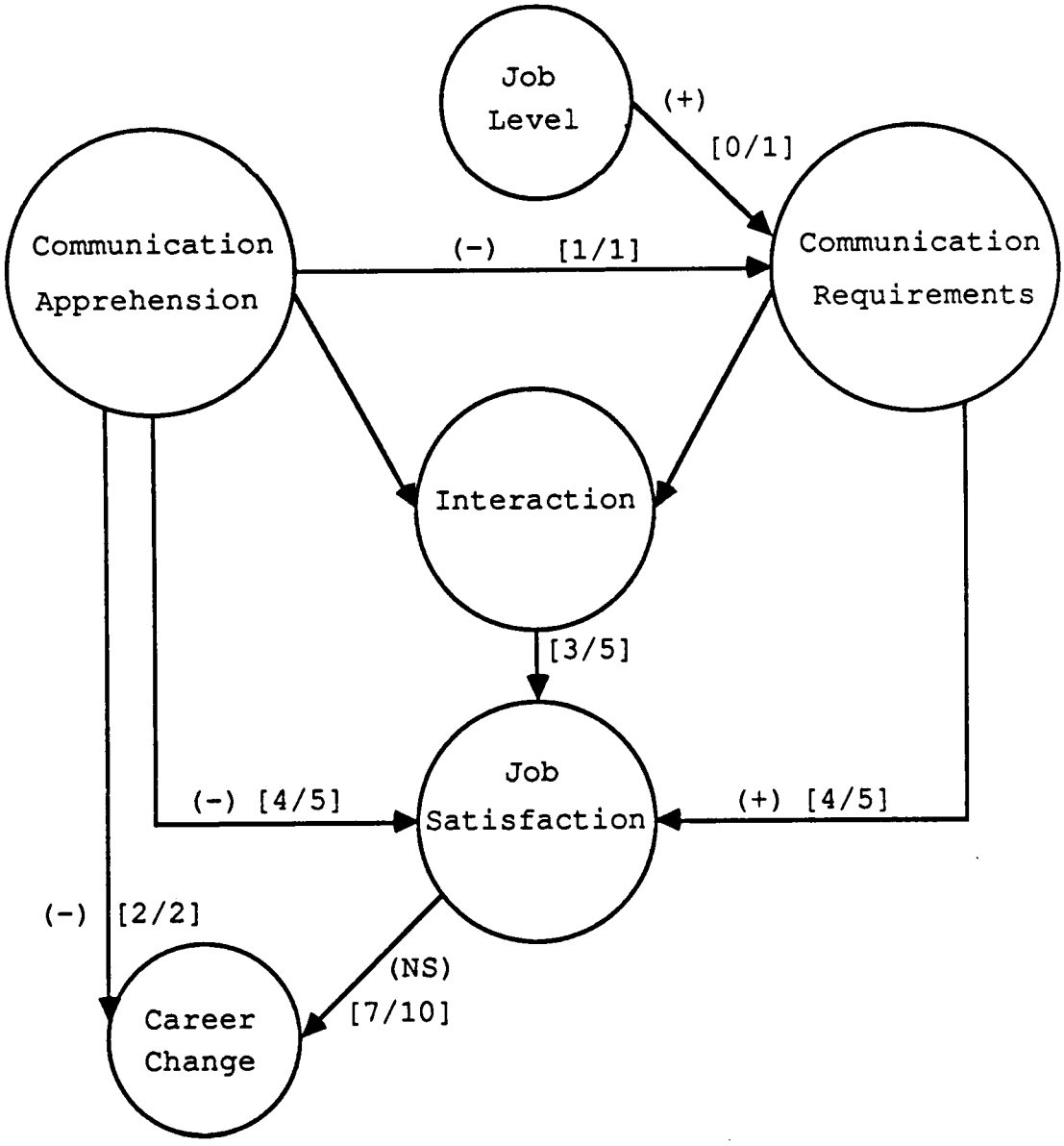
The interaction of CA and communication requirements was significant for three of the five job satisfaction scales. The interaction was not significant for the pre-workshop job satisfaction scale or for the job search intention job satisfaction scale.

Figure 2 presents the overall pattern of correlational and regression results, for the model of the present research. The results are consistent with the hypothesized model.

LISREL Results

Since most of the constructs in the hypothesized model were measured by more than one measure, LISREL V (Joreskog & Sorbom, 1981) was the next step in the data analysis. As recommended by James, Mulaik, and Brett (1982), the structural relationships measurement model was solved separately from the structural equation model. The measurement model relates the observed variables to the unobserved (latent) variables. The structural equation model interrelates latent variables.

In order to make the measurement model solvable, communication apprehension was measured by the 16 communication apprehension items, and career change activities were measured by 11 dichotomous items. Those 11 items were the one-item actual career change scale and the 10-item career change activities scale. Job level was measured by the single job level item. Communication requirements was measured by the one-item communication requirements scale. Job satisfaction was measured by the five job satisfaction scales. The interaction of CA and



(+) a predicted positive relationship

(-) a predicted negative relationship

(NS) a predicted weak or non-significant relationship

[x/y] proportion of relationships as predicted

Figure 2. Overall pattern of correlational and regression results for the model

communication requirements was the product of those two standardized scales.

The LISREL model used had two unobserved exogenous (Xi) variables and four unobserved endogenous (Eta) variables. Communication apprehension and job level were the exogenous variables. Communication requirements, the interaction of CA and communication requirements, job satisfaction, and career change were the endogenous variables. There were 17 observed X (independent) variables in the model and 18 observed Y (dependent) variables in the model. Only one Xi variable and two Eta variables were associated with just one manifest variable.

LISREL V unweighted least squares provided the measurement model values for the lambdas and the thetas. Those values were used as constants in the structural equation model. Table 21 presents the lambdas that were obtained. The lambdas are the factor pattern matrixes relating measures of the observed variables to the unobserved variables. The thetas are the variance/covariance matrixes of the observed variables' residuals.

