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Measuring Communication Apprehension

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A scale with face validity for measuring oral communication apprehension in the organizational setting was generated and found to have adequate internal reliability, concurrent validity with the PRCA, and predictive validity in the organizational environment.

For an organization to function at all, much less to function efficiently, the members of that organization must communicate frequently with each other and with people outside the organization. While substantial written communication is necessary in the typical organization, the preponderant amount of communication within most organizations is oral. Many organizations recognize the central role communication plays in organizational effectiveness and millions of dollars are spent each year to enhance the communication skills of employees, particularly those in middle and upper management levels.

Unfortunately, for many employees in the typical organization, expenditures for communication skills have little likelihood of producing more effective communication. The communication problem for these individuals is not one of deficient skills, but one of orientation toward communication. This orientation problem has been referred to as "communication apprehension."

People who experience a high level of communication apprehension are those whose anxiety about or fear of communicating with others outweighs projections of gain from such an activity (10, 16), and are thus more likely to avoid it whenever possible. Although it has been found that apprehension exists about both oral and written communication (3, 10), most previous research has

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focused on the effects of oral communication apprehension. This research has indicated, for example, that high oral communication apprehension is predictive of seating position in a conference (11), housing choice (11), amount and relevance of interaction (19, 20), amount of self-disclosure (7), and amount of trust in others' communication (6). Although no relationship between communication apprehension and intelligence has been found, the highly apprehensive tends to achieve less in school (13, 18). In addition, others tend to perceive the highly apprehensive person in a negative light (14, 15, 17).

Although only a few studies of oral communication apprehension in the organizational environment have as yet been reported, the results of those studies point to a potentially major impact on the organization.

In the first study in this area, Daly and McCroskey (2) found that communication apprehension was highly predictive of occupational choice. Highly apprehensive individuals indicated a clear preference for occupations with low communication requirements while low apprehensives indicated opposite preferences.

Daly and Leth (1) found that highly apprehensive job applicants, even though they were as qualified as other applicants, were negatively evaluated, were less likely to be granted a job interview, were seen as needing more additional training than others, and were seen as less likely to get along well with co-workers.

Another study by Falcione, Daly, and McCroskey (4) examined the relationship between both oral and written communication apprehension and job satisfaction, and found that highly communication apprehensive individuals reported significantly lower job satisfaction than their colleagues.

The purpose of the present investigation was to determine whether or not communication apprehension related to oral communication in employment was connected to general communication apprehension.

We also sought to develop a self-report measure of oral communication that specifically reflected reactions to oral communication in the organizational setting, and to obtain preliminary indicators of the reliability and validity of that instrument.

The instrument that has received the most extensive use in previous research on oral communication apprehension is the Personal Report of Communication Apprehension (PRCA: 10). A critical analysis of that research permits the conclusion that the PRCA is both a reliable and a valid index of oral communication apprehension (12). Two other measures have been reported which have been found to correlate highly with the PRCA—the Verbal Reticence Scale (9) and the Unwillingness to Communicate Scale (8). However, all three instruments were developed primarily for college students and only the PRCA has been employed in organizational settings. While each of the scales on the PRCA purports to tap an individual's general orientation toward communication in a variety of contexts, the PRCA does not include items specifically directed toward oral communication in the organizational environment.

The original test instrument we developed employed a total of 50 items. To measure general oral communication apprehension we selected 30 items from existing scales, 11 from the PRCA (10), 11 from the Verbal Reticence Scale (9), and 8 from the Unwillingness to Communicate Scale (8). We wrote an additional twenty items directed specifically toward apprehension in communication contexts applicable to the typical organization, such as representing the organization to other people, fielding questions at a meeting, talking to subordinates, talking to superiors, and interviewing people. It was believed that these items represented a cross-section of the types of communication required of employees in the typical organization. The order of the items was determined randomly and the responses were to be given on a Likert-type, five-point scale ranging from strongly agree to strongly disagree. The instructions are noted in Table 1.

The respondents were 243 individuals employed either by the federal government or the Commonwealth of Pennsylvania in the Pittsburgh area. The sample was heterogeneous with respect to position in the organizational hierarchy and degree of responsibility, from agency heads to custodial employees. The respondents ranged in age from 17 to 63, with a mean age of 37.95. Approximately half the respondents were male and half female. The number of years they had been employed ranged from less than a year to 46 years, with a mean of 14.57. The average number of years they had been in their present organization was 7.97, with a range from less than a year to 34 years.

