# Willingness to Communicate, Communication Apprehension, and Self-Perceived Communication Competence: Conceptualizations and Perspectives

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The construct of communication apprehension has been central to the study of communication avoidance since 1970. The introduction of this construct into the communication literature was not, however, the beginning of research related to approach-avoidance of communication, nor even the initial foray into the study of the impact of fear or anxiety on communication. To understand where scholarship in this area stands today it is important to put current work into historical perspective.

### AN HISTORICAL PERSPECTIVE

Notice was taken of people who were reluctant to speak in the writings of the Greeks over 2,000 years ago, and attention to stage fright associated

with public speaking appeared in the first public speaking books that appeared in the United States. Serious research in this area, particularly research employing empirical methodologies, did not begin until the 1930s. Throughout most of this time, virtually all the study of communication focused on public speaking; hence, apprehension about communication was recognized only in the public speaking context. Much of the theory relating to stage fright envisioned the problem to exist because people lacked public speaking skills, they failed to prepare adequately to give their speech, or they just did not understand how public speaking was little different from just talking to people (which was presumed to be easy for everyone). An examination of many current public speaking texts indicates these naive views persist today in spite of over six decades of research in this area which indicate these views are misguided.

The publication of Clevenger's (1959) classic article, which summarized the first 25 years of research on stage fright, energized scholarship in this area. This article appeared at a particularly opportune time in the history of the communication field. Up until this time the overwhelming focus of communication scholarship was on public address. Although some attention had shifted to symposium speaking and more interactive forms of small group communication, these concerns remained on the fringes of the field's attention. A few people in the field were looking to psychology for guidance in terms of research methodologies that could be used to study persuasion and other aspects of public communication, and the work of the Yale group and other experimental researchers in persuasion became widely disseminated. Some graduate seminars, and a few undergraduate classes, began to explore communication beyond the contextual limitations of public speaking.

Coincidentally, this period was one of massive expansion in the enrollments of colleges and universities. Enrollments of females and children from families that never had a member attend college previously doubled, tripled, and quadrupled—and continued to expand beyond that. This new population of students provided subtle (and sometimes not so subtle) pressure on the field to look at communication "in the real world" beyond the elitist limitations imposed by a focus on public speaking. Courses in interpersonal and organizational communication mushroomed, to be followed later by courses in political communication, health communication, instructional communication, intercultural communication, nonverbal communication, and so on.

The work of Phillips (1965, 1968) advanced from where Clevenger's work left off. His early work on "reticence" moved beyond public speaking to recognize that there are some people who avoid communication because they feel they have more to gain from remaining silent than from speaking. In his early conceptualization of the reticence phenomenon, Phillips indicated that anxiety was its primary cause. Thus, the

link with the earlier work on stage fright was forged. In later work, however, Phillips advanced the view that, although anxiety may be present, the major cause of reticence is the individual's lack of communication skills—a view that harkens back to the earlier area of theory about why people experience public speaking stage fright.

The work of Clevenger and Phillips provided the foundation on which I have built my conceptualizations of Willingness to Communicate (WTC), Communication Apprehension (CA), and Self-Perceived Communication Competence (SPCC). Although WTC was not the first construct developed, because it is the most global of these constructs, we consider it first.

### WILLINGNESS TO COMMUNICATE

Whether a person is willing to communicate with another person in a given situation certainly is affected by the situational constraints of that encounter. Many situational variables can have an impact. How the person feels that day, what communication the person has had with others recently, who the other person is, what that person looks like, what might be gained or lost through communicating, and what other demands on the person's time are present can all have a major impact, as can a wide variety of other elements not specified here.

Willingness to communicate, then, is in part situationally dependent. Nevertheless, individuals exhibit regular willingness-to-communicate tendencies across situations. Consistent behavioral tendencies with regard to frequency and amount of talk have been noted in the research literature for over a half century (Borgatta & Bales, 1953; Chapple & Arensberg, 1940; Goldman-Eisler, 1951). Such regularity in communication behaviors across communication contexts suggests the existence of the personality-type trait we have chosen to call "willingness to communicate" (WTC; McCroskey & Richmond, 1985, 1987). The WTC trait is an individual's predisposition to initiate communication with others. It is this trait orientation that explains why one person will initiate communication and another will not under identical or virtually identical situational constraints.

### Foundations of the WTC Construct

Although it has its earliest origins with the work of Phillips on reticence, the present WTC construct has evolved from the earlier work of Burgoon (1976) on unwillingness to communicate; Mortensen, Arntson, and Lustig (1977) on predispositions toward verbal behavior; and McCroskey and

Richmond (1982) on shyness. All these writings center on a presumed trait-like predisposition toward communication.

Unwillingness to Communicate. Burgoon (1976) originated the first construct that clearly falls within this area. She labeled her construct "unwillingness to communicate." She described this predisposition as "a chronic tendency to avoid and/or devalue oral communication" (p. 60). To argue the existence of such a predisposition, Burgoon drew on work in the areas of anomie and alienation, introversion, self-esteem, and communication apprehension. All these areas of research (which will be considered later) indicate variability in people's willingness to talk in various communication settings.

A self-report measure, the Unwillingness-to-Communicate Scale (UCS), was developed as an operational definition of the construct. The measure was found to include two factors. One factor was labeled "approach-avoidance" and subsequently was found to be so highly correlated with a measure of communication apprehension as to be virtually interchangeable with such a measure. The other factor was labeled "reward." This factor was not correlated with a measure of apprehension (r = .01).

Data reported by Burgoon (1976), although pointing to the potential usefulness of one dimension of the UCS to measure apprehension, also demonstrated it was not a valid operationalization of the construct that had been advanced. The scores on the approach-avoidance (apprehension) factor were found to be correlated with a measure of communication apprehension, total participation in a small group, and amounts of information giving and information seeking in a small group. The reward factor was uncorrelated with any of these criterion measures. In contrast, scores on the reward factor were correlated with satisfaction with a group, attraction to group members, and perceived coordination in a group, whereas scores on the approach-avoidance factor were uncorrelated with these criterion measures.

These results were discouraging because the behavioral measures of communication, which could be taken as validating a willingness or unwillingness to communicate predisposition, were only correlated with the apprehension factor scores. Thus, the results did not provide support for a general predisposition of unwillingness to communicate. Rather, they only replicated other research that indicates that people who are fearful or anxious about communication are likely to engage in less communication than others—a finding observed many times before and since this investigation.

The results of the validation research for the UCS, then, suggest that the measure is not a valid operationalization of the construct of a global predisposition to be willing or unwilling to communicate. Subsequent research employing the UCS has reinforced this conclusion. Although the apprehension factor of the instrument may be used appropriately as a measure of communication apprehension, neither factor has been demonstrat-

ed to measure the construct for which it was developed. However, the results of this research do not deny the possible existence of such a predisposition. In fact, they provide additional evidence that some regularity in the amount a person communicates may exist.

Predispositions toward verbal behavior. Mortensen et al. (1977) argue that "the more global features of speech tend to be consistent from one class of social situations to another" (p. 146). Although they recognize the importance of variance in situational characteristics in determining how much a person will communicate, they note findings from over 25 years of research that indicate consistency in the amount of communication of an individual exists across communication situations. They suggest there is a characteristic predisposition of an individual to talk a given amount, and that predisposition operates within the constraints of individual situations. They label this phenomenon "predispositions toward verbal behavior."

Unlike Burgoon (1976), these authors do not explore the possible causes of the global predisposition. Rather, they simply argue that it exists and provide a self-report scale designed to measure it. This measure is known as the Predispositions toward Verbal Behavior (PVB) scale, a 25-item, Likert-type scale employing a 7-step response option.

