

ORAL COMMUNICATION APPREHENSION: A SUMMARY OF RECENT THEORY AND RESEARCH

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Editors Note: With this issue we inaugurate a new section of HCR devoted to summaries of research and theory in specialized areas within the field of human communication. Papers in this section will be designed to bring research and theory in a given area together so that both specialists and nonspecialists can determine the "state of the art" in that area up to the time the paper is published. Scholars who wish to prepare papers for this section are requested to contact the editor and make their interests known. Generally, papers for this section will be commissioned. However, unsolicited papers will be given full consideration.

For over four decades scholars concerned with oral communication have focused attention on the impact of a person's fear or anxiety about communication on a person's communication behavior. From the early work of Lomas (1934) and Henning (1935) to the more recent work of Phillips (1965, 1968) and McCroskey (cf. 1970, 1975, 1976c, 1976e) it has been consistently observed that some people are more apprehensive orally than are other people and that this apprehension has a negative impact on their communication behavior as well as on other important aspects of their lives.

Research concerned with fear and anxiety about oral communication has been conducted under a variety of labels, most notably stage fright (cf. Clevenger, 1959), reticence (cf. Phillips, 1968), shyness (cf. Zimbardo, 1977), audience sensitivity (cf. Paivio, 1964), and communication apprehension (cf. McCroskey, 1970, 1975). The term "communication apprehension," or more simply, CA, has been chosen for our purpose here because it more broadly represents the total of the fears and anxieties studied previously, and the research conducted under the other labels can be integrated easily within the context of the theory underlying the work with CA.

CA is defined as *an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons*. The person with a high level of CA will avoid communication much of the time in order to avoid

experiencing the fear or anxiety the person has learned to associate with communication encounters. This, of course, does not mean that the person with high CA will never engage in oral communication. Rather, the person will choose to do so much less frequently than persons with lower levels of CA. An individual with high CA may also be described as a "reticent" individual. Phillips (1968) has defined a "reticent" person as one "for whom anxiety about participation in oral communication outweighs his (or her) projection of gain from the situation" (p.40).

It is important at the outset that we distinguish among the constructs of "communication apprehension" (McCroskey, 1970), "reticence" (Phillips, 1968, 1977), and "unwillingness to communicate" (Burgoon, 1976). In much of the previous literature these constructs have been treated as interchangeable. This has led to confusion in the application of the research from one area within the context of another. "Reticence" is the most global of the constructs in that it refers to a trait of an individual which results in that individual characteristically remaining silent rather than participating in communication. While the original formulation of the construct identified "anxiety" as the causative agent producing this characteristic behavior pattern (Phillips, 1968), later theoretical statements have noted additional causative agents (Phillips, Dunham, Brubaker, & Butt, 1970), and the most recent formulation has removed anxiety

from its centrally defined causative role (Phillips, 1977). The "unwillingness to communicate" construct is essentially the same as the most recent formulation of the reticence construct. It focuses on a global predisposition to avoid communication and recognizes a multiplicity of potential causative elements which could lead to such a predisposition, including apprehension, alienation, low self-esteem, introversion, and so forth.

The construct of "communication apprehension" should be considered a subconstruct of reticence or unwillingness to communicate. While the construct specifies that people with high levels of CA characteristically avoid and/or withdraw from communication, it differs from the other constructs in that it specifies only fear and/or anxiety as the causal element. Although theory relating to CA recognizes that avoidance and withdrawal behaviors can be the result of other causes, these are seen as falling beyond the scope of the CA construct. The constructs of "audience sensitivity" and "shyness" are essentially similar to the CA construct. The differences in naming of the construct appear to be more function of academic discipline in which they were formulated than any theoretic or empirical distinctions. "Shyness" comes from social psychology and "audience sensitivity" originated in developmental psychology, while "communication apprehension" evolved from earlier work in speech communication.

STATE VERSUS TRAIT APPREHENSION

Most recent research involving CA has taken the perspective that CA is a broad-based response to oral communication. Thus, CA is conceptualized as a trait of the individual which has many implications for the person's everyday life. Spielberger (1966) and Lamb (1973) have made a useful distinction between what they call "trait" and "state" apprehension. Trait apprehension is characterized by fear or anxiety with respect to many different types of oral communication encounters, from talking to a single person or within a small group to giving a speech before a large crowd. State apprehension, on the other hand, is specific to a given oral communication situation, such as giving a particular speech to a group of strangers or interviewing with an

important person for a new job at a given time and place.

Although our primary concern here will be with trait CA, we need also to examine state CA so we can draw a clear distinction between them. The most striking example of state CA is the phenomenon commonly called "stage fright." Stage fright is the fear or anxiety a person experiences when one communicates orally in a situation where other individuals are in a position to observe and evaluate the communication attempt. Giving a public speech, acting in a play, singing before an audience, and participating in a public symposium are common situations which cause many people to experience stage fright. Research has indicated that stage fright is experienced by most people at one time or another. In fact, in a nationwide survey of American adults, Bruskin Associates (1973) found that the most frequently reported fear was that of speaking in public. Thus, state CA is a normal response that most people experience when confronted with oral communication in a public setting. Other people may have little difficulty with a public speaking experience but undergo high state CA when forced to interact with a stranger or talk to a boss or supervisor. It should be stressed that state CA is a normal response to a threatening situation experienced by most normal people and is in no way pathological. In fact, it would not be unreasonable to suspect the emotional stability of an individual who never experiences state CA in the face of a threatening oral communication situation.

