

The Effects of Communication Apprehension on the Perception of Peers

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SOME of the more important outcomes of human communication are the perceptions of each other that are stimulated in the participants as a result of their interaction. A person's communication behavior has a major impact on the way that person is perceived by the other communicators involved.¹ The amount of participation in which a person engages, a very basic element of communication behavior, has been found to have a major impact on perceived credibility, homophily, and attractiveness,² as well as perceived status³ and leadership.⁴

The research concerning reticence⁵ and communication apprehension⁶ indicates that persons who suffer from abnormal levels of apprehension about communication characteristically attempt to withdraw from communicative encounters, either by avoiding the encounter completely or by reducing participation if the encounter cannot be avoided. The present research was designed to investigate the effect of communication apprehension on interpersonal perceptions of communicators. On the basis of the previous research

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¹ James C. McCroskey, Paul R. Hamilton, and Allen N. Weiner, "The Effect of Interaction Behavior on Source Credibility, Homophily, and Interpersonal Attraction," *Human Communication Research*, 1 (1974), 42-52.

² John A. Daly, James C. McCroskey, and Virginia P. Richmond, "The Relationships Between Vocal Activity and Perception of Communicators in Small Group Interaction," paper presented at the Speech Communication Association Convention, Chicago, December 1974.

³ For a summary of this research, see: Daly, McCroskey, and Richard, p. 2.

⁴ For a summary of this research, see: Daly, McCroskey, and Richmond, pp. 2-3.

⁵ Gerald M. Phillips, "Reticence: Pathology of the Normal Speaker," *Speech Monographs*, 35 (1968), 39-49.

⁶ For an early exposition of the nature of communication apprehension, see: James C. McCroskey, "Measures of Communication-Bound Anxiety," *Speech Monographs*, 37 (1970), 269-77. For a summary of subsequent research, see: James C. McCroskey and Thomas Leppard, "The Effects of Communication Apprehension on Nonverbal Behavior," paper presented at the Eastern Communication Association Convention, New York, April 1975.

concerning vocal activity and interpersonal perception,⁷ and the research indicating that communication apprehensives engage in less vocal activity,⁸ it was hypothesized that people exhibiting typical behaviors of high communication apprehensives would be perceived less positively than people exhibiting behaviors typical of low communication apprehensives. In addition, based on the preliminary research reported by Quiggins,⁹ it was hypothesized that the negative perceptions resulting from communication apprehensive behaviors would be reported by all types of subjects, whether or not they were high, moderate, or low apprehensives themselves.

METHOD

General Procedure

The hypotheses were tested experimentally. Subjects were 104 female and 108 male college students in basic speech courses at a midwestern university. Each subject completed the Personal Report of Communication Apprehension (PRCA) as an index of their communication apprehension.¹⁰ In addition, the subject read a description of another person, allegedly a student at the same university, and completed a series of scales to measure their perceptions of that person. The experiment was administered as a class project and the subjects were told that it was related to a future unit in the course. After the data were collected, the subjects were debriefed. Since there were several different descriptions employed, the subjects were randomly assigned to experimental conditions.

Experimental Manipulation and Control

The subjects' perception of the target person as either a high or a low communication apprehensive was manipulated by including, within the overall description of the person, descriptions of behaviors determined by previous research to be associated clearly with communication apprehension. The descriptions were pretested and found to induce perceptions of high and low apprehension as intended ($p < .0001$). The portions of the descriptions related to communication apprehension were as follows:

(Low Apprehensive) Dale is a very verbal person who participates a lot in class and has a good academic record. Dale would rather work with a group rather than alone; and, in fact, when working with a group is a very active participant. Dale has not yet decided on a major, but hopes to go into a profession that requires a lot of direct contact

⁷ Daly, McCroskey, and Richmond.

⁸ Judith Wells and William B. Lashbrook, "A Study of the Effects of Systematic Desensitization of the Communicative Anxiety of Individuals in Small Groups," paper presented at the Speech Communication Association Convention, New Orleans, December 1970. See also: Phillips, and McCroskey and Leppard.

⁹ James G. Quiggins, "The Effects of High and Low Communication Apprehension on Small Group Member Credibility, Interpersonal Attraction, and Interaction," paper presented to the Speech Communication Association Convention, Chicago, December 1972.

¹⁰ McCroskey.

with people. Dale currently lives in a dorm room at the end of the hall right next to the entrance and likes the room, but plans to move off campus next semester if possible.