On the basis of the data reported by Mortensen et al. (1977), the PVB appears to be a unidimensional scale, although they indicate an interpretable multiple-factor solution can be forced. Only one of the five factors interpreted centered on a general disinclination to engage in communication. The remaining factors appeared to measure dominance in communication, initiating and maintaining interpersonal communication, frequency and duration of communication, and anxiety about communication.

Data on validity indicate the ability of the PVB to significantly predict both number of words spoken and duration of talk in interpersonal interactions. This is a positive indication of the validity of the scale. However, because only 5 of the 25 items focus directly on a general willingness or unwillingness to communicate (the communication disinclination factor), the reason for the obtained predictive validity is in considerable doubt.

A reported high correlation of the PVB with a measure of communication apprehension (r=.67) increases that doubt. As I noted previously, considerable research prior and subsequent to the development of the PVB has found apprehension to be predictive of the amount a person talks in various settings. Communication apprehension measures are not presumed to be direct measures of a global predisposition to approach or avoid communication. Rather, they are presumed to be indicants of the amount of fear or anxiety an individual is likely to experience about communication. Such fear or anxiety, however, is likely to be one of the antecedents of general predispositions to be willing or unwilling to communicate, although certainly not the only one.

The PVB, therefore, does not appear to be a valid operationalization of a general predisposition to be willing or unwilling to communicate. As was the case with the UCS, however, the research results based on the PVB provide additional indications that some regularity exists in the amount an individual communicates.

Shyness. Shyness is a term that has been used by many researchers when investigating trait-like predispositions toward communication. Unfortunately, some researchers fail to provide any definition of the term, and those who do are far from arriving at a universal agreement on its definition. Leary (1983), basing his efforts on earlier work on shyness, has generated a construct he calls "social anxiety." He notes two components in his construct—an internally experienced discomfort and externally observable behavior. Some writers in the area of shyness have focused on the internal experience. Their work has paralleled work in the area of communication apprehension. Others have focused on shyness as reduced communication behaviors. This approach appears to be consistent with a concern for a predisposition toward willingness to communicate.

My work with Richmond (McCroskey & Richmond, 1982) falls into the latter category. We define shyness as "the tendency to be timid, reserved, and most specifically, talk less" (p. 460). We suggest that apprehension is one of possibly numerous elements that could impact that tendency, but stress that the two predispositions are conceptually distinct.

In earlier work I attempted to develop a simplified version of a measure of communication apprehension for use in a study with preliterate children (McCroskey, Andersen, Richmond, & Wheeless, 1981). As a serendipitous artifact of that work, I developed a self-report scale that was factorally distinct from, yet substantially correlated with, a measure of communication apprehension. The items on the scale centered on the amount of talking people report they do. I initially labeled the new instrument the Verbal Activity Scale (VAS), but reversed the scoring of the scale and changed its name to the Shyness Scale (SS) in later reports of its use. It has come to be known as the McCroskey Shyness Scale (MSS) to distinguish it from a number of other shyness measures developed by other people. Most of these other scales focus on anxiety about communication rather than shyness as a behavioral construct. Hence, I refer to this scale as the MSS here.

We (McCroskey & Richmond, 1982) believed the MSS was tapping a construct distinctly different than, although related to, the construct of communication apprehension. We attempted to validate both of the measures (shyness—MSS—and communication apprehension—PRCA) by examining their independence through factor analysis and their relationships with reports of communication behaviors taken from untrained observers who were friends of the subjects completing the measures.

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Employing both normal college student and older adult samples, we found that the measures were factorally distinct, as I had found in the early work, and were both significant predictors of observer reports of communication behavior. The validity coefficient for the MSS with observer reports of behavior was .53, a level generally considered quite high for self-report data with observation of actual behavior.

Although these results suggest the MSS is a valid measure of something, it is not evidence indicating that something is a predisposition to be willing or unwilling to communicate. The MSS is a self-report of the amount of talk in which one typically engages. The data from the McCroskey and Richmond (1982) study suggest the scores generated are valid predictors of the amount of talk in which observers see the individual engage. Even if we grant the validity of observer reports as quality indicants of actual behavior, this simply means the MSS is a valid report of behavioral tendencies in communication. It does not validate the existence of a personality-based predisposition to be willing or unwilling to communicate. That a person can with considerable accuracy self-report whether he or she talks a lot or a little does not necessarily demonstrate the behavior being reported is consistent with a predispositional desire, much less produced by such a predisposition.

As was the case with the research involving the UTC and PVB noted earlier, the research involving the MSS lends additional support for the argument that some regularity exists in the amount an individual communicates. Unfortunately, it is not clear that the MSS is a measure of a personality-based predisposition to be willing or unwilling to communicate, even though it my be a valid measure of a behavioral tendency to communicate more or less.

### The Current WTC Construct

With the development and validation of the WTC scale (McCroskey, 1992; McCroskey & Richmond, 1985, 1987), we now have an appropriate measure to employ in studies of willingness to communicate. This has permitted refinement of the earlier conceptualization of WTC, particularly in terms of the variables that were originally indicated as the antecedents of WTC.

In the original conceptualization of the antecedents of WTC, a number of probable antecedents were introduced. Three of these (anomie, alienation, and self-esteem) were found to have statistically significant, but very modest correlations with, WTC (r < .25). Thus, although it remains reasonable to presume that people who are anomic or alienated from the people around them, or who have low self-esteem, are less likely to be willing to communicate than others, any causal link of WTC with these antecedents would of necessity be quite small, given the observed correlations, and could be expected to account for very little variance in WTC.

In contrast, correlations of WTC with introversion, communication apprehension, and self-perceived communication competence have been found to be much more substantial and to be present in a variety of cultures (McCroskey & Richmond, 1990). The relationship between WTC and introversion has varied across cultures from -.19 to -.43. The relationship with communication apprehension has been consistently higher, -.44 to -.52, and the relationship with self-reported communication competence even higher, .44 to .80. The relationship between WTC and introversion/extraversion suggests that WTC is most likely a very stable trait. As McCrae and Costa (1994) noted:

Stability appears to characterize all five of the major domains of personality—neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. This finding suggests that an adult's personality profile as a whole will change little over time, and studies of the stability of configural measures of personality support that view. (n. 173)

Because communication apprehension and self-perceived communication competence are correlated with introversion at levels similar to the relationship of introversion and WTC, it appears that all these constructs may fall within the general introversion/extraversion domain of personality. Because introversion/extraversion has been demonstrated to have a substantial genetic component, this is an indication that these communication predispositions may, in part, be genetically produced and not purely a function of environmental influence as some have thought. In any event, the two antecedents of WTC that have been demonstrated to have the highest correlation with the WTC scale are communication apprehension and self-perceived communication competence. In the following sections we examine these two conceptualizations and their theoretic linkage to WTC.

## THE ORIGINAL CONCEPTUALIZATION OF COMMUNICATION APPREHENSION

The original conceptualization of communication apprehension (CA; McCroskey, 1970) viewed CA as "a broadly based anxiety related to oral communication." Subsequent writings made minor modifications to this definition. My more recent papers present the view that CA is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1977, p. 78; 1978, p. 192).

Although the conceptualization of communication apprehension has remained reasonably stable, two conceptual modifications occurred.

The first concerned the oral communication focus of CA, and the other concerned whether CA was restricted to a trait conceptualization.

### The Oral Focus of CA

In the original article in which I advanced the construct of CA, the focus clearly was on oral communication (McCroskey, 1970). Although in this article "communication" frequently was used without the "oral" qualifier, the earlier work in the areas of stage fright and reticence were acknowledged as the foundations on which the CA construct was developed. Both of these areas focused exclusively on oral communication at that time.

