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Interpersonal Communication, Personnel Ratings, and  
Systemic Performance Characteristics in Organizations<sup>1</sup>

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Abstract

Previous research suggests that communication and performance in organizations are intertwined. This study examines the relationship of individual communication in formal organizations to both objective and perceptual assessments of performance. Results confirm the link between a number of facets of organizational communication and performance. Both the quantity and quality of information appear to be important correlates of individual performance across a variety of tasks and functions.

Communication has long been recognized as necessary for organizational viability. Individuals in organizations continually receive, process, and send information. All organizational members participate to some extent in these information exchanges. For this reason it is postulated that the information milieu in which an individual works will affect his job related attitudes and behaviors. Specifically, this study explores the relationships among a number of individual perceptions of communication and individual performance outcomes in formal organizations.

A number of reviews have called attention to the general paucity of theory and research focused on communication in organizations (e.g., 7, 14, 16, 19). Several authors note explicitly the lack of empirical research linking differentiated measures of communication to relevant organizational outcomes such as performance (15, 16).

Previous investigations provide some evidence which suggests that relationships may exist among facets of communication and performance. The laboratory studies of communication networks, for example, demonstrate the impact of differing communication structures on attitudes and performance (e.g., 1, 3, 18). In a field study, Indik, Georgopoulos, and Seashore (9) generally supported the hypothesis that openness of communication channels between superiors and their subordinates facilitates the exchange of task relevant information. Smith and Brown (17) report higher effectiveness to be associated with the flow of information to control centers while multiple direction information flows are associated

with higher member loyalty to their organizations. Bowers (2) reports significant associations between communication and managerial performance. Other research has linked various facets of information transfer to decision making (e.g., 6, 13). While all of these suggest a communication-performance relationship, the empirical evidence remains inconclusive in several respects.

First, there exists no research relating a variety of communication variables to individual performance ratings in field settings. Much of the empirical evidence is from laboratory studies using artificial tasks and performance measures (23). Similarly, the reported few field investigations each consider usually only one, and together only a few of the possible facets of communication which potentially affect performance.

Second, just as there exist a number of communication dimensions which can be measured, there also exist different ways in which performance can be operationalized. Campbell (4), for example, in a recent review of the research on organizational effectiveness, proposes a useful dichotomy for effectiveness measures. He suggests that on the one hand there is what might be termed a goal-centered view of performance which presumes a set of goals which are few enough in number and sufficiently well defined to be understood and measured. On the other hand there exists what might be called a natural systems view which assumes that the best assessment that can be made of effectiveness is of general systemic health, organizations

being too complex to have only a few, well defined goals. The former view implies the use of objective measures of efficiency and productivity while the latter suggest perceptual, climate-like measures of variables thought to reflect organizational health. Campbell points out that the two approaches converge when a goal-centered analyst attempts to explain why an organization performs in a particular manner and when a systems proponent speculates about how various system characteristics affect performance.

Thus, to adequately examine communication performance relationships at the individual level of analysis, one should use measures of a number of communication variables and both objective, goal-centered and perceptual, climate-like measures of performance. This study attempts to do this.

#### METHOD

Subjects. As a part of a larger research program, data were collected from 579 military enlisted and officer personnel (Response rate = 81%). Performance data in the form of supervisor's ratings were available for 326 of the enlisted respondents. A second sample, used to illustrate communication-climate relationships, included 148 members from five branches of a large bank (Response Rate = 85%).

Instruments. Respondents from both samples completed questionnaires assessing communication dimensions in their organizations (15) and perceptions of organizational climate (5). The communication instrument assesses perception of seventeen variables concerned with

organizational communication. The climate instrument was developed to tap respondent perceptions of a large number of dimensions of organizational climate. From this set six dimensions were selected which appeared to represent factors suggested by Campbell (4) as systemic aspects of organizational health and which are often measured by other researchers interested in organizational climate (e.g., 8). Figure 1 describes both the communication and systemic health dimensions.

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Insert Figure 1 about here

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Individual performance data were obtained in the form of supervisor's ratings for the military sample for the time frame in which the other questionnaires were completed. These included ratings of the respondent's performance, military behavior, leadership ability (where observed), appearance, and adaptability. A factor analysis of these data using a varimax rotation revealed only one underlying factor accounting for 93 percent of the common factor variance. Hence, ratings of the separate traits were aggregated and then related to facets of communication.

## RESULTS

Communication and Performance Ratings. Table 1 presents the product moment correlations for the communication indices and performance for the military sample. Overall performance is positively associated with a number of communication facets; perceptions of high accuracy of information received, high desire for interaction with others, frequent

summarization of information, high openness of communication (the passage of a proportionately large amount of information received), a desire for more information (feelings of underload), and frequent expansion of information (discussion of much detail). Previous findings with this questionnaire show that both the summarization of information and expansion of details are associated with free, open communication (11).

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Insert Table 1 about here

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High overall performance is negatively associated with a number of intuitively reasonable communication dimensions; numerous contacts with superiors, frequent and deliberate withholding of useful information, perceptions of frequent redundancy of information received, and perceptions of receiving too much information (overload). A supportable generalization is that high performance is associated with open and accurate communication while poor performance is related to less open, more closely monitored communication.