(High Apprehensive) Dale is a very quiet person who seldom participates in class discussion, but has a good academic record. Dale indicates a preference for working alone, rather than with a group; and, in fact, when working in a group seldom says much. Dale has not yet decided on a major, but hopes to go into a profession that requires little direct contact with people. Dale currently lives in a dorm room at the end of a hall away from the entrance and likes the room, but plans to move off campus next semester if possible.

As a check on the manipulation in this study, subjects were asked to indicate on a ten-point scale how "anxious about communication" they perceived the target person to be. The high apprehension condition ($\bar{X}=6.8$) received significantly ($F=12.67, p<.0005$) higher ratings than the low apprehension condition ($\bar{X}=2.7$).

Many elements in a communication encounter potentially may influence the participants' perceptions of one another. Several of these were introduced into the descriptions of the target person in order to lengthen the descriptions so that the primary manipulation would be less obvious. Specifically, the variables added to the overall description included age of target, where target was born and now resides, the occupation of the target's father, and several allegedly expressed attitudes of the target.

The age of the target was specified as 19. Approximately 44 per cent of the subjects were also 19, 31 per cent were younger (17-18), and 25 per cent older (20-26). Since age of target was not varied, it could not serve as a statistical control. However, age of target and age of subject combined permitted classification of subjects as "older," "younger," or "same age" as target. Preliminary analyses indicated this classification did not account for significant variance on the dependent variables; thus it was not included in subsequent analyses.

The target's region and residence were manipulated by identifying the person as being from the same state in which the study was conducted or as being from New York City. The father's occupation was identified as either a pharmacist or a bus driver.

To manipulate the perception of the target's attitudes, six attitude statements were employed. Subjects were told that the target person had selected "four strong views from a list of 40" in a survey at the beginning of the semester. Then these four were listed. Which four were attributed for a given subject was determined randomly. The six attitude statements used were: 1) Amnesty should be given to Vietnam War draft evaders. 2) The University of _____ should provide more parking facilities for undergraduates. 3) A college education is vital in order to attain financial

success. 4) Couples should live together at least several months before deciding to marry. 5) The football program at the University of _____ should be deemphasized. 6) There should be no amnesty for military deserters.

Measurement

As noted above, the subjects' level of communication apprehension was measured by means of the PRCA. Those subjects scoring one standard deviation above the mean were classified as high apprehensives, those scoring one standard deviation below the mean were classified as low apprehensives, and the remainder were classified as moderate apprehensives. The PRCA has been used extensively in previous research on communication apprehension. Internal reliability estimates are typically between .90 and .94. In the present study the estimated reliability (split-halves) was .92.

The perceptions of the target person that were selected for measurement in this study were source credibility, interpersonal attraction, homophily, probable academic success, and desirability as an opinion leader.

Source credibility on five dimensions (competence, character, sociability, composure, extroversion) was measured by semantic differential scales developed for this purpose.¹¹ Four scales were used for each dimension. Interpersonal attraction was measured on three dimensions (task, social, physical) by Likert-type scales recommended by McCroskey and McCain.¹² Five scales were used for each dimension. Perceived homophily was measured on two dimensions, attitude and background. The scales employed were selected from those recommended by McCroskey, Richmond, and Daly¹³ and converted to Likert form by Andersen.¹⁴ Six scales were included for each dimension. Although all of these scales have been used in several studies previously and found to have factor stability and high reliability, each group of scales were submitted to orthogonal factor analysis of the type reported by the researchers who developed the scales. In each case the number of expected factors were rotated and the results indicated that the expected structures

¹¹ James C. McCroskey, Thomas Jensen, and Cynthia Valencia, "Measurement of the Credibility of Peers and Spouses," paper presented to the International Communication Association Convention, Montreal, April 1973.

¹² James C. McCroskey and Thomas A. McCain, "The Measurement of Interpersonal Attraction," *Speech Monographs*, 41 (1974), 261-66.

¹³ James C. McCroskey, Virginia P. Richmond, and John A. Daly, "Toward the Measurement of Perceived Homophily in Interpersonal Communication," paper presented to the International Communication Association Convention, New Orleans, April 1974, and Virginia P. Richmond, James C. McCroskey, and John A. Daly, "The Generalizability of a Measure of Perceived Homophily in Interpersonal Communication," paper presented to the International Communication Association Convention, Chicago, April 1975.