In some subsequent writings the oral context of CA received less emphasis. Of particular importance were two research programs that were conducted under the general rubric of communication apprehension but that did not focus on speaking. The first was the research concerned with apprehension about writing (Daly & Miller, 1975). This stream of research, initially led by Daly and his associates, continues and has received considerable attention in the field of English. The measure developed by Daly and Miller, the Writing Apprehension Test (WAT), has been employed widely and has been found to have only a moderate correlation with my CA measures. The second research area was that concerned with apprehension about singing. Although receiving far less attention than the articles and measures concerned with speaking and writing, research involving the Test of Singing Apprehension (TOSA) also discovered low correlations between the TOSA and CA measures (Andersen, Andersen, & Garrison, 1978).

In sum, the CA construct has been broadened substantially. Although it was originally restricted to talking, it now encompasses all modes of communication. Consequently, it should be recognized that current instruments labeled as CA measures (notably the Personal Report of Communication Apprehension, PRCA; McCroskey, 1970, 1978, 1982) are restricted to oral CA, specifically apprehension about talking to or with others. My focus in the remainder of this chapter is on this form of CA, and when I use the term CA this will be my referent; however, I believe that most of what follows will apply equally well to other forms of CA.

### The Trait Conceptualization of CA

The original article that advanced the construct of CA included no explicit mention of whether it is a trait of an individual or a response to the situational elements of a specific communication transaction. However, the implication is clear that the construct was viewed from a trait orientation. Not only was the discussion directed toward a response generalized across situations and time, but also the measures advanced clearly focused on a trait-like pattern.

The overwhelming majority of the research studies employing the CA construct have taken a trait approach (McCroskey, 1977). Many have referred to CA with terms such as "a traitlike, personality-type variable." The CA construct has been expanded explicitly to encompass both trait and situational views (McCroskey, 1977). Some research has been reported that has investigated CA in both the trait and state form (e.g., see Beatty, Balfantz, & Kuwabara, 1989; Beatty & Friedland, 1990; Prisbell & Dallinger, 1981; Richmond, 1978).

In sum, the CA construct has been broadened substantially. Although it originally was restricted to a trait orientation, it is now viewed as representing both trait and state approaches. Although the original definition of CA restricts the construct to a trait perspective, the revised definition noted earlier is consistent with the broader view. It should be recognized, however, that the most popular measures of CA are restricted to a trait conceptualization. Research based on more situational perspectives must employ other instruments.

### THE REVISED CONCEPTUALIZATION OF CA

In the following sections the conceptualization of CA is enunciated in four major areas: (a) types of CA, (b) causes of CA, (c) treatment of CA, and (d) effects of CA.

### Types of CA

Considerable attention has been directed toward the distinction between trait and state CA. This distinction has been quite helpful to researchers in the CA area in their attempt to distinguish older from newer approaches to this subject. Unfortunately, this distinction has come to be viewed as a dichotomy, a false dichotomy. To view all human behavior as emanating from either a trait-like, personality orientation of the individual or from the state-like constraints of a situation ignores the powerful interaction of these two sources. No element of personality yet isolated by psychologists or others has been found to have universal predictability across all situations for all individuals. Similarly, no situation has yet been identified in which we can predict a universal behavior from all individuals. Even in lifethreatening situations, all people do not behave alike. Thus it is important that we reject this false state-trait dichotomy and view the sources of CA on a continuum. This continuum can be viewed as ranging from the extreme trait pole to the extreme state pole, although neither the pure trait nor pure state probably exists as a meaningful consideration. Four points

along this continuum can be identified. Each of these points represents a distinct type of CA.

Trait-like CA. The term trait-like is used intentionally to indicate a distinction between this view of CA and one that would look at CA as a true trait. A true trait, as viewed here, is an invariant characteristic of an individual, such as eye color and height. No personality variable—and trait-like CA is viewed as a personality-type variable—meets this strict interpretation of "trait." After an individual achieves adulthood, his or her true traits are not subject to change. Trait-like personality variables, although highly resistant to change, can be and often are changed during adulthood. That CA is subject to such change is indicated clearly in the substantial research on treatment of people identified as having high CA (e.g., see McCroskey, 1972).

Trait-like CA is viewed as a relatively enduring, personality-type orientation toward a given mode of communication across a wide variety of contexts. Three varieties of this type of CA have been addressed in the literature—CA about oral communication, CA about writing, and CA about singing. The primary measures of these (PRCA, WAT, and TOSA) are presumed to be trait-like measures, which means that it is assumed that scores for an individual on any one of these measures will be highly similar across an extended period of time, barring an intervention program designed to alter the relevant CA level or a demand characteristic introduced into the CA measurement. This is the type of CA to which most of the research has been directed (McCroskey, 1977; Richmond & McCroskey, 1995).

Generalized-Context CA. Generalized-context CA is one step further removed from pure trait than trait-like CA. CA viewed from this vantage point represents orientations toward communication within generalizable contexts. Fear of public speaking, the oldest of the CA conceptualizations, is illustrative of this type of CA. This view recognizes that people can be highly apprehensive about communicating in one type of context while having less or even no apprehension about communicating in another type of context.

<sup>&</sup>lt;sup>1</sup>Criticisms of the 20- and 25-item PRCA instruments have been directed toward a heavy emphasis on items relating to public speaking in those instruments. This problem has been overcome in the PRCA-24 (McCroskey, 1982). For this reason the PRCA-24 is to be preferred over the earlier versions. This instrument permits four subscores as well as an overall score. The reliability of the instrument (internal) is estimated at .94, and the total score correlates with the earlier forms above .90. Data from over 100,000 subjects indicate that the scores form a normal distribution, with a mean of 65.6 and a standard deviation of 15.3.

Generalized-context CA is viewed as a relatively enduring, personality-type orientation toward communication in a given type of context. The taxonomy of types of generalized contexts advanced by McCroskey and Richmond (1980), which is based on types of communication settings, is useful for explaining this type of CA. From this view there are four varieties of this type of CA—CA about public speaking, CA about speaking in meetings or classes, CA about speaking in small group discussions, and CA about speaking in dyadic interactions.

The first CA measure to receive wide acceptance by researchers. the Personal Report of Confidence as a Speaker (PRCS) developed by Gilkinson (1942), is illustrative of an instrument designed to tap this type of CA. Subsequent instruments for measuring public speaking anxiety reported by Paul (1966) and McCroskey (1970; the Personal Report of Public Speaking Apprehension, PRPSA) also fall within this area. In addition, the four subscores on the PRCA-24 may be used as measures of the most common types of generalized contexts. As was the case with the traitlike CA measures noted in the previous section, it is assumed that scores for an individual on any one of these measures will be highly similar across an extended period of time, barring an intervention program designed to alter the relevant CA level or a demand characteristic in measurement. These measures are distinguished from the previously noted trait-like measures in that they focus more narrowly on communication within a given type of context rather than on communication across contexts. It should not be surprising, however, to find moderate to moderately high correlations between the two types of measures. To the extent that a traitlike orientation toward communication actually exists, an appropriate measure of that orientation should be at least somewhat predictive of orientations within generalized contexts.

Person-Group CA. This type of CA represents the reactions of an individual to communicating with a given individual or group of individuals across time. People viewing CA from this vantage point recognize that some individuals and groups may cause a person to be highly apprehensive, whereas other individuals or groups can produce the reverse reaction. For some people more apprehension may be stimulated by a peer or group of peers. For others, more apprehension may be stimulated by unfamiliar individuals or groups. A school teacher, for example, may be highly apprehensive about talking to her or his principal, but may have no apprehension about talking to a student in her or his own class.