While state CA is a normal experience of most people, trait CA is not characteristic of normal, well-adjusted individuals. People with high levels of trait CA characteristically experience high levels of apprehension about almost all oral communication encounters, both those which rationally could be described as threatening and those which could not be so described. While people with high levels of trait CA are far less common than those with occasional high levels of state CA, the extent of this problem is far greater than many would suspect. Extensive studies of college student populations suggest that approximately 20 percent of the students in major universities may be appropriately described as having high trait CA, with even higher percentages existing in some smaller colleges and

community colleges (cf. McCroskey, 1970, 1976b). Similar frequencies of high trait CA have been observed in public school settings (at each level, K-12), among adult populations, and among senior citizens (McCroskey, 1976d, Moore, 1972, Scott, McCroskey, & Sheahan, in press). While some people who suffer from high levels of trait CA also have speech problems, such as articulation or voice disorders (and stutters almost always have high trait CA), the overwhelming majority have no problems with basic speech skills. This has led Phillips (1968) to refer to the problem of high trait CA as the "pathology of the normal speaker." It is this pathology, its causes, measurement, correlates, effects, and treatment, with which the remainder of this paper is concerned. Unless specifically noted, hereafter "CA" will refer to this trait.

CAUSES OF ORAL COMMUNICATION APPREHENSION

While the causes of CA are not, and may never be, fully known, both case study analyses (Phillips & Butt, 1966) and broader surveys (Wheeless, 1971) suggest the development of CA during early childhood years. It is clear that many children enter kindergarten with high levels of CA already established. Thus, if CA is not a hereditary function, and there are few data pointing in this direction, the cause of CA must lie primarily in a child's experiences during the formative years.

Since a child probably is not born with CA, it is important that we describe how the child acquires this trait. We believe it is a learned trait, one that is conditioned through reinforcement for the child's communication behaviors. It is well established that a child will learn to repeat behaviors that are reinforced, while behaviors that are not reinforced generally will be extinguished over time (cf. Bugelski, 1971). Thus, if a child is reinforced for being silent and is not reinforced for communicating, the probable result is a quiet child. In addition, if the child not only is not reinforced for communicating, but often experiences some aversive experience (parent shouting, big brother hitting) when attempting to communicate, the quiet child result is even more probable. Such a child is likely to enter the school environment with a well-established, high level of

CA. The child also is likely to have developed communication skills at a lower level than other children, since the avoidance of communication conditioned into the child early will have limited the child's communication experiences. As a consequence, the school is very likely to strengthen the CA response. While the school environment demands the child communicate, the lower skill level of the child likely will result in less reinforcement for communication than that given to other children (by both teachers and peers). In addition, the school demands silence much of the time. The child with high CA will find it easy to conform to this requirement, and will be reinforced for it, but also will observe the aversive stimuli given to the "normal" children who are not silent when the school expects quiet. This will provide additional reinforcement for the child's withdrawal behavior. From this point on, the high level of CA is most likely to sustain itself through similar interactions with the environment.

While the extensive literature in the field of learning provides strong support for the above explanation of the conditioned learning of CA, research concerning the treatment of CA provides additional support. Treatment approaches based on counter-conditioning, which we will discuss later, have been found to be particularly effective for the reduction of high levels of CA (cf. McCroskey, 1972).

Although the conditioning-through-reinforcement theory advanced above probably is an adequate explanation of *how* CA is acquired (Ickes, 1971), the theory does not explain why one child is conditioned in this way while another is not, even though in some cases the two children may be in the same family. While several theoretical explanations have been advanced, only a few have received empirical support. Most of these theoretical explanations point to differences between families, and cannot explain differences which occur within a single family.

CA AND DIFFERENCES BETWEEN FAMILY - ENVIRONMENTS

It is obvious that differences among parents and family environments could result in differential reinforcement patterns for children's communica-

tion. But what specific differences make a contribution are much less obvious. The extensive survey and case study efforts of Phillips and his associates (1968) have suggested several possibilities. For example, Phillips and Butt (1966) found that a disproportionately large percentage of the college students they identified as experiencing high levels of CA were children from first and second generation ethnic families. Why such children are more likely to develop high CA is not completely clear; however, two explanations appear tenable. First, such children may have more difficulty acquiring language skills because of the mixture of languages to which they are exposed, particularly after entering school, and thus they may receive less reinforcement for communication. Second, the parents may have lower language and communication skill levels and consequently be more hesitant to provide reinforcement (or provide mixed reinforcement patterns) to their child who is learning to communicate in a society which is linguistically foreign to them.

Phillips (1968) also advances the attitude of the parents toward communication as a possible explanation of the development of CA. If parents use communication as a weapon against each other and/or against the children, the child may be conditioned to avoid communication to escape such abuse. Such children may fail to learn that communication may be useful to obtain the rewards available in the society and, thus, fail to be reinforced for successful communication attempts.

Recently, Richmond and Robertson (1977) advanced the theory that children who are reared in a rural environment are more likely to develop high levels of CA than are children reared in a more urban environment. They reasoned that in the rural environment children are typically exposed to fewer adults and are less likely to encounter situations where effective communication is necessary to avoid aversive consequences. In their study of 813 college students from Nebraska they found significantly higher levels of CA among students who had lived most of their lives on farms or in towns with a population under 5,000 than among students from cities with populations of 5,000 to 50,000 and from large urban areas. In an earlier study, Grutzeck (1970) found that rural children have more difficulty than others in communicating according to the

norms of expectancy of their schools. Taken together, these studies suggest children from rural environments may develop lower levels of communication skill, thus receiving less reinforcement for communication, which may lead to heightened levels of CA.

While these explanations for differences in CA levels all are persuasive, their impact is limited to differences between families. Little attention has been directed toward differences in CA level among children within the same family. Randolph and McCroskey (1977) advanced what initially appeared to be a promising theory designed to explain differential CA levels among children within the same family as a function of birth order and family size. The first study they conducted yielded substantial support for their theory (Randolph & McCroskey, 1977), but subsequent research, which involved a much larger sample of subjects permitting a more powerful test of the theory, indicated that the predictive power of the theory was minimal, although statistically significant in some cases (Randolph, 1977). At this point, therefore, there is no empirically supported theoretical explanation of why some children have higher (or lower) CA levels than other children in the same family.

MEASUREMENT OF ORAL COMMUNICATION APPREHENSION

The measurement of oral CA has been a major interest of many researchers over the past four decades. During most of this period measurement of CA has focused on state rather than trait CA. The early work in this area has been summarized by Clevenger (1959) and thus will not be examined thoroughly here. Rather, we will focus our attention on current measurement approaches. In order to avoid confusion, we will divide our discussion between state and trait measurement.