¹⁴ Peter A. Andersen, "Scales for the Measurement of Homophily with Public Figures," paper presented to the International Communication Association Convention, Chicago, April 1975.

were present. All items had loadings above .60 on the intended factor and no secondary loading above .40.

Perception of probable academic success was measured by eight ten-point bipolar scales developed for this study. The subjects were asked to predict how well the target would do in seven academic areas and in overall achievement. The seven areas were math, humanities, art, lab sciences, public speaking, agriculture, and business.

Desirability of the target person as an opinion leader was measured by two ten-point bipolar scales ranging from "very unlikely" to "very likely." Subjects completed the scales in response to the following questions: "How likely would it be that you would turn to this kind of person for advice when you need to make a decision?" and "How likely would it be that you would be influenced by the opinions of this kind of person on controversial issues?" The estimated internal reliability for the sum of these two scales was .84.

Data Analyses

Because the number of dependent variables included in this study was large (19), it was believed important to determine at the outset whether there were any overall effects supporting or contradicting our hypotheses. Thus the data were submitted to a two-factor multivariate analysis of variance with two levels of target apprehension and three levels of subject apprehension serving as the independent variables and the 19 perception measures serving as the dependent variables. Since this analysis produced significant results but indicated that not all of the dependent variables were equally affected by the independent variables, a series of two-factor univariate analysis were also performed. The independent variables were the same as those for the multivariate analysis. Each of the 19 dependent variables was examined. The $p < .05$ criterion was set for significance for all tests.

RESULTS

Multivariate Analysis

The multivariate analysis of variance indicated the presence of two significant effects. They were apprehension behavior of the target person ($F = 14.50$, $p < .05$) and level of subject apprehension ($F = 6.26$, $p < .05$). The interaction effect was not significant ($F < 1$). Examination of the canonical means indicated that the low apprehensive target generally was perceived more positively than the high apprehensive target and that low apprehensives perceived both target persons more positively than did moderate or high apprehensives. The correlations among the dependent variables, however, were generally low or non-significant. Thus a major assumption underlying multivariate analysis of variance (correlated dependent variables) appeared

to be violated. Since in such circumstances univariate analyses are more powerful, no additional interpretation of the multivariate results was attempted.

Univariate Analyses

Source Credibility. The univariate analyses of the data from the five dimensions of source credibility produced one significant effect in each instance. The significant effect on each dimension was attributable to the level of apprehension behavior of the target person (sociability, $F=48.68$; composure, $F=26.19$; competence, $F=5.68$; extroversion, $F=309.58$; and character, $F=9.71$). On four of the dimensions (sociability, composure, competence, and extroversion), the low apprehensive was perceived more positively. However, on the character dimension the high apprehensive was perceived more positively. For the means and F-ratios on the various dependent measures, see Table 1.

TABLE 1
MEAN SCORES ON DEPENDENT VARIABLES
BY TARGET APPREHENSION LEVEL

Dependent Variable	High Apprehensive Target (N = 105)	Low Apprehensive Target (N = 107)	Difference (Low minus High)	F-ratio
<i>Source Credibility</i>				
Sociability	17.29	21.28	3.99	48.68*
Composure	14.88	18.00	3.12	26.19*
Competence	16.51	20.80	4.29	5.68*
Extroversion	10.84	21.37	10.53	309.58*
Character	20.50	18.73	-1.79	9.71*
<i>Interpersonal Attraction</i>				
Social	21.80	25.02	3.22	21.93*
Task	24.91	25.68	.77	<1
Physical	20.04	20.24	.20	<1
<i>Homophily</i>				
Background	20.71	21.02	.31	<1
Attitude	21.22	22.82	1.60	3.02
<i>Academic Success</i>				
Math	7.67	6.29	-1.38	32.89*
Humanities	4.40	6.11	1.71	25.83*
Art	4.83	4.71	-.12	<1
Lab Science	7.00	6.03	-.97	11.34*
Public Speaking	3.26	7.69	4.43	209.89*
Agriculture	5.79	4.65	-1.14	16.84*
Business	4.71	5.92	1.21	5.90*
Overall Achievement	7.09	7.12	.03	<1
<i>Opinion Leadership</i>				
	7.79	10.12	2.33	9.48*

* Significant at least at the $p < .05$ level.