Person-group CA is viewed as a relatively enduring orientation toward communication with a given person or group of people. It is not viewed as personality based but rather as a response to situational constraints generated by the other person or group. Although presumed to be relatively enduring, this type of CA would be expected to change as a func-

tion of changed behavior on the part of the other person or group. Although people with high trait-like CA or high generalized-context CA would be expected to experience high CA with more persons and groups, knowledge of the levels of neither of these should be expected to be predictive of CA experienced with a given individual or group. In short, this type of CA is presumed to be more a function of the situational constraints introduced by the other person or group than by the personality of the individual. Length of acquaintance should be a major consideration here. Although in early stages of acquaintance the personality orientations should be somewhat predictive, in later stages the situational constraints should be expected to overpower these orientations (Richmond, 1978).

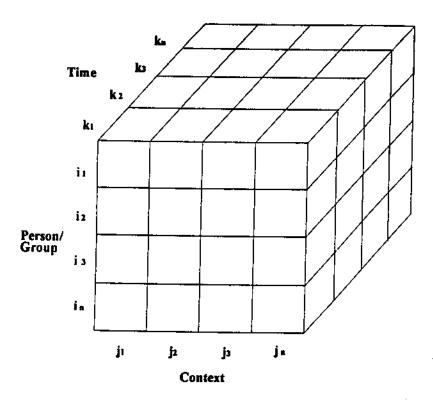
Few attempts to measure this type of CA have appeared in the literature. However, the state anxiety measure developed by Spielberger (1966), particularly as modified for this purpose by Richmond (1978), appears to be an excellent tool. It can be adapted readily for use with any person or group within any communication context.

Situational CA. This type of CA represents the reactions of an individual to communicating with a given individual or group of individuals at a given time. This is the most state-like of the types of CA. When we view CA from this vantage point we recognize that we can experience CA with a given person or group at one time but not at another time. For example, a student may experience little or no apprehension when going to a teacher to ask a question about an assignment, but may be terrified if the teacher instructs the student to stay after class to meet with her or him.

Situational CA is viewed as a transitory orientation toward communication with a given person or group of people. It is not viewed as a personality based but rather as a response to the situational constraints generated by the other person or group. The level of this type of CA should be expected to fluctuate widely as a function of changed constraints introduced by the other person or group. Although people with high trait-like CA or high-generalized context CA would be expected to experience high CA in more individual situations than would other people, knowledge of the levels of neither of these should be expected to be highly predictive of CA experienced by an individual in any given situation. On the other hand, the level of person-group CA should be expected to be moderately highly related to situational CA. Person-group CA primarily is a function of the prior history of the individual with the given person or group. Such a history can be assumed to produce expectations that would influence the level of CA in the given situation involving communication with that person or group.

Measurement of situational CA has received little attention in the previous research. However, the Spielberger (1966) instrument as modified by Richmond (1978), as noted in the previous section, appears to be a very satisfactory tool for this purpose.

Figure 3.1 illustrates the four types of CA. As indicated in that figure, the three components of this conceptualization are context, receiver (person/group), and time. Time should be taken to represent more than just the hour or day of the communication. As conceived here this element includes the variability associated with topic, mood, health, and the like that are seen as changeable over time, as well as the literal element of time itself. Trait-like CA is seen as that which cuts across context, receiver, and time. Generalized context is seen as that which is associated with a single type of communication context cutting across receiver and time. Persongroup CA is seen as that which is associated with a single receiver or group of receivers cutting across context and time. Situational CA is seen as that which is specific to a given context with a given receiver at a given time. It should be recognized that the three components in this model



Note.Trait-like = grand sum of all  $i_x j_x k_x$  cells; generalized context =  $j_x$  across time and context; person group =  $i_x$  across time and person group; and situational =  $i_x j_x k_x$  cell.

Figure 3.1. Illustration of types of communication apprehension

could be combined to generate additional types of CA. However, I do not believe such combinations provide useful insights.

Pathological CA. It is important that we recognize that the four types of CA discussed here do not reference different types of people. Rather, every individual is affected by each type of CA to either a greater or lesser degree. It is a truly rare individual, if one actually exists, that never experiences CA in any communication situation. Such an individual would be seen as evidencing pathological behavior because fear is a natural human response to a truly threatening situation. Similarly, it is comparatively rare individual who experiences CA in all communication situations, although such people do exist. With the exception of these rare individuals, even people with very high trait-like CA find some situations in which they can communicate comfortably. The most common of these situations involve communication with close friends. It is not so much that close friends produce less apprehension as it is that people who produce less apprehension are allowed to become close friends while more threatening individuals are avoided.

Because in the previous literature much as been made of the pathological nature of high CA, high reticence, and high shyness, we need to consider what we should view as pathological, or abnormal, levels of CA. This distinction can be made both conceptually and empirically, although the distinctions are not fully isomorphic.

At the conceptual level, we view abnormal behavior to be that which is nonadaptive, nonresponsive, or nonfunctional in the environment in which it is engaged. Normal individuals are sensitive to their environment, respond to its demands, and adapt their behavior so that they are a functional part of that environment. Experiencing no fear or anxiety in a nonthreatening environment and continuing to function in that environment is normal. The reverse responses are abnormal. If such responses become characteristic of the individual, he or she may be regarded as pathological and in need of professional help. The question, of course, is one of degree. Abnormal responses in one or few circumstances certainly should not generate a judgment of "pathological." Only when such behavior is a consistent pattern of the individual would such a judgment seem warranted. Most important, such judgments should not be restricted to only one end of the CA continuum. Extremely low CA can be just as abnormal as extremely high CA.

Empirically, the distinction between normal and abnormal is a bit more easily determined. I strongly endorse the empirical distinction made most frequently in the previous research. This distinction is based on the normal curve, an approximation of which is generated by scores on most of the common CA measures. People with scores beyond one standard deviation above or below the mean score of the population are identified as high or low in CA. In normally distributed scores, approximately 68% of the population falls within one standard deviation of the mean, with 16% scoring over one standard deviation higher and 16% scoring over one standard lower. The latter two groups are, in fact, statistically significantly different at alpha = .05.

For research purposes, this is a particularly good distinction. The researcher can be reasonably assured that the people classified as "high" are truly different from those classified as "low." These two groups are the ones that theoretically should manifest differential behaviors related to the measure. Those in the middle, the "normals," actually may have no consistent pattern of behavior, particularly if the measure is a personality-type measure. The middle scores most likely indicate that this is a facet of personality not highly associated with the behavior of these individuals. Other personality elements, or situational constraints, may completely dominate their behavior to the exclusion of this particular personality variable.<sup>2</sup>

I originally introduced this system of classification into the literature as a function of observing groups of students brought into rooms for treatment of trait-like CA. I observed that groups of students composed entirely of individuals with scores beyond one standard deviation from the mean simply did not talk. The behavior of individuals in groups composed of people with scores between one half and one standard deviation above the mean did not have such a consistent pattern. Some were totally noncommunicative but others were willing to interact.<sup>3</sup> Thus this classification scheme is not purely arbitrary. It does seem to have a behavioral justification.

Two cautions should be stressed, however. First, some samples may not be representative of the overall population. Therefore, the classification-by-standard-deviation procedure should be sensitive to the mean and standard deviation of the *population* norms rather than the particular *sample* studied. A sample of successful salespersons, for example, probably would include few people with high CA. Second, although this procedure is excellent for research involving comparatively large samples and based on aggregate data analyses, such a procedure is far too subject to measurement error to be applied to single individuals. Judgments about individuals should never be based on a single score or any scale. Rather, such a score should be only one of many factors to be considered. This is particularly important for people to recognize when developing or implementing intervention programs designed to alter high or low CA.

<sup>&</sup>lt;sup>2</sup>It has been demonstrated repeatedly in the personality literature that any given personality variable may be relevant to behavioral prediction for some people but not for all. People scoring in the midrange of the measure are least predictable. For such people, the variable may be irrelevant, and their behavior may be controlled by the situation and/or other personality characteristics. For a discussion of these problems, see Bem and Allen (1974) and Bem and Funder (1978).