Measurement of State CA

The measurement of state CA has focused almost exclusively on stage fright. Early research identified three major approaches to measuring stage fright, including Redding's physiological approach (1936), Henning's observer rating approach (1935),

and Gilkinson's self-report approach (1942). More recent research indicates a continuing emphasis on the same three approaches. Contemporary examples include Behnke and Carlile's work with physiological measurement (1971), Mulac and Sherman's work with rating scales (1974), and Porter's work with self-report scales (1974). From the early work, only Gilkinson's Personal Report of Confidence as a Speaker (1942) has been retained in usage, and the shortened version of the instrument reported by Paul (1966) has virtually supplanted the original measure.

Clevenger (1959) has noted that the correlations among these various approaches in the early research were generally low, thus indicating little isomorphism among the measurement approaches. Later research has failed to improve the picture. Clevenger's conclusion in 1959 could as well be written today:

Results of comparisons of various indices of stage fright suggests that the emotional disturbance which is recorded on physiological measuring devices is different from both the emotional disturbance which the speaker reports having experienced, and the emotional disturbance which a group of judges report having observed, and that the latter are different from each other. (p. 137)

Thus, it would appear that selection of an appropriate measure of state CA depends on how one chooses to define the construct. Is it a cognitively experienced state, a physiologically experienced state, or a behavior pattern observable by others?

Since we have defined CA (including both state and trait versions) as a cognitively experienced state, we obviously prefer to select a measure that is cognitively based, such as the Porter self-report measure. This type of measure has been the choice of the overwhelming majority of researchers in both communication and psychology who have worked with the development and testing of treatment approaches for helping people to overcome CA, although several have included other measures as well. In addition to this definitionally-based preference, as has been noted elsewhere (McCroskey, 1970, 1975), there are problems with the other measurement approaches which are difficult if not impossible to overcome. Physiological measure-

ment is expensive, cumbersome, and requires considerable skill and training on the part of the researcher. In addition, it is subject to problems of interpretation, because simple activation of physiological systems may as well come as a result of enthusiasm as it does from CA. Observer ratings suffer from similar problems of validity. While observers with extensive training can be taught to record similar observations about a speaker's behavior, inexperienced speakers (and in some cases more experienced ones) often will exhibit many of the behaviors generally thought to be associated with stage fright even though the speaker is confident and not experiencing CA, while many highly frightened speakers will not exhibit those behaviors as a result of extensive training and experience through which they have learned to control their external behaviors. In addition, those with the highest levels of CA are seldom available for observation, since they simply refuse to engage in public speaking at all!

The research involving measurement of state CA, therefore, presents a less than perfectly clear picture. However, at this point the measure of state anxiety developed by Spielberger (1966) shows the most promise for yielding valid data. This instrument consistently has proven reliable and has produced results consistent with theoretical predictions in several studies. A major advantage of this instrument, because of the way it is constructed, is that it can be employed across the full range of communication contexts. This permits direct comparison of state CA levels between even widely divergent communication contexts. In recent research we have found the reliability of the instrument consistently to exceed .90.

Measurement of Trait CA

While the measurement of state CA has been fraught with definitional problems and conflicts among approaches, as noted above, no similar difficulty has arisen in the research concerned with trait CA. Scholars concerned with trait CA consistently have viewed it as a cognitively experienced phenomenon. While the theory underlying trait CA research argues that there are behavioral correlates of the cognitive experience (physiological corre-

lates have not yet been considered seriously), in no case has a one-to-one correlation between behavior and cognitively experienced CA been expected. It has been recognized that many behaviors that would be predicted from knowledge that a person experiences a high level of CA can also be a result, either in part or whole, of some other influence. For example, a person with high CA might be expected to communicate less in a small group setting, but a person with lower CA who is not interested in the topic of the discussion might evidence the same behavior. On the other side of the coin, the person with high CA might be expected to be less willing to interview for a job with an important individual than would a person with lower CA, but the prospect of unemployment might motivate the person with high CA to undertake the threatening experience anyway.

Since researchers have consistently viewed trait CA as a cognitively experienced phenomenon, it is not surprising that the self-report approach to measurement of trait CA has held exclusive sway. Until recently, one self-report scale has been preeminent in the research. This scale, the Personal Report of Communication Apprehension (PRCA), was first reported in 1970 by McCroskey (1970) and has been employed in over 50 studies since that time. The instrument consistently has yielded reliability estimates above .90 and a summary of the research employing the instrument through 1975 provided a comprehensive argument in support of its validity as a measure of oral trait CA (McCroskey, 1975).

Two additional instruments have received some use in the literature, the Lustig Verbal Reticence Scale (1974) and the Phillips-Erickson Reticence Scale (Rosenfeld & Plax, 1976). Both of these instruments have been found to correlate with the PRCA at about .70. A later version of the Lustig scale (Mortensen, Arntson, & Lustig, 1977) has been found to have a similar relationship with the PRCA. Burgoon (1976) has recently reported a new instrument called the Unwillingness-to-Communicate Scale which includes two dimensions, one labeled "approach avoidance" (with items isomorphic with the definition of trait CA) and the other labeled "reward" (with items not directly related to the definition of the trait CA construct). The observed correlation between the

approach-avoidance factor and the PRCA was reported as .69, while the reward factor was not significantly correlated with the PRCA. However, there is an important distinction between the PRCA and the other instruments. While the items in the PRCA specifically relate to fear or anxiety about communication, many of the items on the other instruments relate to a desire to communicate or a report of communication behavior. Thus, these instruments cannot be considered direct measures of trait CA. Rather they are measures of a general predisposition toward communication which may develop as function of social introversion, reticence, ethnic heritage, or a variety of other sources as well as trait CA. Consequently, these instruments may more appropriately be described as measures of Burgoon's (1976) "unwillingness to communicate" construct than trait CA. Clearly, all of these measures are tapping the underlying construct of trait CA.