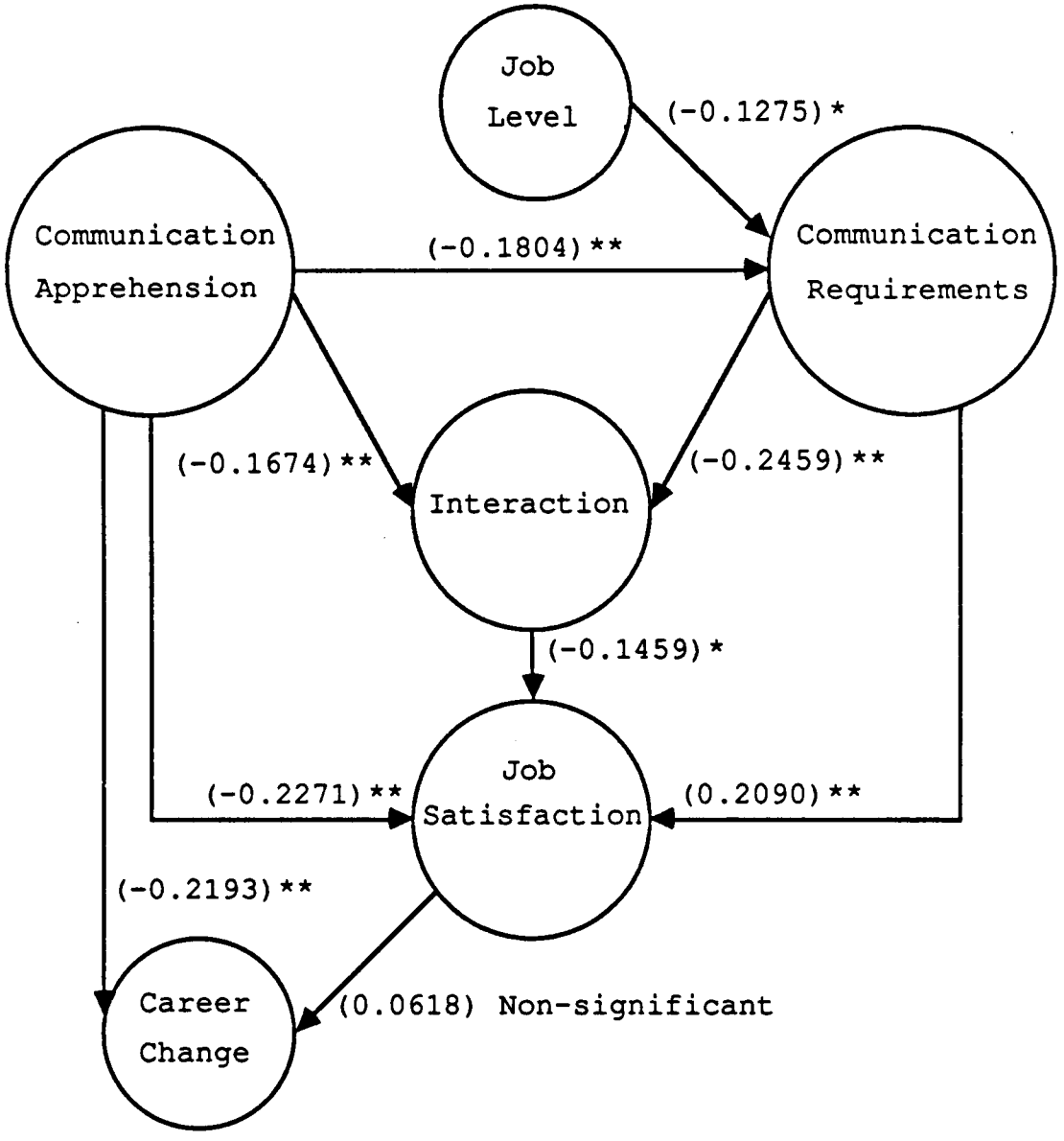
Figure 3 presents the maximum likelihood path weights, both the Gammas and the Betas, associated with

Table 21. LISREL measurement model Lambda weights

Observed Variable	Lamdba
Communication Apprehension	
Conversing with ... fearful and tense.	0.5710
People can usually	0.5003
Conversing with ... I really enjoy.	0.5668
I feel self-conscious	0.6793
I am basically an outgoing person.	0.5684
When I have to ... tense and nervous.	0.6481
I consider myself to be	0.5833
I am afraid to	0.6689
When I'm with other people, ...	0.6368
I'm afraid to speak up	0.6698
In most situations, I generally	0.5478
I like to get involved	0.5409
I look forward to an opportunity	0.6434
I talk less because I am shy.	0.6822
I am fearful and tense	0.6271
I enjoy representing	0.6511
Job Level	0.8999
Communication Requirements	0.9061
Pre-workshop Job Satisfaction	0.5260
Comprehensive Job Satisfaction	0.8512

Table 21. (Continued)

Observed Variable	Lambda
Hypothetical Situations Job Satisfaction	0.4968
Job Search Intention Job Satisfaction	0.3216
Overall Job Satisfaction	0.6995
Career Change Activities	
Entered or reentered a formal course	0.3285
Initiated any other type	0.2860
Participated in company	0.5275
Attended a professional convention, ...	0.5456
Joined a professional organization.	0.5630
Sought out and received a promotion.	0.4909
Increased the level of communication	0.3709
Initiated a search for a similar job	0.1732
Initiated a search for a different	0.1133
Developed new vocational/professional	0.3708
Actual Career Change	0.2254



* $P<0.05$ ** $P<0.01$

Figure 3. LISREL maximum likelihood path weights

the structural equations model. All of the path weights predicted by the hypothesized model to be significant, had t values significant to at least the 0.05 level for 351 degrees of freedom. All four path weights involving CA were negative and had t values significant at the 0.01 level. Except for the path weight from CA to the interaction variable, the direction of which was not predicted, all of those path weights were predicted by the hypothesized model to be negative. The path weight from communication requirements to job satisfaction was positive as predicted, and significant at the 0.01 level. The path weight from communication requirements to the interaction variable was negative, its direction was not predicted, and was significant at the 0.01 level. The path weight from the interaction variable to job satisfaction was negative, its direction was not predicted, and significant at the 0.05 level. All of the path weights whose direction were predicted by the hypothesized model, had t values that were significant at least to the 0.05 level. The path weight from job level to communication requirements was negative and significant at the 0.05 level. However, it was predicted by the hypothesized model to be positive.

Using the structural equation LISREL results, Figure 4 presents a plot of job satisfaction in standardized units as a function of CA and communication requirements. The most satisfied employees had low CA and were in jobs with high communication requirements.