Table 1: Personal report of communication apprehension-organization form

DIRECTIONS: This instrument is composed of several statements concerning feelings about communicating with other people. Please indicate the degree to which each statement applies to you by marking whether you (1) Strongly Agree, (2) Agree, (3) are Undecided, (4) Disagree, or (5) Strongly Disagree with each statement. There are no right or wrong answers. Work quickly; just record your first impression.

	Item- Total correlation	Scale source ^a
_____ 1. People can usually count on me to keep a conversation going.	.56	L
_____ 2. Conversing with people who hold positions of authority is something I really enjoy.	.56	N
_____ 3.* I feel self-conscious when I am called upon to answer a question or give an opinion.	.65	P
_____ 4. I am basically an outgoing person.	.57	L
_____ 5.* When I have to represent my organization to another group I feel very tense and nervous.	.60	N
_____ 6.* I am afraid to express myself in a group.	.71	H
_____ 7.* When I'm with other people, I often have difficulty thinking of the right things to talk about.	.64	L
_____ 8. I enjoy fielding questions at a meeting.	.48	N
_____ 9.* I'm afraid to speak up in conversations.	.72	H
_____ 10. I look forward to an opportunity to speak in public.	.62	P
_____ 11. In most situations, I generally know what to say to people.	.54	L
_____ 12. I enjoy talking to my subordinates.	.48	N
_____ 13.* I talk less because I'm shy.	.69	H
_____ 14.* I am fearful and tense all the while I am speaking before a group of people.	.64	P
_____ 15.* Talking to my supervisor makes me nervous.	.42	N
_____ 16. I like to get involved in group discussions.	.55	H
_____ 17.* Conversing with people who hold positions of authority causes me to be fearful and tense.	.61	P
_____ 18. I enjoy representing my organization to other groups.	.53	N
_____ 19. I look forward to interviewing people applying for a job as my subordinate.	.47	N
_____ 20.* I consider myself to be the silent type.	.59	L

^a Communication apprehension is indicated (1) by *agreement* with items with asterisks and (2) by *disagreement* with other items. To score this scale complete this formula: Score = 60 - (total of items with asterisks) + (total of items without asterisks).

The data were submitted to factor analysis to determine whether the items related to organizational settings formed a dimension of response independent of the items measuring general oral communication apprehension. An examination of the obtained unrotated factor structure suggested the probability that only one dimension of response was present. Thirty-nine of the 50 items had their highest loading on the first factor. Factors 2 and 4 each had three items with their highest loading, factor 3 had two items, and factors 5, 6, and 11 each had one item. No item had a primary loading of .60 or higher on any but the first factor.

Although this examination suggested the presence of a unidimensional structure, the results of the factor analysis were submitted to orthogonal rotation and two factors were requested. This indicated the presence of two clear factors. However, these two factors were the result of item wording rather than item content. The first factor was composed of all the items that were worded in such a way that *agreement* would indicate communication apprehension, while the second factor included all of the items worded so that *disagreement* would indicate communication apprehension. This was precisely the kind of result previously observed by McCroskey (10) while developing the PRCA and in a factor analysis of similar scales reported by Friedrich (5). It was concluded, therefore, that the responses to the 50 items indicated a unified dimension of oral communication apprehension and that apprehension concerning communication in an organizational setting was not distinct from general oral communication apprehension.

Since only a single dimension of response was observed, it could be concluded that there was no need to form a new measure of oral communication apprehension that specifically focused on the organizational setting. However, we decided that if we could form a new measure from our item pool it might be useful for research in organizations because of its increased face validity. Consequently, we computed total scores for the respondents across the 50 items and obtained correlations for each item with the total score. On the basis of these correlations we formed a 20-item scale. This scale was composed of the 10 items with the highest item-total correlations where agreement indicated communication apprehension and the 10 items with the highest item-total correlation where disagreement indicated communication apprehension. Since only three of our items specifically related to the organizational setting were included in that scale, four additional items which had only slightly lower correlations were substituted. The final scale is reported in Table 1. Included in this scale are four items from the PRCA, five from the Lustig (9) scale, four from the Heston and Paterline (8) scale, and seven new items specifically directed toward the organizational setting.

*We then analyzed our data to determine
the reliability and validity of the measure we had developed.*

We estimated the internal reliability of both the total 50 items and the 20-item subscale by means of the split-half (odd-even) procedure. The estimated reliability for all 50 items was .95. The estimate for the 20-item subscale was .91. This indicated that the elimination of 30 items had little effect on the reliability of the ultimate scale and was considered satisfactory.