Interpersonal Attraction. The univariate analyses of the data for the three dimensions of interpersonal attraction yielded significant effects only on the social attraction dimension. No effect achieved significance on the physical or task dimensions. On the social dimension both target apprehension ($F=21.93$) and subject apprehension ($F=5.14$) produced significant effects. The low apprehensive target was perceived as more socially attractive than the high apprehensive target (see Table 1). The low apprehensive subjects perceived the target persons to be more socially attractive ($\bar{X}=25.86$) than did the moderates ($\bar{X}=23.12$) or the highs ($\bar{X}=22.82$).

Homophily. The univariate analysis of the background homophily data yielded no significant result. However, the analysis of the attitude homophily data indicated a significant ($F=7.71$) interaction between target apprehension and subject apprehension. Low apprehensive subjects perceived more homophily with the low apprehensive target ($\bar{X}=27.00$) than with the high apprehensive target ($\bar{X}=19.53$). The moderate subjects also perceived more homophily with the low apprehensive target ($\bar{X}=23.04$) than with the high apprehensive target ($\bar{X}=19.72$). The pattern was reversed for the high apprehensive subjects. They perceived more homophily with the high apprehensive target ($\bar{X}=24.41$) than with the low ($\bar{X}=18.43$).

Academic Success. Analysis of the data from the eight measures of predicted academic success produced six significant effects attributable to apprehension of the target person. No effects for subject apprehension or the interaction achieved significance. Although no significant effect was observed for art ($F<1$) or overall achievement ($F<1$), the low apprehensive was predicted to be more successful in the humanities ($F=25.83$), public speaking ($F=209.89$), and business ($F=5.90$). The high apprehensive, however, was predicted to be more successful in math ($F=32.89$), lab science ($F=11.34$), and agriculture ($F=16.84$).

It is clear from these results that the subjects perceived that apprehension behavior is related to academic success, but their projection of the direction of the impact is heavily dependent on the nature of the academic area involved.

Opinion Leadership. The results of the analysis of the data on opinion leadership indicated a significant effect for apprehension behavior of the target person ($F=9.48$). Subjects indicated they were much more likely to turn to the low apprehensive for opinion leadership than they were to the high apprehensive.

DISCUSSION

Our primary hypothesis was supported in general. High communication apprehensive target persons were perceived less positively than targets exhibiting behaviors in sociability, composure, competence, extroversion, social attraction, desirability as an opinion leader, and projection of academic success

in the humanities, public speaking, and business. However, an opposite pattern was observed for perceived character and projection of academic success in math, the lab sciences, and agriculture.

The contrary results on the three academic achievement variables are not surprising, since these three fields are not usually thought to require as much communication as other fields (this perception, we are told by our colleagues in these fields, is wrong, however). Thus, the observed results may actually be interpreted as negative perceptions in line with our hypothesis. The result on the character dimension, however, forces us to withhold full support for the primary hypothesis. While many other perceptions are made less positive by communication apprehension behaviors, the same behaviors resulted in more positive character evaluations. It may well be that people trust quiet people more than more verbal ones. The common stereotype of the used-car salesman comes to mind in this regard.

In any event, it appears that if a person wishes to be evaluated more positively on most dimensions of perception, it would be wise to avoid engaging in behaviors typical of high communication apprehensives. Generally, high apprehensives are perceived as less credible, less attractive, and, most significantly, as less desirable potential opinion leaders. From these results, we can conclude that it is likely in most circumstances that high communication apprehensives are much less influential in their environment than are less apprehensive individuals.

Our second hypothesis indicated that any negative perceptions resulting from communication apprehension behaviors would be similar for subjects at all levels of apprehension. In the form tested, this was essentially a null hypothesis. It would be rejected by obtaining a significant target apprehension by subject apprehension effect. No such effect was observed on any of the variables, with the exception of the attitude homophily variable. This effect probably should have been anticipated since people who are high apprehensives *should* perceive other high apprehensives as more like themselves. The fact that this perception did obtain, but was not generalized to any other dependent variable, indicates that the second hypothesis probably should not be rejected. Even though high apprehensives perceive other high apprehensives to be more homophilous than low apprehensives, they do not consider them more credible, attractive, or desirable as a potential opinion leader. On the other hand, low and moderate apprehensives see low apprehensives as more homophilous and also as more credible, attractive, and desirable as an opinion leader than high apprehensives. Simply put, the results indicate that no one likes a high apprehensive, even if they are one.