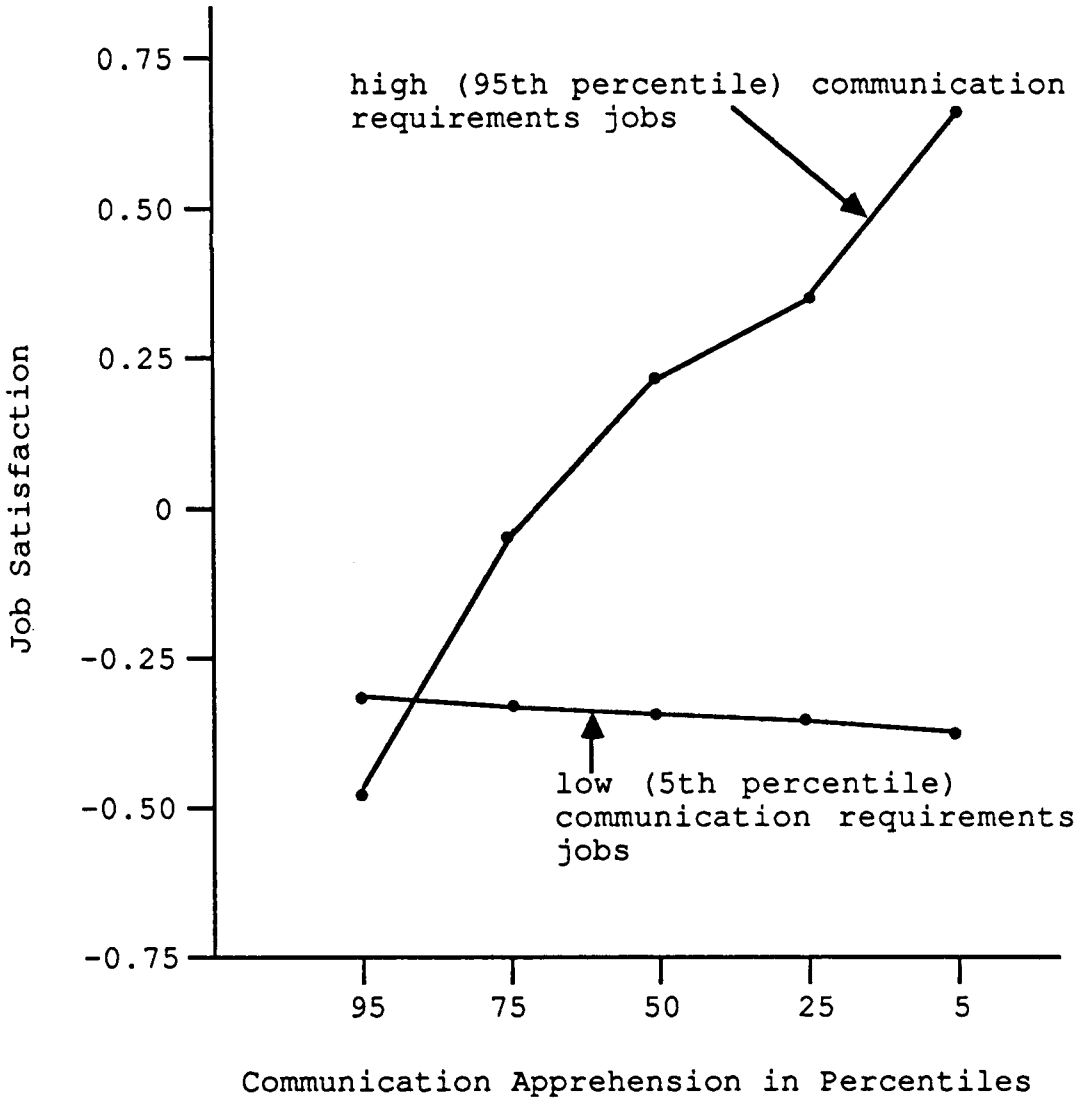


Figure 4. LISREL job satisfaction in standardized units as a function of communication apprehension and communication requirements

VI. DISCUSSION

Major Limitations of the Study

The major limitations of the study involve the samples and the scales used. It is unknown how representative the sample of employees attending the Career Planning Workshop were of the organization as a whole. Demographic information on the organization as a whole was unavailable to the researcher. It is also unknown how representative the respondents were, of the employees who attended the workshop. Differential mortality among the employees who attended the workshop could affect the results. Problems such as those are common in survey research. The respondents ranged from level two to level 15 in the organization, so there appeared to be a broad range of respondents.

Except for the communication apprehension scale, all of the scales used in the present research were new scales of unknown reliability and validity. However, only for the two-item hypothetical situations job satisfaction scale was a low coefficient Alpha found among the multi-item scales. That low reliability may be mainly due to that scale having only two dichotomous items, and not be a reflection on the quality of the items. The other

multi-item job satisfaction scales had coefficient Alphas greater than 0.80.

All of the one-item scales had high face validity. The pattern of results was nearly the same for the highly face valid, one-item actual career change scale as for the 10-item career change activities scale. In that the job level scale asked for factual, demographic-type information, there is no reason to assume that it was an unreliable item. If the respondents did not know what their job level was, or if they did not wish to answer the question, they could leave the answer blank. In fact, 109 of the 351 respondents did not answer the question.

The data for the present study was collected at only one point in time. Therefore it was not possible to precisely investigate longitudinal-type questions, such as the movement of employees since attending the workshop. Also, the Career Planning Workshop Evaluation Questionnaire did not ask the respondents how many promotions they had received since attending the workshop.

Tests of Hypotheses

Hypothesis 1 predicted a negative relationship between communication apprehension and job satisfaction. This hypothesis was supported by the correlational, regression, and LISREL results. Only for the job search

intention satisfaction scale was the expected negative relationship not found in the correlational results. The job search intention satisfaction scale was scored in the direction of job satisfaction. As scores on the scale increased, the probability of looking for a new job decreased and job satisfaction increased.

Perhaps the high apprehensives were not less satisfied on the job search intention satisfaction scale than the low apprehensives (i.e. were not more likely to anticipate looking for a new job) because they knew that they had found their place in the workplace. Looking for a new job in a new company may involve new verbal interactions with people. The high apprehensives may not have been more likely to look for a new job, in spite of their low job satisfaction on the other job satisfaction scales, because it would be too threatening for them.

Contrary to hypothesis 2, there was a significant and negative path weight from job level to communication requirements. Higher level jobs had lower communication requirements than lower level jobs. There was a significant and positive path weight from communication requirements to job satisfaction as predicted by hypothesis 3.

There may be something unusual about the organization, that explains the significant and negative path weight from job level to communication requirements. The demographic scale number supervised asked, "If you are a supervisor, how many people do you directly supervise?" There was, contrary to expectations, a nonsignificant correlation ($r = -0.0063$) between communication requirements and number supervised. The organization's primary mission includes research. Thus the organization may include many high apprehensive research and development people, with jobs that have relatively low verbal communication requirements, but are at relatively high levels of the organization. A compensation system with parallel ladders for management and for research/development employees could explain that finding. That possibility could also explain the negative path weight from job level to communication requirements.