A variety of new scales designed to measure trait CA are in advanced stages of development. Scott, McCroskey, and Sheahan (in press) have recently reported an instrument designed to measure trait CA among people in an organizational environment. Items composing the scale were drawn from the PRCA, Lustig, and Burgoon instruments as well as some items specifically written for the business or government organizational environment. Garrison and Garrison (1977) have developed a scale, named the Measure of Elementary Communication Apprehension, which is designed to measure trait CA among preliterate children. McCroskey (1976a) has also developed a scale, called the Personal Report of Communication Fear (PRCF), which is to be administered orally to preliterate children as well as in written form to others of all ages. In this same research program, McCroskey (1976a) has developed a short (10-item) version of the PRCA which correlates above .90 with the original version and a Verbal Activity Scale which is designed to measure self-perception of the amount of oral communication activity in which an individual engages independently of the measurement of trait CA.

Although each of these new measures holds promise for future research in the area of trait CA, and to the extent they are correlated with the original PRCA have concurrent validity, none have yet been

used widely enough to establish strong, independent arguments for their validity. At this time, the only measure with clearly established reliability and validity as a measure of oral, trait CA is the PRCA (McCroskey, 1970, 1975).

CORRELATES OF ORAL CA

Since CA is conceptualized as a trait of an individual, it is reasonable to suspect that this trait might be associated with a variety of other personality traits of the individual. Several studies have examined this possibility and the results suggest that CA is meaningfully associated with a fairly wide variety of personality variables but has little or no association with others. In one major study, McCroskey, Daly, and Sorensen (1976) found CA to have a moderately high positive correlation with general anxiety and moderately high negative correlations with tolerance for ambiguity, self-control, adventurousness, surgency, and emotional maturity. Significant but less meaningful correlations were found between CA and dogmatism, external control orientation, trustfulness, and Machiavellianism (positive), and cyclothymia, dominance, character, confidence, and need to achieve (negative). No significant relationships were observed between CA and intelligence, sophistication, self-sufficiency, sensitivity, eccentricity, or radicalism. A similar personality profile appears in the results of a similar study reported by Rosenfeld and Plax (1976).

In addition to the research focusing on general personality structure and CA, several studies have examined the relationship of individual personality variables to CA. Huntley (1969) found a positive correlation of .36 between CA and introversion as measured by the Eysenck instrument. Lustig (1974) found a $-.48$ correlation between CA and self-esteem, and a $-.52$ correlation between CA and self-acceptance. In an extensive series of studies involving a wide variety of subject populations, McCroskey, Daly, Richmond, and Falcione (1977) found negative correlations between CA and self-esteem ranging from $-.52$ to $-.72$. A similar strong relationship between low self-esteem and high CA was found by Snavely and Sullivan (1976) and Snavely, Merker, Becker, and Book (1976). A

recent study reported by Witteman (1976) found a $-.45$ correlation between CA and an individual's innovativeness or willingness to accept change.

The picture of the person with a high level of CA that emerges from these studies generally is a negative one. Such a person might be described as typically an introverted individual who lacks self-esteem and is resistant to change, has a low tolerance for ambiguity, and is lacking in self-control and emotional maturity. Persons at the other end of the CA continuum, on the other hand, might be described as typically adventurous, extroverted, confident, emotionally mature individuals with high self-esteem, tolerant of ambiguity, and willing or even eager to accept change in their environment. Based upon profiles such as these, many hypotheses have been tested concerning the behaviors and attitudes of people with different levels of CA, and of other people's perceptions of such individuals. We will consider the results of many of these studies in the next section of this paper. However, before continuing to that section, we need to consider one additional correlate of oral trait CA—CA concerning writing.

Phillips (1968) has observed that some of the college students he has identified as reticent have indicated a preference for writing, and may even develop higher than normal skills in this form of communication in order to compensate for their perceived inadequacies in oral communication. Until recently the relationship between CA concerning oral communication and CA concerning written communication could not be tested because there was no available measure of the latter trait. Daly and Miller (1975a, 1975b) have recently reported the development and validation of such a measure, which they call the Writing Apprehension Test (WAT). Correlations between the PRCA and the WAT have ranged between .30 and .40 for a wide variety of samples of both college students and other adults. This moderate positive relationship between oral and written CA traits suggests the probability that the students Phillips (1968) found to substitute writing for oral communication represent the exception rather than the rule. While correlations of this magnitude do not rule out the possibility of a person having high CA for oral communication and low CA for written communication, they do suggest that

it is more likely for a person to be high in both or low in both than to be high in one and low in the other.

EFFECTS OF ORAL CA

While the title of the section focuses on "effects," it should be stressed at the outset that causality in most of the studies to be discussed below is inferred rather than directly demonstrated. Most of these studies have been conducted in naturalistic or simulated environments and have not involved specific experimental manipulations which would permit direct inferences of causation. However, since CA has been demonstrated to develop in early childhood (Wheless, 1971), it is clearly a potential antecedent condition of the effects examined in these studies. While the presence of a third variable which could function as both a cause of CA and the other observed effects cannot be ruled out entirely, the casual inferences suggested by these studies should be considered tenable until such time as that variable (or those variables) is isolated and identified through research.

Before examining the specific research related to the effects of CA, we need to outline the general theoretical framework within which most of this research has been conducted. Three general theoretical propositions are central to this line of research, all of which are cast in terms of persons who experience a high level of CA:

1. People who experience a high level of CA will withdraw from and seek to avoid communication when possible.
2. As a result of their withdrawal from and avoidance of communication, people who experience a high level of CA will be perceived less positively than people who experience lower levels of CA by others in their environment.
3. As a result of their withdrawal and avoidance behaviors, and in conjunction with the negative perceptions fostered by those behaviors, people who experience a high level of CA will be negatively impacted in terms of their economic, academic, political, and social lives.

Each of these theoretical propositions has received support from the available research. We will

summarize the research relating to each proposition in turn.

CA and Communication Avoidance

Virtually all of the studies that have tested hypotheses based on the proposition that people with high CA will seek to withdraw and avoid communication have produced supportive results. In addition, some data are available which support the proposition which were not collected with the intention of testing the proposition. We will consider these data first.