Since we included eleven items from the PRCA (a 20-item scale) among our pool of 50 items, it was possible to compute both a score on our new scale and a score for a majority of the PRCA items to ascertain concurrent validity. The obtained correlation between the two scores was .90. While this relationship may be somewhat inflated by the presence of four PRCA items in both scores, it is clear that scores on the two scales are highly related. This suggests, of course,

concurrent validity for the two scales. Consequently, results generated from either scale could be considered interchangeable in the development of theory related to either general oral communication apprehension or communication apprehension in the organizational setting.

Our data also permitted several tests of the predictive validity of the new scale. The first of these related to the length of time a person has been employed in an organization. Because we believed high communication apprehensives are less likely to be perceived positively in their employment than low communication apprehensives and hence less likely to be retained or promoted, we hypothesized that high communication apprehensives would report less years of service in their present organization than low communication apprehensives. To test this we classified all respondents who scored beyond one standard deviation above the mean on the apprehension measure as high communication apprehensives and all those who scored beyond one standard deviation below the mean as low communication apprehensives. We subjected the data on length of employment to analysis of covariance. The classification variable was level of communication apprehension. The covariate we employed was age, since we knew that age and length of service were highly correlated ($r = .67$) but that apprehension and age had no significant correlation.

The results indicated a significant difference between high and low communication apprehensives ($F = 6.25, p < .01$). As expected, the low communication apprehensives reported more years of service in their present organization ($\bar{x} = 11.3$ years) than did the high communication apprehensives ($\bar{x} = 7.5$ years). As these means indicated, the low communication apprehensives had been in their present organization almost 50 percent longer than had the high communication apprehensives.

For additional validity checks, we asked four questions on respondents' attitudes toward and expectations for advancement and their desire for more or less face-to-face oral communication.

The first question focused on their desire for advancement in the organization. We hypothesized that high communication apprehensives would be less likely to desire advancement than others, since they would foresee that such advancement would increase the communication requirements imposed on them.

The second question focused on their perception of whether or not they would be likely to advance in the organization. Since the high communication apprehensives should be expected to have received more negative and less positive reinforcement as a result of their lack of communication, we hypothesized that high communication apprehensives would be less likely to see themselves advancing in the organization.

The third question was concerned with the amount of communication required of them. Previous research (2) has indicated that persons can make such estimates accurately, regardless of their own communication apprehension level.

Since high communication apprehensives seek to avoid communication, it was hypothesized that they would be more likely to be in positions with lower communication requirements. The final question on whether they desired more or less face-to-face communication in a job, provided data that permitted a test of the replicability of the Daly and McCroskey (2) finding that high communication apprehensives prefer jobs requiring less communication while low communication apprehensives prefer jobs requiring more communication. Presuming the validity of our scale and the results of the Daly and McCroskey (2) study, we hypothesized that a similar pattern would emerge from our data.

The respondents were classified as high and low apprehensives in the same manner noted above. Simple chi-squares and phi coefficients were computed for the responses to each of the test questions by level of communication apprehension (high or low). The results support all four hypotheses. The high communication apprehensives were found to have less desire for advancement ($\phi = .25$, $x^2 = 4.18$, $p < .05$), to be less likely to expect advancement ($\phi = .48$, $x^2 = 14.98$, $p < .001$), to be more likely to see themselves as being in positions with low communication requirements ($\phi = .49$, $x^2 = 16.18$, $p < .001$), and to prefer jobs with lower communication requirements ($\phi = .59$, $x^2 = 22.92$, $p < .001$) than the low communication apprehensives.

The strongly supportive results of these tests suggest substantial predictive validity for the new measure. Since the new measure was found to be so highly correlated with the PRCA, it should be considered as a form of the PRCA rather than as a unique instrument. The PRCA items employed in this investigation were taken from the PRCA-College Form. An appropriate label for the new instrument would be the PRCA-Organization Form.

Although we have not yet collected sufficient data from enough different organizations to generate an unbiased set of norms, the mean communication apprehension score in the present study was 50.05 with a standard deviation of 11.50. This is a lower score than is typically found among college students (the typical college mean is near 60.0, the hypothetical mid-point of the scale range) but very similar to that found among civil service employees (4) on the PRCA-College Form. This, of course, suggests that high communication apprehensives may not survive the communication demands of the typical organization. Thus, a score on our instrument above 62 should be cause for concern and a score as high as 72 probably indicates a severe problem.

While it is known that communication apprehension presents a severe problem to many people, the impact of communication apprehension in contemporary organizations is only beginning to be researched. We believe the PRCA-Organization instrument reported here will be a valuable aid to the researcher or practitioner concerned with the impact of communication apprehension in the organizational environment.

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