Hypothesis 4 predicted a negative relationship between communication apprehension and communication requirements. Both the correlational and structural relationships results supported that hypothesis. Significant and negative correlational and structural relationships were found between CA and communication requirements.

Hypothesis 5 predicted that the interaction of CA and communication requirements of jobs would be related to job satisfaction. The regression and LISREL analyses make it possible to comment on the interaction of CA and communication requirements of jobs, affecting the job satisfaction scales. The interaction was significant in the regression results for three of the five job satisfaction scales. In the LISREL results, the path weight from the interaction variable to job satisfaction was significant as predicted.

In the regression results only the pre-workshop job satisfaction scale and the job search intention satisfaction scale was not significant. The Career Planning Workshop Evaluation Questionnaire measured the CA and the communication requirements concurrently experienced by the respondents. The pre-workshop job satisfaction scale asked the respondents to respond how much certain statements related to their jobs prior to attending the workshop. Since two different time frames were dealt with, it was not surprising that the interaction did not significantly predict pre-workshop job satisfaction. The 11-item pre-workshop job satisfaction scale had a coefficient Alpha that was only 0.050 lower than the Alpha for the 13-item comprehensive job

satisfaction scale. Therefore, the nonsignificant results for pre-workshop job satisfaction do not appear to be due to the pre-workshop job satisfaction scale having a low reliability.

The one-item in the job search intention satisfaction scale asked, "How likely are you to make a real effort to find a new job with another employer within the next year?" CA was not significantly related to that job satisfaction scale, but communication requirements was significantly related to the scale. Looking for a new job with another employer may be too threatening for high apprehensives. It appears that the job search intention satisfaction scale was tapping a dimension of job satisfaction that the interaction part of the model did not apply to. The job search intention satisfaction scale could almost be considered to be a career change activity, except for being more future oriented and speculative than the items included under career change activities. Those items focused on activities engaged in by the respondents since attending the Career Planning Workshop.

Figure 4 on page 110 shows that jobs with low communication requirements were associated with low job satisfaction regardless of CA. High communication apprehensives were associated with low job satisfaction

regardless of the communication requirements of their jobs. Employees most likely to be satisfied had jobs with high communication requirements and had low to moderate CA.

Hypothesis 6 predicted a negative relationship between CA and career change activities. The hypothesis was supported by the correlational, regression, and structural relationships results.

The results suggested that even though the high apprehensives had less job satisfaction than the low apprehensives, they did not take actions directed at changing their careers. Only three of the ten correlations between the job satisfaction scales and the career change scales were significant. In the LISREL results, the path weight from job satisfaction to career change activities was not significant, consistent with hypothesis 7. Career change activities may typically involve new verbal interactions, and thus may be threatening to high apprehensives.

The Relationship Between Job Level and Job Satisfaction

Although not part of the hypothesized model, none of the five correlations betwen job level held and the job satisfaction scales were even close to being significant. Given the fact that job level has consistently been shown

to be positively related to job satisfaction in a large number of studies (see Vroom, 1964; Locke, 1976), this result was particularly puzzling until the LISREL analysis was complete. By comparing broad groupings of jobs (clerical, sales, managerial and executive, professional, etc.), previous studies may have confounded occupational category with job level held. The GS-type measure of job level that was used, should have reduced that potential problem and been a usable measure of job level.

Another possibility could explain the nonsignificant correlations between job level and the job satisfaction scales. Due to recent, drastic changes in the organization's top management and policies, higher level employees in particular may be less satisfied than they would be otherwise, thus reducing the correlations between job level and the job satisfaction scales to nonsignificance. Within two years of the time the survey was sent out, the private corporation that had managed and operated the research organization had been replaced by another corporation. Also, one major division of the research organization was being put on a standby status.

Implications and Applications From the Data

The present study found a negative relationship between communication apprehension and job satisfaction, a

negative relationship between CA and communication requirements, a negative relationship between CA and career change activities, a negative relationship between job level and communication requirements, a positive relationship between communication requirements and job satisfaction, and a non-significant relationship between job satisfaction and career change activities. CA and communication requirements also interacted in being related to job satisfaction. In general the results were consistent with the model.

The low job satisfaction of high apprehensives has implications for organizations. Organizational resources could justifiably be directed to helping high apprehensive employees, with the goal of increasing their job satisfaction. Several techniques are available that may help high apprehensives reduce their CA level. The monetary and time resources required by some of these techniques may be minimal, compared to the benefits, both to individuals and to organizations, of using them. Increases in job satisfaction and promotability may be expected from reducing the CA level of high apprehensive employees.

Systematic desensitization is the most often mentioned technique, that has been used to reduce CA in

individuals. When using this technique high apprehensives are exposed to a hierarchy of relevant stimuli, while at the same time associating each exposure with deep muscle relaxation. Thus the high apprehensives are taught to relax in the presence of anxiety producing stimuli, such as imagining giving a public speech (Glaser, 1981).

Using systematic desensitization McCroskey, Ralph, and Barrick (1970) found no significant outcome differences between speech anxious subjects treated by lay trainers and those treated by a counseling psychologist. Lay trainers may be trained in a single day at low cost. After the small initial investment for equipment and training of trainers, the total cost for desensitization per individual, in 1972 dollars, can be less than ten dollars (McCroskey, 1972).

The results suggest that increasing the communication requirements of jobs may also increase job satisfaction, but not for high apprehensive employees. This may be a form of job enrichment. Therefore in addition to making available treatment programs to reduce CA, for currently employed high apprehensives, it may also be desirable for organizations to increase the communication possibilities, but not the communication requirements, of jobs with low communication requirements.

Negative relationships were found between CA and career change activities and between CA and job satisfaction. Mortality since the Career Planning Workshop makes it difficult to determine exactly what those results mean, when taken together.

It may be to the organization's advantage, in terms of increasing the job satisfaction of employees, to use a screening device, such as interviews or the Personal Report of Communication Apprehension-Organization Form, to assess the CA level of job applicants and to select more low apprehensives. High apprehensives who are selected, could be placed in jobs with low communication requirements until they have been treated. After successful treatment they would be ready for jobs with high communication requirements. A negative relationship between CA and communication requirements was found in the present study, so organizational selection and/or self selection appeared to occur in the sampled organization. Current employees with high communication apprehension could be given the option of taking treatment to reduce their CA level. Reducing the CA level of current apprehensive employees, may increase the pool of promotable employees for the organization and open up the

doors to more rewarding, higher status jobs for currently employed high apprehensives.