In a continuing research program designed to test methods of helping students to overcome high CA, McCroskey (1970) screened all students entering public speaking classes at two major universities. Between one and two weeks after the initial screening, attempts were made to contact students with high CA and offer them a treatment program. In both institutions it was found that during that period between 50 and 70 percent of these students had dropped the class, even though for most it was a required course. This compared with an attrition rate of 5 to 10 percent for students with low or moderate CA. In another university the basic course program was modified to permit students to choose among classes focusing on dyadic, small group, or public communication. During the first year of the operation of that new program, information was not readily available to the students in advance which would indicate the differential nature of the three classes (no catalog listing, for example). The proportion of individuals with high CA enrolled was comparable across the three courses. Two years later, however, there was readily available information on classes, revealing very few people with high CA enrolled in the public speaking course (McCroskey, 1975).

Another incidental observation of the withdrawal and avoidance behavior of people with high CA occurred when the instructor of a section of a course in interpersonal communication reported to her supervisor that she was having extreme difficulty getting her class to interact, but there was no shortage of interaction in her other two sections of the same course. Since all students in the course had been administered the PRCA at the beginning of the

term, the scores of the students in that section were examined. It was found that virtually all of the students had high levels of CA. Subsequently it was noted that this section had been added to the schedule during the final day of registration to accommodate freshmen who had failed to appear for a previously scheduled orientation and advisement period and had not seen an advisor until the last moment.

In each of the above cases the data were obtained incidentally and were not collected in order to test any hypothesis. Nevertheless, they demonstrate a clear pattern of avoidance of communication on the part of people with high levels of CA, particularly such threatening communication experiences as public speaking and interviewing with an influential person. The following studies were designed specifically to test the prevalence of the behavior in a variety of additional settings.

One method of avoiding communication, particularly in a small group communication setting, is to talk less. If a person does not talk, others may attempt to draw the person into the group for a while, but likely will reduce such attempts over time. Five studies have tested the hypothesis that people with high CA talk less in a small group setting and all five found significant support for the hypothesis (Hamilton, 1972; Sorensen & McCroskey, in press; Weiner, 1973; Wells, 1970; Fenton & Hopf, 1976). In addition, it has been found that when people with high CA do participate, their verbalizations are likely to differ from those of people with lower CA. For example, Powers (in press) has found that people with high CA include significantly more rhetorical interrogatives (i.e., *you know?*, *you see?*, *okay?*) in their interaction than other people. Weiner (1973) and Wells (1970) found that when people with high CA do participate, their comments are likely to be irrelevant to the ongoing discussion. This has been explained as a function of wanting to avoid further interaction. If what a person says is not relevant, it is less likely that additional interaction will be pressed by other group members. Jablin and Sussman (1976) report that highly apprehensive members of brainstorming groups tend to be lower producers of original ideas than the less apprehensive members of the groups.

In one of the above studies, Weiner (1973) went further in the examination of the behavior of people with high CA in a small group setting. He had each person indicate a preference for seating position in a variety of group settings. He found a clear and significant pattern indicating that people with high CA avoided seating positions which have been demonstrated in previous research to be the focal points of interaction and influence. People with low levels of CA, on the other hand, indicated a marked preference for such seats.

Although people with high levels of CA presumably want to avoid communication in general, it may also be hypothesized that some types of communication will appear more threatening to the individual and thus avoided even more than others, such as was the case with public speaking and seeing an advisor as previously noted. Following this line of reasoning, three studies have tested the hypothesis that people with high CA will engage in less self-disclosure than other people. All three obtained support for the hypothesis (Hamilton, 1972; McCroskey & Richmond, in press; Wheelless, Nesser, & McCroskey, 1976). Whether this pattern is produced by lack of self-esteem, the desire to avoid the reciprocity and subsequent interaction normally produced by self-disclosive communication, or some other element, is not known. It is known, however, that these lower levels of self-disclosure are not simply a function of the overall lower total amount of talking. After correcting for the total amount of talking, Hamilton (1972) found that the self-disclosure level of the individuals with high CA was significantly lower than that of individuals with lower CA.

A similar line of thought led McCroskey and Andersen (1976) to hypothesize that students with high CA would prefer large lecture classes over small classes which permit (or require) extensive participation on the part of the student, while the preference pattern for students with lower CA would be reversed. Their results confirmed the hypothesis. In another study of student behavior in the instructional environment, Scott, Yates, and Wheelless (1975) found that in a modified personalized system of instruction (PSI) the students with high CA were significantly less likely to seek the assis-

tance of available tutors than were students with lower levels of CA. In still another study of student behavior, McCroskey and Sheahan (1976) found that while students with low levels of CA chose seats in the front and center of a classroom with traditional, straight-row seating for 25 students, the students with high CA avoided these seats and instead chose seats on the periphery of the room, on the sides and in the back. The front and center area, of course, is the most accessible to the teacher and the place where a person is more likely to be called upon to participate. An extension of this research (McCroskey & McVetta, 1977) replicated the previous findings concerning classroom seating, and also found that in semicircular and modular seating arrangements the students with high CA avoided the seats in areas that would be likely to induce high interaction requirements.

McCroskey and Sheahan (in press) have also investigated the social behavior of college students with regard to their level of CA. As hypothesized, they found that students with high CA, interacted less with peer strangers, and were more likely to engage in exclusive (steady) dating. The latter finding was predicted on the basis that, for a person with high CA, it would be difficult to engage in the normal courtship behaviors leading to dates with a variety of persons and, consequently, steady dating would be an attractive alternative to the option of interacting with a significant number of other people in order to secure dating partners. In an extension of this research, McCroskey and Kretzschmar (1977) found that college graduates with high CA are more likely to marry immediately upon graduation than graduates with lower CA. This effect was hypothesized on the basis of the presumed difficulty for the person with high CA to engage in courtship behaviors and the attractive alternative of marrying the person with whom the person had been dating steadily in college.

Although McCroskey and Sheahan (in press) did not find any difference between people with high and low CA in their desire for dates, other research has found a general pattern indicating that people with high CA find other people in their environment to be less attractive than do people with lower CA. This has been observed among college students

(McCroskey, Daly, Richmond, & Cox, 1975) as well as adults in an organization environment (Falcione, McCroskey, & Daly, 1977).