<sup>&</sup>lt;sup>3</sup>These observations were made during data collection for the study reported by Ertle (1969).

### **CAUSES OF CA**

Varying writers have presented different views of the etiology of CA. The differences, however, are not so much a function of disagreement as they are of desperation. The best method of isolating causes of subsequent events generally is considered to be carefully controlled experimentation. Unfortunately, for ethical reasons, this method is highly restricted for investigations of the causes of CA. Although we might ethically employ experimentation to investigate situational CA, almost no one would approve such experimentation with trait-like CA. The other types of CA fall within the gray area between these two types. Consequently, most research directed toward the etiology of CA has been performed in naturalistic environments. Such research is useful for establishing correlational associations, but it is fraught with potential error when attempting to infer causality. Much of the writing in this area is based more on speculation than on research. Regrettably, the following causal analysis will also have this characteristic. I hope that future research will provide insight into the validity of my speculations.

Previous causal analyses generally have been restricted to viewing either trait-like CA or situational CA. I first present my position in each of these areas and then advance an etiological explanation that I believe may be applied to all types of CA.

Causes of Trait-like CA. Throughout the social sciences only two major explanations of the differential trait-like behaviors of individuals hold sway: heredity and environment. Simply put, we can be born with it or we can learn it. I believe that both of these explanations can contribute to our understanding of the etiology of CA.

Although most early writers discounted out of hand the notion of heredity as a cause of trait-like CA, writers have acknowledged that there indeed may be a hereditary contribution. Although no one has yet argued that there is a CA gene, the work of social biologists, particularly their research with twins, has provided compelling evidence that something other than environmentally based learning is having an impact on human behavior tendencies. McCroskey and Richmond (1980) summarize the thrust of this research:

Researchers in the area of social biology have established that significant social traits can be measured in infants shortly after birth, and that infants differ sharply from each other on these traits. One of these traits is referred to as "sociability—the degree to which we reach out to other people and respond positively to contact with other people. Research with identical twins and fraternal twins of the same sex rein-

forces this theoretical role of heredity. Identical twins are biologically identical, whereas fraternal twins are not. Thus, if differences between twins raised in the same environment are found to exist, biology (heredity) can be discounted as a cause in one case but not in the other. Actual research had indicated that biologically identical twins are much more similar in sociability than are fraternal twins. This research would be interesting if it were conducted only on twin infants, but it is even more so because it was conducted on a large sample of adult twins who had the opportunity to have many different and varied social experiences. (p. 6)

It is important that we recognize that the work of the social biologists does not support the argument that heredity is the only cause of sociability, much less of CA, but rather suggests that heredity may be one of the contributing causes. Children, it seems, are born with certain personality predispositions or tendencies. No one has yet argued, not even the most ardent social biologists, that these predispositions or tendencies are not changeable. Thus what happens in the child's environment will have some impact on the predispositions and tendencies the child carries over into later life. However, because children are born with different predispositions and tendencies, they will react differently to the same environmental conditions. This interaction of heredity and environment, then, is seen as the precursor of adult predispositions and tendencies such as CA.

Although heredity appears to be a meaningful contributor to traitlike CA, most writers allege that reinforcement patterns in a person's environment, particularly during childhood, are the dominant elements. Although most of the views supporting reinforcement as a cause are based primarily on speculation or analogy, some available research is supportive (e.g., see McCroskey & Richmond, 1978).

We can view the causal impact of reinforcement in at least two ways. The first is a fairly narrow, behaviorist view. If the child is reinforced for communicating, the child will communicate more. If the child is not reinforced for communicating, the child will communicate less. Although this is a rather simple application of the general theory of reinforcement, and may serve to explain many communication behaviors, because it does not address the cognitions of the individual and CA is viewed as a cognitive variable, this explanation is less than satisfactory for our purpose.

The second way we can view the impact of reinforcement is as an adjunct of modeling. Modeling theory suggests that children (and to some extent adults) observe the communication behavior of others in their environment and attempt to emulate it. If their attempts are reinforced, they continue to behave in a similar manner. If they are not reinforced, they alter their behavior. Such an explanation seems to be a very good way of looking at the development of many communication behaviors, such as

accent, dialect, and use of nonverbal behaviors. However, this explanation also ignores the cognitive element and thus does not address CA as conceived here.

Although I agree that reinforcement is a central component in the development of CA, I do not believe that the behavioristic approaches outlined earlier can account for this relationship. My view of the place of reinforcement as a causal element in the development of CA is outlined later when I consider the theory of learned helplessness.

Causes of Situational CA. The causes of situational CA appear to be clear. As I have indicated in previous writings, the causal elements outlined by Buss (1980) appear particularly insightful. Buss suggests that the major elements in the situation that can result in increased CA are novelty, formality, subordinate status, conspicuousness, unfamiliarity, dissimilarity, and degree of attention from others. In most instances, the opposite of these factors would be presumed to lead to decreased CA in the situation. In other work, Daly and Hailey (1980) have noted two elements that go beyond those advanced by Buss as causes of situational CA: degree of evaluation and prior history.

Although these causes are intuitive and have been suggested as probable causes by authors in many books (including those written by this author), research reported by Beatty and his colleagues have raised very serious questions as to whether these factors are, in fact, at all related to an individual's fear or anxiety responses. This work provides convincing evidence that these presumably situationally produced perceptions are, in reality, the product of trait-like predispositions to perceive situations differently, and that trait CA may be the factor driving these perceptual predispositions, or that these are all part of a larger predispositional domain. Beatty has found, for example, that regardless of situational manipulation, high apprehensives see themselves as being more conspicuous, for example, than do low apprehensives (Beatty, et al., 1989; Beatty & Friedland, 1990). It may well be that what is reported as situational variability is merely a projection of individuals' predispositions to experience a given situation differently.

Learned Helplessness and Learned Responsiveness. Although the previous causal explanations are useful in developing a fuller understanding of the etiology of CA, none of them is completely satisfactory. Work in the area of expectancy learning, particularly that concerning learned helplessness (Seligman, 1975), permits a causal explanation that can be applied to all types of CA because it takes into account both traits of the individual and the variety of situational demands the individual can confront.

My approach is a cognitive one. My underlying assumption is that people develop expectations with regard to other people and with regard

to situations. Expectations are also developed concerning the probable outcomes of engaging in specific behaviors (such as talking). To the extent that such expectations are found to be accurate, the individual develops confidence. When expectations are found to be inaccurate, the individual is confronted with the need to develop new expectations. When this continually recurs, the individual may develop a lack of confidence. When no appropriate expectations can be developed, anxiety is produced. When expectations are produced that entail negative outcomes that are seen as difficult or impossible to avoid, fear is produced. When applied to communication behavior, these last two cases are the foundation of CA.

Reinforcement is a vital component of expectancy learning. People form expectations on the bases of attempting behaviors and being reinforced for some and either not reinforced or punished for others. The most gestalt expectancy is that there is regularity in the environment. This forms the basis for the development of other, more specific expectations. When no regularity can be discovered in a given context, either because none exists or there is too little exposure to the context to obtain sufficient observation and reinforcement, the person is unable to develop a regular behavioral response pattern for that context that will maximize rewards and minimize punishments. Anxiety is the cognitive response in such circumstances, and the behavior is unpredictable to a large extent. However, nonbehavior such as avoidance or withdrawal is probable because even though this does not increase the probability of obtaining reward, it decreases the probability of receiving punishment in many instances. The person essentially becomes helpless.

In the early animal research concerning helplessness, dogs were placed in an environment in which rewards and punishments were administered on a random schedule. After attempting behaviors to adapt to this environment but receiving no regular response from the environment, the dogs retreated to a corner and virtually stopped behaving. They became helpless, and some actually died (Seligman, 1975).