Communication and Systemic Aspects of Performance. Table 2 and 3 present the correlations among communication indices and the six systemic-climate dimensions for the military and bank samples respectively. Several communication indices were not included in the questionnaire at the time of the bank data collection and, therefore, are not reported in Table 3.

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Insert Tables 2 and 3 about here

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Several trends appear in the military (Table 2) results. Perceptions of high information accuracy, high desire for interaction, willingness to pass information in detail (expansion), and high satisfaction with

communication are all significantly associated with generally healthy organizational climate, as characterized by high achievement orientation, supportiveness, and an emphasis on training and development. Unfavorable climate is associated with a tendency to deliberately gate-keep useful information and perceptions of a lack of relevant information (underload). Another set of significant correlations, those concerned with transmission modality, is not of great magnitude but is interpretable. Face-to-face interaction is positively related to emphasis on training and development, and to morale, while increased telephone use is negatively associated with a training and development orientation and reward contingency.

Results for the bank sample (Table 3) show weaker but similar trends with some understandable differences. For example, perceptions of high information accuracy, and satisfaction with communication are again associated with a generally healthy organizational climate. Deliberate withholding of useful information is related to low satisfaction and low reward contingency. The lack of significant findings about desire for interaction may reflect differences between the normative, all-volunteer military sample in which people live and work together and the utilitarian bank organization, in which people may more easily substitute interactions with others outside the organization for co-worker interactions.

#### DISCUSSION

Note first, for the military sample relationships between communication facets and overall performance are generally consistent with the

relationships of communication and climate dimensions. In only one respect are the data anomalous. High performance is negatively associated with communication overload, while organizational health is negatively associated with communication underload. This perhaps reflects the different kinds of performance assessed by ratings and systemic-climate measures.

Fifteen communication-climate relationships cross-validate for the military and bank samples. Clearly there exists a general pattern showing that more open and accurate information exchange is associated with positive perceptions of organizational climate while deleterious aspects of communication, such as blocking useful information, are related to negative perceptions of organizational climate. Interestingly, this trend is evident not only in the perceptual climate responses, but also in performance evaluation-communication relationships.

Extensive interpretation of each significant correlation is possible but seems unwarranted for several reasons. First, there are differences in both the job functions and organizations of the respondents which should be reflected in differences in communication. Previous research verifies the suggestion that even seemingly homogeneous units may be differentiated in communication terms (11). Relevant subunit comparisons based on the data reported here cannot be made because of the obvious problems involved in comparing data from small sub-samples.

Further, certain units and job functions are more information dependent than are others. The communication behavior of persons in such

positions and the impact of their communication behavior on their performance deserves more focused research. For example, some research suggests that information is a crucial commodity for certain types of jobs (e.g., 10, 20) and under certain environmental conditions (e.g., 12, 21, 22). Hence, precise interpretation of communication-performance on relationships should be made only after accounting for these organizational and task factors.

Finally, while a number of correlations reported here are significant, the strengths of the relationships are not great. This undoubtedly reflects the caveats above and again suggests that the strength of an individual communication-performance link is dependent on the extent to which information and communication are necessary for the accomplishment of particular tasks, and the extent to which specific tasks are crucial to the organization in reaching its goals.

For these reasons a more general, and perhaps more important, interpretation of the reported data is offered. The data suggest first that there is a relationship between individual communication and performance. This may be a general phenomenon, important in a variety of contexts. Second, the *quantity* and *quality* of communication appear to be more germane to performance than do other communication dimensions. The importance of quantity is suggested by associations including the communication indices assessing underload, overload, propensity to pass information, and the expressed desire for interaction. The importance of quality is manifest in relationships involving accuracy, blockage and expansion of information. Future investigations might use these facets of

communication in conjunction with assessments of information dependency of tasks and organizations to understand more fully the importance of communication and its effect on performance. Since this study has explored only the most general individual communication-performance links; additional research might profitably examine not only the individual level but also group and organizational level communication-performance relationships.

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FIGURE 1

## Communication Indices (15) and Work Group Climate Factors (5)

Organizational Climate Factors

1. Achievement orientation - The desire on the part of the people in the work group to do a good job and contribute to the performance of the work group.
2. Supportiveness - The degree of which the supervisory and other group members generate a supportive and friendly atmosphere.
3. Training and development orientation - The degree to which the organization tries to support the performance of individuals through appropriate training and development experiences.
4. Problem solving ability - The extent to which the work group can anticipate and solve problems related to group functioning.
5. Satisfaction and morale - Reflects the general level of morale.
6. Reward and contingency - Reflects the degree to which the granting of additional rewards such as promotions and salary increases are based on performance and merit rather than other considerations such as seniority, favoritism, etc.