Implications Beyond the Data

The following implications go beyond the results of the present study, but are logical extensions of the present research and the relevant literatures. Communication is an important process in managerial effectiveness. High communication apprehension has been repeatedly demonstrated to interfere with an individual's communication transactions. High apprehensives may decrease organizational effectiveness. Such a result would be expected especially when high apprehensives hold decision making and/or information processing positions. High apprehensives may be reluctant to engage in the communication transactions necessary to perform in those types of positions. They may try to avoid situations in which they will be forced to communicate orally. When high apprehensives are unable to avoid those situations, they may try to withdraw from the situation as soon as possible and/or verbally participate as little as possible in the situation. However, few high apprehensives would be expected to have jobs with high communication requirements in most organizations. The results of the present study support that expectation, for the organization sampled.

Few organizations have taken steps to help their employees overcome CA, even though CA appears to be a barrier to effective communication in organizations. This oversight may be explained by the fact that the CA literature appears in journals that are not commonly read by managers (McCroskey & Richmond, 1979). If high apprehensives account for 20% of the population in the United States, in all age groups, as claimed by McCroskey (1977), then CA can present a serious problem to organizational communication. The negative impact on organizations of 20% of their employees having a communication problem, with serious side effects, may be staggering. This problem occurs even though high apprehensives generally go unnoticed in the general society. More CA studies need to be done in real organizations.

The dissatisfaction of high apprehensives may have negative effects on intra-organizational and inter-organizational relationships, as well as on clients and customers of organizations. Hearing and/or seeing a dissatisfied peer may have a negative effect on the job satisfaction of other employees. Dissatisfied, high apprehensives in an organization could act almost like a disease and impair the job satisfaction and functioning of

fellow employees. The same process may occur when a dissatisfied, high apprehensive employee interacts with a member of another organization, or with a client or customer. The disease may be treatable.

Areas in Need of Further Investigation

The results of the present study brought up many new questions for future research efforts. The present researcher started the current investigation mainly interested in the communication apprehension construct. As the data was being analyzed the communication requirements of jobs became more and more interesting.

Why did over 90% of the respondents report that their jobs required them to "constantly" or "frequently" actively and verbally interact with others. Was the communication requirements item poorly written, was the item too global, were more items needed, or did the respondents correctly answer the item. Perhaps some kind of social desirability response bias was at work, since jobs with higher communication requirements generally have higher status than jobs with low communication requirements. The respondents could have felt social desirability pressure to inflate the communication requirements of their job. Alternatively, employees who perceived their job as having high verbal communication

requirements, regardless of the actual requirements, may have been more likely to attend the Career Planning Workshop.

Depending on the type of job held, employees may be able to moderate the verbal communication requirements of their job to match their CA level. That possibility deals with a moderator-type variable, job type, that could affect how employees respond to a communication requirements scale. In certain types of jobs, employees may have more freedom to talk more or less, depending on their personal preference, than in other types of jobs. Non-management employees probably have more freedom to talk less than the job officially requires, than do management employees.

If employees can moderate the verbal communication requirements of their job to match their CA level, how does that moderation affect their job performance, both actual and perceived. One of the things that makes an employee promotable may be more job relevant verbal communication than the job officially requires. Hopefully the quality of job relevant verbal communication is more important than the sheer quantity.

A GS-type measure of job level held did not appear to be optimal for the purposes of the present research.

Employees at the bottom of an organization do not directly supervise any employees, first level supervisors may supervise the most employees, and employees at each successive level above first level supervisor may directly supervise fewer and fewer employees. That possibility could explain the nonsignificant correlation between job level and communication requirements in the present research.

A job level-type scale could still be used in an extension of the present research. The scale could assess how many levels below a given job, in terms of the organization chart, an employee's job level is. After validation for communication requirements, this job level-type scale could provide a factual, demographic-type measure of communication requirements.

Job performance issues were not addressed by the present research. It would be expected that high apprehensive employees will not only prefer jobs with low communication requirements, but will also do better in those jobs than they would in jobs with high communication requirements. High apprehensives in jobs with high communication requirements may adversely affect the flow of organizational communication, and thus have lower job performance than low apprehensives. High apprehensive

managers may have better job performance with high apprehensive employees and/or employees in jobs with low communication requirements. Those managers may have an easier time identifying with those employees and/or jobs.

Job performance style could differ as a function of CA level. High apprehensives may try to do their job on their own, and be less likely to seek advice and training from their supervisors and peers than low apprehensives. High apprehensive managers could be more efficient timewise in verbal communication, than low apprehensive managers, in order to reduce the amount of time they have to spend talking.

Performance appraisal type issues also need to be researched, especially since so little CA research has been done in actual organizations. High apprehensives in leadership positions could be perceived negatively. Such qualities as leadership, competence, credibility, power, and friendliness could be adversely affected by being a high apprehensive leader.

Turnover is very expensive for organizations. Previous research (Scott et al., 1978) found that public employees with low CA had 50% more tenure than high apprehensives. That research needs to be expanded to

investigate if treatment to reduce CA will also reduce turnover.

The relationship between CA and absenteeism needs to be investigated. Pate and Merker (1978) hypothesized that absenteeism and turnover rates will be higher for newly hired, high apprehensives than for low apprehensives. If that hypothesis is true, the difficulty that high apprehensives are predicted to have in developing and maintaining friendships with other employees, could explain that relationship.

Factors in the negative relationship between CA and job satisfaction need to be investigated. Once again the difficulty that high apprehensives may have in developing and maintaining friendships with fellow employees, could explain their low job satisfaction. Organizational programs, such as assigning each new employee to a mentor, could improve job satisfaction.

The present research design did not allow any strong conclusions to be drawn about the movement of employees since attending the Career Planning Workshop. It could not be determined if there was a negative relationship between CA and the number of promotions since the workshop, as would be expected. A longitudinal design

needs to be used, to accurately investigate relationships involving employee movements.

Little research has been done on treating high apprehensives, especially in organizational settings. Systematic desensitization and cognitive restructuring are the most commonly mentioned techniques for reducing CA. Those two techniques need to be compared for effectiveness and long lasting benefits in real organizations. Instruments for identifying employees for whom those techniques may not work need to be developed and validated. The optimistic claims by McCroskey and Richmond (1979), for using behavioral techniques and lay trainers need to be investigated. Psychotherapy specifically for CA needs to be researched.