One of the clearest predictions based on the proposition that people with high CA will seek to avoid communication is that they will prefer occupations that require less communication. Daly and McCroskey (1975) tested this hypothesis and found that not only was this pattern clearly present, and the reverse pattern present for people with low CA, but that the pattern held even when the occupations requiring more communication also provided more status and economic reward than the occupations requiring less communication. In a follow-up study, Scott, McCroskey, and Sheahan (in press) not only found that the preferences observed in the previous study were shared by government employees but also that the individuals actually held jobs that conformed to their preferences. In addition, it was hypothesized that people with high CA would be less likely to desire advancement than others, since they would foresee that such advancement would increase the communication requirements imposed on them. This hypothesis was also supported.

In a study that may have probed the outer reaches of the generalizability of the withdrawal and avoidance proposition, McCroskey and Leppard (1975) hypothesized that people with high CA would prefer housing that was remote from centers of interaction while people with low CA would prefer housing closest to such centers. The study required the subjects to indicate their preference for housing within a variety of settings including a dormitory, a mobile home park, and a suburban housing development. On the basis of previous research that had identified where the primary interaction zones were in each of these settings, predictions were made for each type of housing. The hypothesis was supported: people with high CA preferred remote housing while people with low CA preferred housing near major interaction areas.

The pattern of evidence generated from this group of studies is clear and strong. People who experience a high level of CA will withdraw from and seek to avoid communication whenever possible.

CA and Other People's Perceptions

As was the case with the research relating to the previous proposition, virtually all of the related research is supportive of the proposition that people who experience a high level of CA will be perceived less positively by others in their environment than will people who experience lower levels of CA. This appears to be true regardless of the CA level of the other person. Even people with high CA tend to perceive other people with high CA less positively than they perceive other people with lower CA (cf. McCroskey, Daly, Richmond, & Cox, 1975).

The work of Knutson and Lashbrook (1976) provides a useful base upon which to begin our review of the effects of CA on other people's perceptions. Their research focused on the relationship between perceived social style and CA. As they hypothesized, people with high CA were perceived as low in both assertiveness and responsiveness, the two central components of social style perceptions, while people with low CA were perceived high in both assertiveness and responsiveness. Previous research by Merrill (1974) characterized people who are perceived as responsive as warm, communicative, easy-to-know, friendly, and relationship-oriented; people low in responsiveness were characterized as cool, independent, uncommunicative, disciplined, rational, hard-to-know, task oriented, and business-like. Merrill (1974) also characterized people perceived as high in assertiveness as competitive, risk takers, fast to take action, take-charge individuals, and directive. People perceived as low in assertiveness were characterized as cooperative, risk-avoiders, slow to take action, "go-along" persons, and nondirective.

It will be noted in the above descriptions that the elements that characterize the behaviors of both low responsiveness and low assertives are typified by reduced communication while high responsiveness and high assertives reflect the opposite pattern. It is clear from the Knutson and Lashbrook (1976) research, therefore, that communication behaviors predicted for people with high and low CA are observed by other people in their environment and are reflected by the other people's perceptions of the level of responsiveness and assertiveness.

Since it is clear that differential behaviors of people with high and low CA are observable by others, it is useful to consider the results of research that has examined the impact of such differential communication behaviors on other people's qualitative judgements of the people who engage in the behaviors. Four studies are particularly relevant. McCroskey, Hamilton, and Weiner (1974) found that people who exhibited high tension in their communication behaviors in a small group were perceived to be less socially attractive, and less interpersonally similar. Daly, McCroskey, and Richmond (in press) found that there was a generally positive linear correlation between the amount of time a person was perceived to talk in a small group and other people's perceptions of their competence, sociability, extroversion, composure, power, social attractiveness, and task attractiveness. Similarly, Freimuth (1976) found that as the amount of silence increased during the presentation of a speech, there was a corresponding decrease in perceived competence of the speaker. Mulac and Sherman (1975) also observed a significant negative relationship between perceived anxiety in male public speakers and perceptions of their competence and trustworthiness.

Each of these studies suggests that behaviors that we would expect people with high CA to exhibit more frequently in their communication are associated with negative perceptions on the part of other people. Studies specifically directed toward testing this hypothesis have produced supportive results.

People exhibiting high CA, compared to those with lower CA, have been found to be perceived as less socially attractive, less task attractive, less competent, less sexually attractive, less attractive as a communication partner, less sociable, less composed, and less extroverted but of slightly higher character (McCroskey, Daly, Richmond, & Cox, 1975; McCroskey & Richmond, 1976; Quiggens, 1972; Fenton & Hopf, 1976; Wissmiller & Merker, 1976). In addition, they are perceived to exert less leadership in a group (Wenzlaff, 1972; Fenton & Hopf, 1976). With the presence of these generally negative perceptions, therefore, it is not surprising that three studies (Hurt & Joseph, 1975; Hurt, Preiss, & Davis, 1976; McCroskey & Richmond, 1976) have found that people are very unlikely to

turn to a person who has a high level of CA for opinion leadership. Not only do people indicate that they will not turn to a person with high CA for opinion leadership—apparently they do not. Witterman (1976) recently found a significant negative correlation between CA and the frequency with which his subjects reported that others turned to them for opinion leadership.

Not only has high CA been found to be associated with negative interpersonal perceptions, it has also been found to generate negative expectations of the individuals' future success in both the academic world and the business world. McCroskey and Daly (1975), for example, found that teachers exposed to a brief description of an elementary school child with high CA, as compared to teachers exposed to a similar description of a child with low CA, indicated expectations that the child would have lower overall academic achievement, lower achievement in all subjects in the elementary school curriculum, have less satisfactory relationships with other students, and have lower probability of success in future education.