An analogue may be drawn with human communication behavior. We learn our communicative behavior by trying various behaviors in our environment and receiving various rewards and punishments (or absence of rewards or punishments) for our efforts. Over time and situations, we develop expectations concerning the likely outcomes of various behaviors within and across situations. Three things can occur from this process. All can occur for the same individual. However, they may occur to greatly different degrees for different individuals. All are environmentally controlled. The three things that can occur are positive expectations, negative expectations, and helplessness. Let us consider each.

When we engage in communication behaviors that work (that is, are reinforced, achieving some desired goal), we develop positive expectations for those behaviors and they become a regular part of our commu-

nicative repertoire. Although in the early childhood years much of this occurs through trial and error, during later stages of development cognitions become more important. We may think through a situation and choose communication behaviors that our previous experience suggests we should expect to be successful. Formal instruction in communication adds to our cognitive capacity to develop such expectations and choose appropriate behaviors. To the extent our behaviors continue to be reinforced, we develop stronger positive expectations and our communication behavior becomes more regularly predictable. In addition, we develop confidence in our ability to communicate effectively. Neither anxiety nor fear—the core elements of CA—is associated with such positive expectations.

The development of negative expectations follows much the same pattern as the development of positive expectations. We discover that some communication behaviors regularly result in punishment or lack of reward and tend to reduce those behaviors. During later stages of development, we may make cognitive choices between behaviors for which we have positive and negative expectations, the former being chosen and the latter rejected. However, we may find situations for which we have no behaviors with positive expectations for success. If we can avoid or withdraw from such situations, this is a reasonable choice. However, if participation is unavoidable, we have only behaviors with negative expectations available. A fearful response is the natural outcome. Consider, for example, the person who has attempted several public speeches. In each case, the attempt resulted in punishment or lack of reward. When confronted with another situation that requires the individual to give a public speech, the person will fear that situation. The person knows what to expect, and that expectation is negative.

The development of helplessness occurs when regularity of expectations, either positive or negative, is not present. Helplessness may be either spontaneous or learned. Spontaneous helplessness occurs in new situations. If the person has never confronted a similar situation before, he or she may be unable to determine any behavioral options. Although this is much more common for young children, adults may confront such situations. For example, visiting a foreign country where one does not understand the language may place one in a helpless condition. Similarly, some people who are divorced after many years of marriage report that they find themselves helpless in communication in the "singles scene." Such spontaneous helplessness generates strong anxiety feelings, and the behavior of people experiencing such feelings often is seen by others in the environment as highly aberrant.

Learned helplessness is produced by inconsistent receipt of reward and punishment. Such inconsistency may be a function of either true of inconsistency in the environment or the inability of the individual to discriminate among situational constraints in the environment that produce differential outcomes. For example, a child may develop helplessness if the parent reinforces the child's talking at the dinner table some days and punishes it on other days. If the child is unable to determine why the parent behaves differently from day to day, the child is helpless to control the punishments and rewards. Similarly, the child may be rewarded for giving an answer in school but punished for talking to another child in the classroom. If the child is unable to see the differences in these situations, the child may learn to be helpless. When helplessness is learned, it is accompanied by strong anxiety feelings.

Learned helplessness and learned negative expectations are the foundational components of CA. The broader the helplessness or negative expectations, the more trait-like the CA. Inversely, the more situationally specific the helplessness or negative expectations, the more situational the CA. It should be stressed that helplessness and negative expectations (as well as positive expectations) are the product of an interaction of the behaviors of the individual and the responses of the other individuals in the environment. The development of the cognitive responses of the person, then, may be heavily dependent on the behavioral skills of that person, partly dependent on those skills and partly dependent on the responsiveness of the environment, or almost entirely a result of the environment. Thus any hereditary component may have either a large or small impact on later cognitions, depending on the type of environment in which the hereditarily predisposed behaviors are performed.

Learned responsiveness is seen as the opposite of learned helplessness. When the individual is able to discern differences in situations and has developed positive expectations for communication behaviors between and across differing situations, the individual has learned to be communicatively responsive. Learned responsiveness is not associated with fear or anxiety and thus presents a circumstance antithetical to CA. Learned responsiveness can be the product of unsystematic learning in the natural environment or the direct result of formal communication instruction.

### Treatment of CA

This explanation of the etiology of CA has taken a cognitive perspective. Before turning attention to possible treatments for CA, I should stress a distinction between what I call "rational" CA and "nonrational" CA.

Rational levels of CA are produced by combinations of positive and negative expectations and helplessness or responsiveness that are consistent with views of an outside, objective observer's perceptions of reality. That is, the individual, for example, has a positive expectation for a behavior, and an outside observer would agree that such a behavior should be expected to produce positive outcomes. Or, as another example, the indi-

vidual feels helpless and knows of no behavior that would result in a desired outcome, and an outside observer would agree that the individual has no behavioral choice that would result in a positive outcome. Nonrational CA, on the other hand, is seen as the unjustified expectations and helplessness or responsiveness of the individual, as viewed from the perspective of an outside, objective observer. For example, the individual may have negative expectations for a behavior, but an outside observer would see the behavior as highly likely to produce a desired outcome. Or the individual feels very responsive but the observer sees the person's behavior as nonfunctional in the situation.

I stress this distinction in order to emphasize the fact that some people feel CA in situations where there is no objective reason for them to do so, whereas others may not experience CA even in situations in which they should. Early approaches to treatment, for the most part, failed to make this distinction. It was presumed unreasonable to hold high levels of CA but reasonable to hold low levels of CA, thus only those people with high CA were seen as in need of treatment.

In my view, there are two major classifications of treatments, and they should be applied differentially depending on whether the CA level is rational or nonrational. Let me explain. Treatments may be directed either toward communication behaviors or toward cognitions about communication behaviors. That is, our treatment focus can be on communication skills within or across contexts or on the apprehension about engaging in communication within or across contexts.

Four general conditions are illustrated in Figure 3.2. The figure represents two levels of communication skill—satisfactory and unsatisfactory—

Communication Skill Level

# Communication Apprehension Level Satisfactory Unsatisfactory 1 2 Nonrational Rational Nonrational 3 4 Nonrational High

Figure 3.2. Rational and nonrational communication apprehension levels

and two levels of CA, low and high. Both low CA/satisfactory skills and high CA/unsatisfactory skills are seen as rational conditions. Low CA/unsatisfactory skills and high CA/satisfactory skills are seen an nonrational conditions. Each condition provides different requirements for effective treatment.

Condition I, low CA/satisfactory skills, requires no treatment. People in this condition have rational cognitions and most likely are reasonably effective communicators. The goal of all treatments is to move people from the other three conditions to this one.

Condition IV, high CA/unsatisfactory skills, also includes people with rational cognitions. They have unsatisfactory communication skills and are apprehensive about their communication. They have two problems, one behavioral and the other cognitive. No single solution is likely to overcome these problems and move these people to Condition I. If only their skills are improved, they will move to Condition III but will still suffer from high CA. If only their CA is improved, they will move to Condition II but will still suffer from inadequate skills. Thus both their skill deficiencies and their CA require treatment. An analogy with basketball may help to clarify. People in Condition IV are poor foul shooters (say 30% in practice) and are very anxious about shooting foul shots in a game. If we overcome only the anxiety, they still can only shoot 30% in a game. If we only improve their shooting ability in practice, their anxiety will still cause them to miss in the game. To produce a good foul shooter, then, we need to both improve shooting accuracy and reduce anxiety. Returning to communication, people in this condition must develop better skills and reduce their apprehension to become more effective communicators.