Conclusion

The results were generally consistent with the hypothesized model of communication apprehension, job level held, communication requirements of the job, job satisfaction, and career change activities. Eleven out of the 14 correlational main effects proposed by the model were significant and in the expected direction. Communication apprehension was significantly related to communication requirements of jobs, job satisfaction, and career change activities. Communication requirements was

significantly related to job satisfaction. Job satisfaction was, as predicted, not significantly related to career change activities. The interaction of CA and communication requirements was significantly related to three of the five job satisfaction scales. All but one of the relevant LISREL path weights were significant and in the expected direction. Job level held was negatively related to communication requirements in the structural relationships results. The present research had many implications for organizations and for theory. Many questions were raised by the present research that need to be addressed in future research.

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APPENDIXES

APPENDIX A

CAREER PLANNING WORKSHOP

PROGRAM REVIEW AND EVALUATION

A. CAREER PLANNING WORKSHOP

PROGRAM REVIEW AND EVALUATION

June 10, 1985

To: All "Graduates" of Career Planning Workshops

will conduct an in-depth study of the long-term effects of the Career Planning Workshops. These have been very popular programs and because of this, we feel it is important to try to identify what factors contribute to its success and what factors could be changed to make it a better product. In order to achieve a valid information base, we need input from persons such as yourself who have participated in one of these workshops. Therefore, we have attached a questionnaire which we would like for you to complete.

We want to assure you that these questionnaires are designed to be anonymous. We are emphasizing only group level data; there will be no analysis of individual responses. Your questionnaire will be handled only by of the Special Projects Group of the Personnel Division.

The questions are not difficult--you might even see it as a fun activity! Based on our pilot test, we suggest that you plan about 30 minutes to complete the form.

We do need <u>your</u> input and we hope that you will consider it a valuable, worthwhile use of your time. Thank you for your participation.

PLEASE RETURN YOUR COMPLETED FORM TO:

IF YOU HAVE QUESTIONS, PLEASE CALL:

Career Planning Workshop
Program Review and Evaluation

Participant Profile: Please place a check in the appropriate circle or provide the requested information.

1. How long has it been since you participated in the Career Planning Workshop?

Less than six months.	Two to three years.
Six to twelve months.	More than three years.
One to two years.	

2. Your gender?

Male	Female

3. Your age?

Less than 30.	50 to 60.
30 to 40.	Greater than 60.
40 to 50.	

4. How many years have you been employed here? _____

5. How many years have you been employed in your present job? _____

6. Which of the following best describes the kind of work you do?

Manager / Supervisor	Technical / R & D Staff
Administrative / Service Staff	Technical Support
Administrative Support	Other _____

If you are a supervisor, how many people do you directly supervise? _____

7. What is your payroll Status?

Monthly	Weekly
Hourly	

8. What is the highest level of education you attained?

Less than high school	Associates Degree or equivalent
High School	Bachelors Degree
Technical or trade school	Masters Degree
Some college coursework	Doctorate

9. Why did you decide to participate in the Career Planning Workshop? (Check all that apply.)

I felt a change in jobs, company or career was right for me.
I thought the course would help me identify and correct personal weak points.
I wanted to learn the skills and techniques of career development.
I enjoy company-sponsored training courses.
I felt I was at a turning point in my career.
The written information about the course sounded interesting.
I felt I was stagnant in my present position.
I felt the course would offer good ideas for advancement.
I thought the course would be good for my personal development.
The course sounded like fun.
My friends who took the course liked it.
I felt the course would help me meet new people.
I needed a change in my everyday activities.
I enjoy group activities and expected this course to include some.
I thought taking this type of course would be exciting.
I felt I needed personal insight.

We are interested in learning more about the kind of people who participate in the Career Planning Workshop. We recognize that differences in people will affect the aspects of the workshop they find important. The following questions will help us understand your responses to the remainer of this questionnaire. There are no right or wrong answers. Generally, your initial response is the most accurate. Try not to dwell on any item and if any item seems particularly confusing, simply omit it.

Please use the following scale in responding to the items below:

SA	You **strongly agree** with the statement.
A	You **agree** with the statement.
U	You are **undecided** about your response to the item.
D	You **disagree** with the statement.
SD	You **strongly disagree** with the statement.