In a study employing a simulation of the job applicant screening process, with students in their second or third year in a school of business administration, Richmond (1977) found that job applicants with excellent credentials—except for passing references to behaviors typical of people with high CA, as compared to comparably credentialed applicants with low CA—were perceived to be less task and socially attractive and were projected to be less satisfied in their job, to have poorer relationships with their peers, supervisors, and subordinates at work, to be less productive, and to have less likelihood for advancement in the business organization. In a very similar study, Daly and Leth (1976) found that the high CA applicant was perceived as less competent, and 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 good relationships with co-workers.

The pattern of evidence generated from this group of studies provides clear support for the proposition that people who experience a high level of CA will be perceived less positively than people who experience lower levels of CA.

Impact of CA on Individual Lives

Since the two propositions concerning communication avoidance and other people's perceptions of people with high CA have received such strong support, the proposition that these two phenomena lead to a negative impact on the life of the person with high CA may seem almost self-evident. Even so, several studies have been designed to test this proposition directly.

Strong support for this proposition has been provided by the studies which have examined effects on employment. As noted in a previous section, Daly and McCroskey (1975) found that people with high CA would rather accept a position with lower pay and lower status than to take one with higher communication requirements; and Scott, McCroskey, and Sheahan (in press) found that this professed desire was actually present in the employment patterns of a large sample of government employees. Additionally, in the job applicant screening studies it was found that people with high CA were less likely to be offered an interview (Daly & Leth, 1976) and, even if interviewed, would be less likely to be offered a job (Daly & Leth, 1976; Richmond, 1977).

Even with the apparent bias working against people with high CA, most do obtain employment. But from the evidence that is available, they do not always find work that is pleasing to them. In a study of a large sample of federal employees, Falcione, McCroskey, and Daly (1977) found that high CA was negatively associated with job satisfaction, particularly as it related to satisfaction with the person's supervisor and the actual work the person is required to perform. In the same study it was found that for a large sample of teachers in public schools a similar pattern was evidenced in terms of satisfaction with the teacher's supervisor.

On the basis of the results of the studies concerning potential employer's negative perceptions of people with high CA and the finding that such people are less satisfied with their job, Scott, McCroskey, and Sheahan (in press) hypothesized that in an intact group of government employees (local, state, and federal) people with low CA would have more years of service to the organization than people with high CA. After controlling for

age of the employees, it was found that people with low CA had served over 50 percent longer with the organization than employees with high CA (an average of 11.3 years versus 7.5 years). Whether people with high CA that should have been present in the population to equalize the averages were never hired, left because they were dissatisfied, left to avoid moving into a supervisory position, or were fired, remains to be determined in later research.

Within the academic environment, the negative impact of high CA has also been established (cf. McCroskey, 1976; McCroskey, 1977; McCroskey & Andersen, 1976). Students with high CA, as compared to those with low CA, have been found to have lower overall college grade-point averages (McCroskey & Andersen, 1976), to evidence lower achievement on standardized tests administered at the completion of high school (Bashore, 1971; McCroskey & Andersen, 1976), to receive lower marks in small classes in junior high school (Hurt, Preiss, & Davis, 1976) and college (Scott & Wheelless, 1976), and to develop negative attitudes toward school in both junior high school (Hurt, Preiss, & Davis, 1976) and college (McCroskey & Sheahan, 1977). All of these effects have been found to occur in spite of the fact that no meaningful relationship has been found between CA and intelligence (Bashore, 1971; Davis, 1977; McCroskey, Daly, & Sorensen, 1976) or between CA and success in large lecture classes at the college level (McCroskey & Andersen, 1976).

Only one study has been reported concerning the impact of CA in the political life of an individual. In that study, Sheahan (1976) found that people with high CA were less likely to register and vote than people with lower CA. Within the social realm, McCroskey & Sheahan (in press) found that although there was no difference between students with high and low CA in terms of the number of dates they desired over a 14-day period, and students with high CA were more than twice as likely to be engaged in exclusive (steady) dating, the students with low CA reported having almost twice as many dates during the preceeding 14-day period as the students with high CA.

While many more potential effects of CA on everyday lives of people remain to be studied, the results of the studies that have been reported point to

clear support for the proposition that high CA results in a negative impact on an individual's economic, academic, political, and social life.

METHODS OF HELPING PEOPLE OVERCOME CA

Since it is clear that high CA can result in many negative consequences for the person who experiences it, communication scholars as well as psychologists have become interested in determining methods for helping people to reduce their level of CA. Until the last decade only one method was employed, and it is still the most widely employed. This is most unfortunate, because the method is demonstrably not only ineffective but seriously harmful to the individual with high CA. The "method" to which we refer is requiring the individual to speak in a public setting. The most common example of the application of this "method" is the required public speaking class, but its applications also include "show and tell" in the elementary school, oral book reports, recitation of current events, required oral reading, graduate student seminar reports, church recitations, as well as a host of similar activities foisted on young people in the name of education.

While required public performances and training in public speaking have great value for people with moderate or low CA, for people with high CA such experiences are worthless at best, harmful in most instances, and deeply traumatic in many. After teaching required public speaking courses for a period of nine years (prior to the first reports of research relating to trait CA), this writer began to question the validity of this approach for helping students gain confidence in a public setting. While significant improvements had been observed in several hundred students, many others were apparently no better at the end of the course than at the beginning. During this period, also, he had experienced several students fainting while giving a speech, dozens of students who "disappeared" when their 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 upon to speak, and

even one attempted suicide allegedly brought on by fear of a speech due the next morning.

When a measure of trait CA became available (PRCA), it was decided to examine the impact of a public speaking course on CA empirically. The PRCA was administered to over 600 students enrolled in the class. Although over half of the students who were identified as having high CA dropped the course before the end of term, the remaining students with high CA showed a significant *increase* in CA as measured by the PRCA. When considering all of the students who completed the course, however, the average CA level was found to drop significantly. Thus, while the large majority of the students were helped by the class, those in most need of help were actually hurt. Research reported subsequent to that time indicates that these results were not specific only to that university, that course, or that particular group of teachers and students.