Condition II, low CA/unsatisfactory skills, includes people with nonrational cognitions. These are people who should experience high CA but do not. We could increase their CA, thus making their cognitions more rational, but that would only move them to Condition IV, certainly not solving a problem but only making it worse. The treatment for people in this condition is directed toward improving communication skills. If skill levels are raised, people in this condition move to Condition I, the desired condition. To employ our basketball analogy, these people are poor foul shooters but are not anxious about it. If we raise their skill level (say from 30% to 70%), we will produce good foul shooters in the regular game.

Condition III, high CA/satisfactory skills, also includes people with nonrational cognitions. These are people who should not experience high CA but do. The treatment for people in this condition is directed toward reducing their CA level, thus moving them into Condition I. In our basketball analogy, these are people who shoot well in practice (say 70%) but choke and shoot poorly in the game (say 30%). If we overcome their anxiety, we will produce good foul shooters in the regular games.

Treatment programs intended to produce effective communicators, then, are of two general types, those directed toward improving communications skills and those directed toward reducing CA. The different types of treatment programs are different solutions to different problems and should not be expected to have major effects on problems to which they are not directed. Reducing CA, for example, should not be expected to be associated with major increases in skill levels. Similarly, improving skills should not necessarily be expected to reduce CA because CA level may be either rational or nonrational. For people with one problem, one treatment should be chosen. For people with both problems, two treatments should be chosen.

The specific nature of treatment programs is beyond my focus here. However, for skill deficiencies regular classroom instruction in communication, individualized skills training, and rhetoritherapy (Phillips, 1977) are recommended. For trait CA problems, systematic desensitization (McCroskey, 1972; Paul, 1966) and cognitive restructuring (Fremouw & Scott, 1979) seem to be most appropriate. Various combinations of these treatments are possible. The choice of one should not be taken to exclude use of another.

### **EFFECTS OF CA**

The effects of CA have been the target of extensive research, particularly concerning trait-like CA, and have been summarized elsewhere (Daly & Stafford, 1984; McCroskey, 1977). My focus here is not on such specific variable research, but rather on theoretically more global effect patterns. The previous research, although extremely valuable for generating an understanding of how CA is manifested in ongoing communicative relationships of individuals, has been subject to considerable overinterpretation, if not misinterpretation. Effects observed in aggregate data analyses often are seen as regular behavioral outcome patterns for individual people with high or low CA. Such interpretations fail to recognize the high potential for the individual to deviate from the aggregate norm and the possibility of choosing from numerous behaviors, all of which would be theoretically consistent with the individual's CA level. My concern here, therefore, is directed toward the internal impact of CA, possible external manifestations of CA, and the role CA plays as a mediator between communicative competence and skill and ultimate communicative behavior.

Internal Impact of CA. As I have noted previously, CA is viewed from a cognitive rather than a behavioral perspective. Although CA indeed may have some behavioral implications, as I note later, it is experienced by the individual internally. The only effect of CA that is predicted to be universal across both individuals and types of CA is an internally experienced feeling of discomfort. The lower the CA, the less the internal discomfort.

Because people's cognitions are imperfectly related to their levels of physiological arousal, no physiological variable is predicted to be universally associated with CA across people or across types of CA.

The implications of this conceptualization of CA for both research and treatment cannot be overemphasized. Because CA is experienced internally, the only potentially valid indicant of CA is the individual's report of that experience. Thus self-reports of individuals, whether obtained by paper-and-pencil measures or careful interviews, obtained under circumstances in which the individual has nothing to gain or avoid losing by lying, provide the only potentially valid measures of CA. Measures of physiological activation and observations of behavior can provide, at best, only indirect evidence of CA and thus are inherently inferior approaches to measuring CA. Thus physiological and behavioral instruments intended to measure CA must be validated with self-report measures, not the other way around. To the extent that such measures are not related to self-report measures, they must be judged invalid. Currently available data indicate that such physiological measures and behavioral observation procedures have low to moderately low validity.4

External Impact of CA. As noted earlier, there is no behavior that is predicted to be a universal product of varying levels of CA. Nevertheless, there are some externally observable behaviors that are more likely to occur or less likely to occur as a function of varying levels of CA. When examining behavioral outcomes of CA, we must keep in mind the distinction among the types of CA discussed earlier. Trait-like CA, for example, will be manifested in behavior in a given situation only as it interacts with the constraints of that situation. A person with high trait-like CA, for example, may behave in a manner no different from anyone else if called to a meeting to be reprimanded by a superior. The behavioral manifestations of high CA I discuss here, therefore, presuppose that CA actually is present to a sufficient degree in a given situation to trigger the behavior. The link is most direct for the most situational type of CA. For trait-like CA the link is most tenuous. The behavioral prediction should be correct only when considering aggregate behavioral indicants of the individual across time and across contexts.<sup>5</sup>

For earlier research, see Clevenger (1959). More recently it has been found that although self-reported trait-like CA, as measured by the PRCA, is not highly correlated with physiological arousal, as measured by heart rate, the two combined are able to predict over 80% of the variance in self-reported state apprehension, as measured by a modification of the Spielberger state anxiety measure. The beta weights for the two predictors are nearly equal with little colinearity (see Behnke & Beatty, 1981). This indicates physiological measurement has some validity for estimating state CA, but is not associated meaningfully with trait CA.

<sup>&</sup>lt;sup>5</sup>For suggestions for testing this type of prediction, see Jaccard and Daly (1980). Recent research reports validity coefficients in the neighborhood of .50 for the PRCA and a measure of shyness when tested in this way (see McCroskey & Richmond, 1982).

Three patterns of behavioral response to high CA may be predicted to be generally applicable, and one pattern can be described as sometimes present but an atypical response pattern. The three typical patterns are communication avoidance, communication withdrawal, and communication disruption. The atypical pattern is excessive communication. Let us consider each.

When people are confronted with a circumstance that they anticipate will make them uncomfortable, and they have a choice of whether to confront it, they may decide either to confront it and make the best of it or avoid it and thus avoid the discomfort. Some refer to this as the choice between "fight" and "flight." Research in the area of CA indicates that the latter choice should be expected in most instances. In order to avoid having to experience high CA, people may select occupations that involve low communication responsibilities, pick housing units that reduce incidental contact with other people, choose seats in classrooms or in meetings that are less conspicuous, and avoid social settings. At the lowest level, if a person makes us uncomfortable, we may simply avoid being around that person. Avoidance, then, is a common behavioral response to high CA.

Avoidance of communication is not always possible. In addition, a person can find her- or himself in a situation that generates a high level of CA with no advance warning. Under such circumstances, withdrawal from communication is the behavioral pattern to be expected. This withdrawal may be complete—that is, absolute silence—or partial—that is, talking only as much as absolutely required. In a public speaking setting, this response may be represented by the very short speech. In a meeting, class, or small group discussion, it may be represented by talking only when called on. In a dyadic interaction, it may be represented by answering questions only or supplying agreeing responses with no initiation of discussion.

Both of these patterns reflect a distinct reduction in willingness to communicate and represent avoidance responses. If the person cannot avoid communication, however, the third pattern is likely.

Communication disruption is the third typical behavioral pattern associated with high CA. The person may have disfluencies in verbal presentation or unnatural nonverbal behaviors. Equally as likely are poor choices of communicative strategies, sometimes reflected in the after-the-fact "I wish I had (had not) said . . ." phenomenon. It is important to note, however, that such behaviors may be produced by inadequate communication skills as well as by high CA. Thus inferring CA from observations of such behavior is not always appropriate.