10 I often start new projects with a great enthusiam.

11 Conversing with people who hold positions of authority causes me to be fearful and tense.

12 People can usually count on me to keep a conversation going.

13 My interests change quickly from one thing to another.

14 I sometimes feel "just miserable" for no reason at all.

15 At work or at play, other people find it hard to keep up with the pace you set.

16 I often try to analyze the motives of others.

17 I like a job that requires attention to details.

18 I am often quite tense and uneasy.

19 I often find it difficult to go to sleep at night because I keep thinking of what happened during the day.

20 I am usually optimistic about my future.

21 Conversing with people who hold positions of authority is something I really enjoy.

22 I lack self confidence.

23 I feel self-conscious when I am called upon to answer a question or give an opinion.

24 I often feel grouchy.

25 I am more interested in athletics than in intellectual things.

26 I am not concerned over the morals of my generation.

27 I am happiest when involved in projects which call for rapid action.

28 I daydream a great deal.

29 I would rather have others make the important decisions.

30 I am basically an outgoing person.

31 I almost always feel well and strong.

32 I work more slowly and more deliberately than most people of my sex and age.

33 I am inclined to philosophize about things.

34 I often wonder why people behave as they do.

35 I have rather narrow interests.

36 People sometimes tell me to "slow down and take it easy."

37 I often feel listless and tired for no good reason.

38 When I have to represent my organization to another group, I feel very tense and nervous.

39 I consider myself to be the silent type.

40 I take as few chances as possible.

41 I often wonder where others get all the excess energy they seem to have.

42 I often feel lonesome even when with other people

43 Disappointments affect you so little that you seldom think about them twice.

44 My daydreams are often about things that can never come true.

45 I am the kind of person who is "on the go" all the time.

46 I sometimes wish people would slow down a bit and give me a chance to catch up.

47 I like to discuss the more serious questions of life with my friends.

48 I can turn out a large amount of work in a short time.

49 I enjoy thinking out complicated problems.

50 I am a reserved individual.

51 I often take time out just to meditate about things.

52 I am afraid to express myself in a group.

53 I am constantly alert to ways of improving myself.

54 When I'm with other people, I often have difficulty thinking of the right things to talk about.

55 I am able to work for unusually long hours without feeling tired.

56 I talk more slowly than most people.

57 I am less energetic than most people.

58 I try to sense what people are thinking about as they talk.

59 I'm afraid to speak up in conversations.

60 In most situations, I generally know what to say to people.

61 I would rather put plans into action rather than spend time working plans out.

62 I often watch others to see what effects my words and actions have on them.

63 I like to get involved in group discussions.

64 I am a safety minded individual.

65 Most people regard me as a lively individual.

66 I look forward to an opportunity to speak in public.

67 I am often low in spirits.

68 I am inclined to analyze myself.

69 I live in the present, leaving the past and future out of my mind.

70 I almost always feel that life is very much worth living.

71 I talk less because I am shy.

72 I am fearful and tense all the while I am speaking before a group of people.

73 I enjoy representing my organization to other groups.

Sensor	Intuitor
Thinker	Feeler

74 Recalling the I Speak Your Language exercise, what is your primary personality style?

Sensor Intuitor Thinker Feeler

These questions refer to your general evaluation of the Career Planning Workshop. Based on what you now recall, please respond to the following evaluative statements.

75. The materials used by the workshop were well organized.
76. The course content was meaningful to me.
77. The workshop leaders were very knowledgable.
78. The workshop leaders were very effective.
79. The atmosphere of the workshop was enthusiastic.
80. The quality of group participation was high.
81. The workshop was of high value to me personally.
82. The course content was very relevant to my situation.
83. The workshop met my individual needs.
84. The workshop was well managed.
85. The workshop provided opportunities to develop new personal relations.

The following statements refer to 3 specific aspects or components of the Career Planning Workshop. Please respond to these statements using the same 5-point scale used above.

I. Self Assessment (If you were not here..., Lifetime drawing, Career Values Card Sort, the film " What You are is Where You Were When", the Strong Campbell Interest Inventory, I Speak Your Language, and the LAMP autobiography exercise)

For me, the self assessment exercises:

86. were more confusing than helpful.
87. provided useful, personally relevant information.
88. helped me develop more insight into myself.
89. provided me a greater understanding of my values.
90. were the catalyst for others to give me helpful feedback
91. were fun to participate in.
92. forced me to look at "roadblocks" to change that I set up for myself.
93 helped me develop a long range perspective of my life.
94. assisted me in making vital career decisions.

II. **Organization Assessment** (Career Planning in Organizations; Fantasy Job Worksheet; Examining Options--Multiple Goals; Goals and Obstacles; Obstacles to Goal Achievement; Management Speaker)

For me, the organizationa assessment activities:

95. convinced me of the value of keeping managers informed
96. taught me how to assess my skills in relation to organizational opportunities.
97. helped me see the value of a mentor/sponsor.
98. showed me how to cultivate a mentoring relationship.
99. helped me develop techniques to increase my visibility within the organization.
100. caused me to consider how I could restructure my current job.
101. stimulated my thinking about an "organizational need" and how I might fill it.
102. helped me evaluate my credentials in terms of organizational requirements for advancement.
103. stimulated my investigation into lateral career moves.

III. **Career Strategies** (The film "Pack Your Own Chute"; Creating Your Own Career Options; Gathering Information/Reality Testing; Bolles' Quick Job-Hunting Map)

For me, the career strategies activities:

104. helped me clairify my career objectives.
105. caused me to think through some short & long range plans.
106. helped me determine specific steps needed to achieve my goals.
107. gave me a chance to use others' input in my career planning.
108. demonstrated that goal setting could be useful in career development.
109. helped me recognize my responsibilities in developing my own career.

Some people take a course in career planning just because it sounds interesting. Others take such a course because they are considering some sort of job change or career shift.

110. How much were you considering a possible job change or career shift when you signed up for the Career Planning Workshop?

A lot. Some. A little Not really at all.

If you had at least thought about a job or career change a little, please indicate the degree to which the following five factors influenced your considering such a change.

	None	A Little	Some	A Lot
111. My individual fit to my job				
112. My immediate work group				
113. My relationship with my supervisor				
114. Other issues within the organization				
115. Other issues outside the organization				

People consider career change or career movement for a variety of reasons. Sometimes they aim for stimulation & growth; other times they want to get away from a poor working environment.

We are interested in determing if certain aspects of your job (prior to attending the Career Planning Workshop) were in fact satisfactory or unsatisfactory and the degree to which these factors led you to consider a career or job change.

Please indicate your agreement or disagreement with the following statements as they related to your job prior to taking the Career Planning Workshop.

116. My skills and abilities could have been applied more completely in a different type of job.

117. I had grown somewhat bored with my job and I needed to do something different.

118. My personal style was very well matched to my job.

119. My supervisor showed little or no concern for my career growth.

120. My supervisor did not really understand the skills and abilities I had to offer to this organization.

121. My supervisor worked closely with me to help me achieve difficult and worthwhile goals.

122. My immediate work group displayed a willingness to work together.

123. It was frustrating that my immediate work group did not have the right mix of talent and/or skills for optimal performance.

124. My immediate work group operated in a very disorganized way.

125. There was a lot of unpleasant personal conflict among the people I worked with.

126. My work group was well organized and functioned efficiently.

127. Recall the job you were in prior to the Career Planning Workshop. Of all the personal factors involved in job performance (your skills, the effort you could apply to the job, your abilities), what percent of your total potential were you applying to your job at that time?

_____ %

128. What is your present job level and/or title? _____

129. To what degree does your present job require you to actively and verbally interact with others?
Constantly Frequently Occasionally Infrequently Very Infrequently

130. Do you now hold a job which is different from the one you held when you took the Career Planning Workshop?
Yes No

If you answered yes to the last question, how did this occur? If you answered no, please skip to the top of the next page and check all statements which apply to you.

I was moved to another job where my services were needed.

On my own initiative, I searched for and applied for a different job.

My supervisor assisted me in looking for and securing a different job.

Other people in the organization were concerned about my career growth and helped me get another position.

Other, explain _____

If no, please check all which apply.

I have not desired to change jobs.

I want to change jobs but simply have not done anything about it.

I have modified my present job to make it better for me.

I have looked for other jobs but could not find anything appropriate.

I have applied for other jobs but have not received an appropriate offer.

I have developed revenue producing activities apart from my present job.

I have developed more rewarding leisure activities.

If you have changed your job or significantly altered your non-work activities since taking the Career Planning Workshop, please respond to the following three questions.