Communication Indices

1. Directionality - Upward - General indicator of the amount of contact the respondent has with his superior.
2. Directionality - Downward - General indicator of the amount of contact the respondent has with his subordinates (computed only for those respondents with subordinates).
3. Directionality - Lateral - General indicator of the amount of contact the respondent has with others at his job level.
4. Accuracy - Respondent's estimate of how accurate he perceives the information he receives to be.
5. Desire for interaction - General indicator of the degree to which the respondent desires to interact with others in the organization.

6. Summarization - Estimate of how often information is summarized by emphasizing the important and minimizing the unimportant before passing it on.
  7. Propensity to pass information - Estimate of how much of the information the respondent receives he actually passes on.
  8. Gatekeeping - Estimate of how often the respondent deliberately withholds from others information thought to be useful.
  9. Change information - Indicator of the extent to which a respondent changes the form or content of information before transmitting it.
  10. Underload - A general indicator of how often the respondent feels he is receiving less information than he needs to accomplish his job.
  11. Expansion - Estimate of how often information is expanded and discussed in detail.
  12. Modality - Written - Percentage of the time the respondent uses this modality to communicate at work.
  13. Modality - Face-to-face - Percentage of the time the respondent uses this modality to communicate at work.
  14. Modality - Telephone - Percentage of the time the respondent uses this modality to communicate at work.
  15. Redundancy - Estimate of how often the respondent receives the same information more than once.
  16. Overload - Estimate of how often the respondent receives more information than he can efficiently use.
  17. Satisfaction with communication - Indicator of how satisfied the respondent is with communication in general at work.
-

TABLE 1

Correlation of Communication Indices with Performance  
Ratings for Military Enlisted Personnel (N=326)

Communication Index	Performance Rating
1. Directionality - Upward	.13*
2. Directionality - Downward	.07
3. Directionality - Lateral	.00
4. Accuracy	.12*
5. Desire for interaction	.12*
6. Summarization	.19**
7. Propensity to pass information	.16**
8. Gatekeeping	-.15**
9. Change information	-.01
10. Underload	.17**
11. Expansion	.29**
12. Modality - Written	.02
13. Modality - Face-to-face	-.10
14. Modality - Telephone	-.07
15. Redundancy	-.16**
16. Overload	-.14**
17. Satisfaction with communication	-.02

Note: All indices scored so high score represents a high occurrence for that dimension. Decimal points omitted from product moment correlations.

\*p < .05

\*\*p < .01

TABLE 2

Correlation of Communication Indices with Climate Dimensions for the Military Sample (N=326)

Communication Index	Achievement Orientation	Group Supportiveness	Training and Development Orientation	Problem Solving Ability	Satisfaction and Morale	Reward Contingency
1. Directionality - Upward	05	08	03	09*	04	03
2. Directionality - Downward	06	07	05	06	09*	10*
3. Directionality - Lateral	04	02	-07	01	02	-09*
4. Accuracy	11**	11*	15**	07	17**	24**
5. Desire for interaction	12**	13**	17**	06	18**	17**
6. Summarization	05	08	16**	05	07	11**
7. Propensity to pass information	06	07	17**	01	10*	09*
8. Gatekeeping	-06	-11**	-17**	-07	-09*	-13**
9. Change information	09*	05	-11**	04	-02	-13**
10. Underload	-08	-13**	-23**	-12**	-16**	-11**
11. Expansion	19**	24**	17**	23**	23**	10*
12. Modality - Written	08	06	-05	10*	02	-01
13. Modality - Face-to-face	03	06	14**	01	12**	05
14. Modality - Telephone	01	02	-12**	03	-04	-10*
15. Redundancy	-04	-05	-05	-06	-08	-15**
16. Overload	00	01	-05	04	-06	-08
17. Satisfaction with communication	17**	25**	28**	19**	30**	24**

Note: All indices scored so high score represents a high occurrence for that dimension. Decimal points omitted from product moment correlations.

\*p < .05

\*\*p < .01

TABLE 3

Correlation of Communication Indices with Climate  
Dimensions for Bank Sample (N=148)

Communication Index	Achievement Orientation	Group Supportiveness	Training and Development Orientation	Problem Solving Ability	Satisfaction and Morale	Reward Contingency
1. Directionality - Upward	09	05	-04	03	04	-09
2. Directionality - Downward	17*	20*	15	17	20*	19*
3. Directionality - Lateral	15	02	-11	-19*	-10	-07
4. Accuracy	15	26**	24**	27**	25**	26**
5. Desire for interaction	-11	13	-11	-06	04	06
6. Summarization	-11	10	-01	07	03	03
7. Propensity to pass information	12	07	19*	03	05	11
8. Gatekeeping	-11	-16	-09	-15	-14*	-18*
9. Change information	-05	-06	-08	-09	-04	06
10. Modality - Written	04	-01	-01	01	-01	-01
11. Modality - Face-to-face	-04	-07	05	-14	-05	-06
12. Modality - Telephone	-07	07	-05	06	06	12
13. Overload	09	-02	-08	02	-07	-10
14. Satisfaction with communication	32**	60**	44**	36**	54**	46**

Note: All indices scored so high score represents a high occurrence for that dimension. Decimal points omitted from product moment correlations.

\*p < .05

\*\*p < .01