Overcommunication is a response to high CA that is not common but is the pattern exhibited by a small minority. This behavior represents overcompensation. It may reflect the "fight" rather than the "flight" reaction, the attempt to succeed in spite of the felt discomfort. The person who

elects to take a public speaking course in spite of her or his extreme stage fright is a classic example. Less easily recognizable is the individual with high CA who attempts to dominate social situations. Most of the time people who employ this behavioral option are seen as poor communicators but are not recognized as having high CA; in fact, they may be seen as people with very low CA. In our research on "compulsive communication," we found people who recognized themselves as "talkaholics" were equally as likely to be high or low communication apprehensives (McCroskey & Richmond, 1993, 1995).

To this point we have looked at the typical behaviors of people with high CA levels. We might assume that the behaviors of people with low CA would be the exact reverse. That assumption might not always be correct. Although people with low CA should be expected to seek opportunities to communicate rather than avoid them, and to participate in dyads and groups of which they are members rather than withdraw from them, people with low CA may also have disrupted communication and/or overcommunicate. The disruptions may stem from pushing too hard rather than tension, but the behaviors may not always be distinctly different to the observer. Similarly, persons who overcommunicate engage in very similar behavior whether the behavior stems from high or low CA. Although future research may permit us to train observers who can distinguish disrupted communication resulting from high CA from that resulting from low CA, and possibly distinguish between overcommunication behaviors stemming from the two causes, these behaviors are, and probably will remain, indistinguishable by the average person in the communication situation.

CA and Communication Behavior. Although recognizing a probably very important role for hereditary predispositions, I view communication behavior (and most other human behavior) as in part a learned response to one's environment. Because I wish to explore the role of CA as it relates to human communication behavior more generally, it is important to enunciate my assumptions about human learning. Following the lead of contemporary writers in educational psychology, I view human learning as composed of three domains: the cognitive (understanding or knowing), 6 the affective (feeling of liking or disliking), and the psychomotor (the physical capability of doing).

Because of inconsistent and confused use of terms within the communication literature, when I apply these domains to communication learning it is important that I make a distinction between communication "competence" and communication "skill." I see communication competence as

<sup>&</sup>lt;sup>6</sup>My use of cognitive previously referred to the distinction made in psychology between "cognitivists" and "behaviorists." This is a broader use of the term than the one relating to the domains of leaning. The reader should avoid confusing the two usages.

falling within the cognitive domain and communication skill as falling within the psychomotor domain. More specifically, communication competence is "the ability of an individual to demonstrate knowledge of the appropriate communicative behavior in a given situation" (Larson, Backlund, Redmond, & Barbour, 1978, p. 16). Communication competence, then, can be demonstrated by observing a communication situation and identifying behaviors that would be appropriate or inappropriate in that situation. Communication skill, on the other hand, involves actual psychomotor behavior. Communication skill is the ability of an individual to perform appropriate communicative behavior in a given situation. To be judged skilled, then, a person must be able to engage physically in appropriate behaviors.

The three components of desired communication learning, then, are communication competence (knowing and understanding appropriate communication behaviors), communication skill (being able to produce appropriate communication behaviors physically), and positive communication affect (valuing and wanting to produce appropriate communication behaviors). Any desired impact on long-term behavior of the individual requires that production of all these types of learning be achieved, whether by the "natural" environment, by a formal instructional system, or by some combination of the two.

CA can have a major impact in all three areas of communication learning and, consequently, on the long-term behavior of individuals. High CA is seen as a potential inhibitor of the development of both communication competence and communication skill and as a direct precursor of negative communication affect. Low CA, on the other hand, is seen as a facilitator of the development of communication competence and communication skill and as a precursor of positive communication affect.

With regard to communication competence, high CA is projected as a barrier to accurate observation of the natural environment and sufficient experience within it and as a barrier to the formal study of communication. Not only do people try to avoid studying things that cause them discomfort, but such discomfort may inhibit their learning when they do study it. The projected pattern for learning communication skills is seen in the same way. A major facet of psychomotor learning is practice. High CA will lead to less practice and possible misinterpretations of the outcomes of what practice is attempted. The impact of CA in terms of communication affect is even more direct. If we are fearful or anxious about something, we are not given to liking it. On the other hand, things that are not threatening are more likely to generate positive affect.

A major conclusion we can draw from this conceptualization of CA and communication learning is that high CA is highly associated with ineffective communication. As such, CA must be considered a central concern of any instructional program concerned with more effective communication

as a targeted outcome, whether the program is labeled a program in communication competence or a program in communication skill. Basic competencies and basic skills cannot be separated from the problem of high CA.

### SELF-PERCEIVED COMMUNICATION COMPETENCE

Phillips's early writings on "reticence" made clear that he was interested in studying people who had a tendency to avoid communication. That view of "reticence" and our contemporary view of "willingness to communicate" are very similar. It should not be surprising, therefore, that Phillips's two views of the causes of reticence—anxiety about communication and lack of communication skills—receive some support from the empirical research on WTC.

The support for the early anxiety explanation is direct. Correlations across cultures between CA, as measured by the PRCA-24, and WTC, as measured by the WTC scale, range from -.44 to -.52. Clearly, people who are highly communication apprehensive are less willing to communicate than are others who are less apprehensive.

The support for the communication skills explanation is less direct, and we may need to modify Phillips's position somewhat to claim full support. Previous work by reticence researchers (Keily, 1982) has failed to support the skills explanation. The communication skills of self-identified reticent speakers were not found to differ from those of nonreticent speakers. The reason for this lack of support may well be that it is not a person's actual communication competence or skill that determines their willingness to communicate, but rather it may be the individual's self-perception of that competence or skill. Phillips has implicitly confirmed that assumption by selecting people to be treated for reticence in large part on the basis of their self-reports of their competence and skills through a questionnaire followed by an interview.

I have indicated elsewhere that I do not see self-reports as a necessarily valid way to measure a person's actual communication competence or skill (McCroskey & McCroskey, 1988). Validity of such measures must be demonstrated by correlations with more direct behavioral or observational measures. However, I question whether some people really are aware of their own competence or skill. Given the number of incompetent communicators I come in contact with from day to day who continue to force their communication on others, self-reports do not have face validity in my mind!

Regardless of the validity of our self-perceptions, however, I believe we do make decisions about whether to initiate communication (at both trait and situational levels) on the basis of how competent we think we are. Hence, on a priori grounds I predicted a substantial correlation between such self-perceptions of communication competence and scores

on the WTC, and this prediction was confirmed across cultures with positive correlations between self-perceived communication competence, as measured by the SPCC scale (McCroskey & McCroskey, 1988), and WTC, as measured by the WTC scale. The correlations ranged from a low of 44 in Sweden (McCroskey, Burroughs, Daun, & Richmond, 1990) to a high of .80 in Micronesia (Burroughs & Marie, 1990).

The extremely high correlation in Micronesia is particularly interesting. The subjects in that study were college students at the University of Guam. The students come to the university from the various islands of Micronesia with a very wide variety of first languages. English is a second language for the overwhelming majority of these students, and all instruction, as well as most interpersonal contact, is conducted in that second language. Competence in English, therefore, is closely equated with competence in communication. Thus, communication skills developed over a lifetime in a first language may be seen as (or actually be) irrelevant when speaking in English. This group reported both the lowest WTC and the lowest SPCC scores of any cultural group yet studied, as well as the highest correlation between these scores.

It is clear from the research that has involved measurement of WTC, CA, and SPCC that these are very distinct constructs. However, these constructs are related in predictable ways. At this point, WTC appears to the best predictor of actual communication approach/avoidance behavior, whereas CA and SPCC appear to measure the factors that make the major contribution to prediction of a person's WTC.

Although I presume that the relationships discussed here are causal relationships, and the limited data available that permit causal inferences point in this direction (MacIntyre, 1994), more research is needed to clearly delineate the nature of causality in this area. At this time we certainly cannot rule out an overwhelming impact of genetics in the determination of individuals' levels of WTC, CA, and SPCC, as well as the interrelationships among these variables.

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