131. To what degree is your job or career different for you now?

A lot different Somewhat different Not very different

132. To what extent are you satisfied or dissatisfied with your work related activities?

Delighted Satisfied Undecided Dissatisfied Very Unhappy

133. To what degree did the Career Planning Workshop assist you in making your job/career changes?

A Great Deal A Lot Some A Little None

134. Of all the factors involved in your present job performance, (skills, effort, ability) what percent of your total potential are you now able to utilize?

____ %

Regardless of whether people change jobs or not, regardless of whether people even think about changing career activities, there may be other results from this type of workshop. In your opinion, **what impact** did your participation in the Career Planning Workshop have on each of the following concerns?

++ **Very Positive** -- **Very Negative**

O **Neutral**

\+ **Positive** \- **Negative**

135. Your personal self awareness and understanding.
136. Your ability to communicate.
137. Your ability to change your communication style based on the needs of the other people in the situation.
138. The degree to which you feel in control of your work situation and your career.
139. Your self concept, self image.

The following statements reflect activities you may or may not have engaged in since the Career Planning Workshop. Please check (✓) each activity which you have been engaged in since attending the Career Planning Workshop. **For those items you check**, also indicate the degree to which the Career Planning Workshop may or may not have stimulated your initiating the activity.

Entered or reentered a formal course of study at a college or university.
Initiated any other type of study or training.
Participated in company sponsored professional development programs.
Attended a professional convention, seminar or workshop.
Joined a professional organization.
Initiated active participation in a community oriented program.
Developed new outside interest or hobby.
Developed active membership in a new social group.
Acted in the role of mentor for a co-worker.
Sought out & received a promotion.
Increased the level of communication with my supervisor.
Initiated a search for a similar job in another organization.
Initiated a search for a different type of career or job in another company.
Developed new vocational/professional activities beyond the scope of my present job.

People who participate in career planning workshops "graduate" with different beliefs. Based on what you **know** or **believe** about interpersonal communications, careers, and career planning, check either "True" or "False" for each of the following items.

140. Multiple perspectives usually increase the validity of personal decisions.
141. "Have To's" in life reflect how other people and circumstances generally control your life more than you do.
142. Disclosing aspects of yourself usually adds little to what you already know about yourself.
143. Discussion with others often generates options and helps you deal with obstacles.
144. Long range planning helps one identify obstacles, alternatives, and options.
145. An individual's personality style often changes depending on their work environment.
146. Knowledge of an other person's personality style is rarely useful in aiding communication.
147. Consideration of personal values is often so confusing it is basically not useful in making career decisions
148. Personal values regarding work are so complex that most people cannot prioritize their values.
149. Most people's values change as they go through life.
150. Satisfaction with a particular occupation may depend as much on abilities as on one's range & type of interests.
151. Many people may be well suited to quite a number of different occupations.
152. Most people strive to achieve in similar ways.
153. Given career planning skills, people do not have to plateau in any organizational setting.
154. In the typical organization, career advancement or lack of advancement reflects a person's ability.
155. Multiple career options are often necessary to ensure career growth in a changing dynamic organization.

The following questions refer to how you feel about working for **Energy Systems** in your **current position.**

Again, please use the following scale:

SA	You **strongly agree** with the statement.
A	You **agree** with the statement.
U	You are **undecided** about your response to the item.
D	You **disagree** with the statement.
SD	You **strongly disagree** with the statement.

156. The better my work performance, the greater will be my opportunity for advancement.

157. Job openings are filled fairly.

158. My job allows me to make use of my skills & abilities.

159. I am satisfied with my opportunity to get a better job at

160. In comparison with people in similar jobs in this area, my pay is satisfactory.

161. I am proud to work for

162. I have an opportunity to make a difference ——to contribute to the overall success of the organization.

163. My pay is fair in comparison with other employees in

164. I am given real opportunities to improve my work related skills in this organization.

165. I am satisfied with the recognition I receive for doing a good job.

166. My work gives me a feeling of personal accomplishment.

167. Overall, I am satisfied with this organization and my job.

168. Training programs, such as the Career Planning Workshop reflect the organization's commitment to each employee's development.

169. If you had enough money to live as comfortably as you would like for the rest of your life, would you continue to work at your present job?

Yes No

170. If you could have your own way, would you like to work for five years from now?

Yes No

171. How likely are you to make a real effort to find a new job with another employer within the next year?

Definitely Will Probably Will Undecided Probably Will Not Definitely Will Not

172. All things considered, how satisfied are you with

Your job? Delighted Satisfied Undecided Dissatisfied Very Unhappy

Your life? Delighted Satisfied Undecided Dissatisfied Very Unhappy

Thank you for your time.

APPENDIX B

CORRELATION MATRIX FOR THE SCALES

B. CORRELATION MATRIX FOR THE SCALES

	1	2	3	4
Communication Apprehension (1)	1.0000			
Communication Requirements (2)	-0.1464	1.0000		
Job Level (3)	-0.0286	-0.1032	1.0000	
Pre-workshop Job Satisfaction (4)	-0.1923	0.1621	0.0815	1.0000
Comprehensive Job Satisfaction (5)	-0.1942	0.1988	0.0335	0.4577
Hypothetical Situations Job Satisfaction (6)	-0.1697	0.0490	-0.0039	0.1865
Job Search Intention Job Satisfaction (7)	-0.0813	0.1385	-0.0618	0.0975
Overall Job Satisfaction (8)	-0.1396	0.2299	0.0697	0.3104
Career Change Activities (9)	-0.1693	0.0121	-0.0052	0.0219
Actual Career Change (10)	-0.1167	0.0197	-0.0464	-0.0857

	5	6	7	8
Comprehensive Job Satisfaction (5)	1.0000			
Hypothetical Situations Job Satisfaction (6)	0.3798	1.0000		
Job Search Intention Job Satisfaction (7)	0.2547	0.2041	1.0000	
Overall Job Satisfaction (8)	0.6603	0.3780	0.2568	1.0000
Career Change Activities (9)	0.0364	-0.0655	-0.1623	0.0071
Actual Career Change (10)	0.1827	0.0964	0.0564	0.1777

	9	10
Career Change Activities (9)	1.0000	
Actual Career Change (10)	0.1153	1.0000

VITA

Donald Lynn Harville was born in Rogersville, Tennessee on March 28, 1956. He received his primary and secondary education in that town. He entered the University of Tennesse-Knoxville in June 1974. He received a B.A. in Biology with Highest Honors in March 1978 and was Phi Beta Kappa. He began graduate work at the University of Tennessee-Knoxville in September of 1980. He received the Ph.D. in Industrial and Organizational Psychology in August of 1986.