While some research has been reported that indicates that a course in public speaking does not reduce students' CA (Brooks & Platz, 1968; Taylor & Hamilton, 1974), most studies indicate that the impact, when considering all students enrolled, is a reduction in CA (cf. Giffin & Friedrich, 1968). Interestingly, this reduction cannot be attributed to the required speaking activities in the class, for Dymacek (1971) found that a class in communication theory was at least as effective in reducing CA as classes which required from one to seven speeches. Phillips and Metzger (1973) have observed that public speaking training may result in higher CA for those students with high entering levels of CA. Their observation is strongly supported by the research reported by Brooks and Platz (1968). They found that while 75 percent of the students in the classes they studied reduced their CA as a result, the other 25 percent reported increased CA.

Barnes (1976) provides an explanation for the Brooks and Platz findings as well as similar observations by others:

For the least confident students . . . anticipated speaking experiences have a traumatizing effect, resulting in weak performances followed by negative evaluations and criticisms. For 20-30 percent of the students, a course in public speaking does not seem to fulfill objectives of increased competency and confidence.

The immediate neurotic response to an aversive condition is avoidance. The student avoids enrolling in a speech course or fails to attend on days of assigned speeches. Avoidance behavior should not be permitted . . . because then the neurotic response becomes excessively dominant. However, . . . individuals should not be placed in a situation that will reinforce the anxiety state, i.e., a public speaking class in which evaluations and criticisms are given by instructor and peers. (p. 4)

While the public speaking class as a method for helping people with high CA can be discounted, this should not be taken to indicate that all communication instruction has negative effects. An interpersonal communication course, for example, has been found to produce markedly positive effects in reducing CA (Barnes, 1976).

Several more formal treatment methods have been tested for their usefulness in helping overcome CA. The most extensively studied is the behavior modification method known as systematic desensitization (cf. McCroskey, 1972). This method has been found to be highly effective for most people with high CA, but not all, and is relatively easy to administer and inexpensive.

The positive impact of systematic desensitization of CA has been demonstrated not only on subjects' self-reports of CA (McCroskey, 1972) but also on their actual communication behavior in small group (Wells, 1970) and public speaking (Goss, Thompson, & Olds, 1977) settings. While this method may be safely employed by lay personnel, it is highly advisable that at the outset of a program designed to provide such treatment at least one person involved have a background in counseling or clinical psychology, have been trained by such a person, or have worked in a similar program previously (Barrick, 1971).

A variety of additional methods have been suggested in the literature in recent years, but most have yet to receive sufficient empirical validation to justify recommending use outside a research environment. These include hypnosis (Barker, Cegala, Kibler, & Wahlers, 1972), relaxation induced by biofeedback (Fenton, Hopf, & Beck, 1975), group counseling (Griffin & Bradley, 1969), reality therapy (Phillips & Metzger, 1973), and reduction of state CA through false heart-rate feedback (Motely,

1974). Two very promising methods have appeared recently. A method called conditioned relaxation was found to be as successful as systematic desensitization by Heald (1976). Studies by Fremouw (1975), Fremouw and Zitter (in press), and Schwalb (1976) have pointed to the effectiveness of skills training directed toward specific communication behaviors (public speaking skills for the Fremouw research; mediating family crises for Schwalb) in generating a reduction in trait CA.

Although at this point only systematic desensitization has been clearly demonstrated by numerous researchers to be an effective method of reducing CA for people with high levels of CA, it is reasonable to expect that, from among the variety of methods described above that are in the trial stage, there will emerge several effective methods in the near future.

THE OTHER SIDE OF CA

It has consistently been the position taken in this paper that high CA is a pathology that visits disagreeable consequences on people unfortunate enough to be so afflicted. While the research surveyed certainly is supportive of that general position, this paper should not be concluded without looking at CA from the view of the person with high CA who does not share this view.

To begin with, we should not assume that every person with high CA would prefer to change places with someone with a lower level. Most adults with high CA are adjusted to their lives. To dramatically change their level of CA could cause a severe disruption. Their CA level probably has affected their choice of occupation, their choice of housing, their choice of friends, and possibly even their choice of mate. To suggest that all people with high CA are unhappy would be to stretch the data from the available research far beyond what is justified.

Similarly, one should take caution before assuming that the life of the low CA is necessarily the ideal state. Highly verbal people frequently find themselves in difficulties as a result of their communication that other people are most unlikely ever to experience. Additionally, while such people aggressively seek advancement and generally are suc-

cessful, such success may breed ulcers and unhappiness as well as increased status and economic reward.

Too much should not be made of this caveat, but it is important that it be made. Thus far, the research on CA has focused on potential negative consequences of high levels of CA, and many have been found. Future research may focus on potential negative consequences of low levels of CA, and we should not be surprised if many of these are found also.

PREVENTION OF HIGH CA

While there are available methods to help reduce extremely high levels of CA, prevention is obviously better than cure. On the basis of the available data several steps may be recommended that should reduce the chance of a child developing high CA. These include the following:

1. Extra effort should be exerted to provide children with reinforcement for their communication during their formative years, particularly in large families.
2. Children with slow language development or deficient speech skills should receive help as early as possible so that they do not lose positive reinforcement as a result of deficient skills.
3. Teachers should be trained to recognize the presence of CA in a child and provide extra reinforcement for the child's communication, particularly in the early school years.
4. Classroom teaching procedures should be modified so that children are not required to perform orally at a level beyond their skill development, such as eliminating required oral reading of material in the first and second grades that includes sounds that the child has not yet mastered.

Finally, when a child has been found to have high CA, treatment to overcome the problem should be made available as early as possible so that the negative effects of high CA on the child's learning may be held to a minimum.

FUTURE RESEARCH ON CA

While we now know a great deal about the correlates and effects of CA, there is still much we do not know, particularly about the effects of unusually low CA. Thus, additional research concerning correlates and effects is still needed. However, a major thrust in the future probably should be in the areas of causes of CA and development of treatments, both clinical treatments and treatments that can be used by parents and teachers. We now know that unacceptably high levels of CA are experienced by about 20 percent of the children in our schools and the adults in our society. It is vital that we learn more about why this is true and what we can do to eliminate what is clearly the most pervasive communication problem in our contemporary society.

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