A Critical Review of Communication Satisfaction

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The purpose of this paper was to critically review over a dozen studies of communication satisfaction. A meta-analysis of these research projects was conducted and the following eight conclusions were made. First, the construct of communication satisfaction is indeed multi-dimensional. Second, the Communication Satisfaction Questionnaire(CSQ) has proved to be a useful tool for organizational diagnosis in a wide range of organizations. Third, while the studies indicate that for the most part employees are not dissatisfied with organizational communication, there are definite areas of greatest and least communication satisfaction. Fourth, demographic variables provided relatively poor explanations of the level of communication satisfaction. Fifth, there does appear to be some indication that employees in managerial roles are more satisfied with communication than those who are not; however, no clearly discernable difference can be detected between employees of profit and nonprofit organizations. Sixth, communication satisfaction does link to the end-product variables of job satisfaction and productivity. Seventh, the communication satisfaction construct is more effective in explaining job satisfaction than productivity. Eighth, across these studies there are no clear and strong patterns of relationships between specific CSQ factors and the end product variables. In light of these findings, new research directions are outlined.

During the last 20 years the construct of communication satisfaction has become an accepted part of the organizational communication literature. Over a dozen studies have made use of the construct. And yet, there has not been a truly comprehensive review of the literature on communication satisfaction. The purpose of this article is to fill that gap and suggest appropriate future research directions.

Historical Development

The first known reference to communication satisfaction was in a study by Dale Level(1959) of urban banks. He was concerned with how informed employees felt about changes, procedures, and other general information. In short, Level(1959) focused on how employee's perceived the total communication climate. Since then the concept has undergone considerable refinement.

Redding(1972) reviewed several studies on the construct and noted that "communication satisfaction" referred to a wide variety of components including :

1. Being notified of changes
2. Understanding job requirements
3. Access to important information
4. Accessibility of superiors
5. Explanation of policies

The troublesome state of affairs at that time was that many of the researchers treated "communication satisfaction" as a unitary or single dimension construct. Redding(1972) suggested that it might be multi-dimensional in nature. Such questions often spur on other researchers interests.

Indeed, subsequently two research projects looked at that very question. Using data from 22 communication audits of Finnish organizations, Osmo Wiio(1976) looked for major dimensions of communication satisfaction. Factor analytic techniques revealed four broad dimensions of communication: job

2

satisfaction, message content, improvements in communication and channel efficiency. The important point about Wiio's work was that it provided evidence that communication satisfaction was in fact a multi-dimensional concept.

The other research project focused on developing a specific instrument that would measure communication satisfaction and that would be useful as a "barometer of organizational functioning" in a wide variety of organizations (Downs & Hazen, 1976,p 72). In short, Downs and Hazen(1976) had both theoretical and pragmatic aims, in terms of refining a construct, and of developing a useful instrument for communication audits, respectively. Moreover, Downs and Hazen(1976) wanted to examine how communication satisfaction related to job satisfaction.

The effort put into the construction of the instrument has been noted by others(Hecht, 1978; Clampitt & Girard, 1986). The research was done in three phases. Initially, 88 items for the survey were selected from a wide range of resources including past communication audits and reviews of the literature. This survey was tested on 225 employees from a variety of organizations. At this point, two different analyses were performed: a) principal component factor analysis, and b) item validity analysis. The factor analysis isolated 10 factors, accounting for 61% of the variance. Item validity tests determined which survey items most effectively differentiated between the satisfied and dissatisfied employees. The net result was that 8 dimensions of communication satisfaction were hypothesized.

In phase two a revised instrument was developed that consisted of 5 items for each dimension based on the previous research. This questionnaire was administered to 510 employees in four organizations. Factor analysis was again conducted. Downs and Hazen(1976) report that "the items tend to cluster along the same eight factors, and there is a great stability in the way they cluster"(p.70-71). Moreover, the test-retest reliability coefficient for the

instrument was .94.

In the third phase, Downs(1977) looked at the communication satisfaction/job satisfaction relationship. He found that there were wide differences among four organizations. However, three factors were found to be highly correlated with job satisfaction: Personal Feedback, Supervisor Communication, and Communication Climate. But at that point the results were only regarded as exploratory.

The most useful aspect of this research project was the hypothesized eight factors of communication satisfaction and described Downs(1977) as follows:

Communication Climate reflects communication on both the organizational and personal level. On one hand, it includes item such as the extent to which communication in the organization motivates and stimulates workers to meet organizational goals and the extent to which it makes them identify with the organization. On the other, it includes estimates of whether or not people's attitudes toward communicating are healthy in this organization.

Supervisory Communication includes both upward and downward aspects of communicating with superiors. Three of the principal items include the extent to which a superior is open to ideas, the extent to which the supervisor listens and pays attention, and the extent to which guidance is offered in solving job-related problems.

Organizational Integration revolves around the degree to which individuals receive information about the immediate work environment. Items include the degree of satisfaction with information about departmental plans, the requirements of their job, and some personnel news.

Media Quality deals with the extent to which meetings are well organized,written directives are short and clear, and the degree to which the amount of communication is about right.

Co-worker Communication concerns the extent to which horizontal and informal communication is accurate and free flowing. This factor also includes satisfaction with the activeness of the grapevine.

Corporate Information deals with broadest kind of information about the organization as a whole. It includes items on notification about changes, information about the organizations' financial standing, and information about the over-all policies and goals of the organization.

Personal Feedback is concerned with the workers need to know how they are being judged and how their performance is being appraised.

Subordinate Communication focuses on upward and downward communication with subordinates. Only workers in a supervisory capacity respond to these items which include subordinate responsiveness to downward communication and the extent to which subordinates initiate upward communication.

A number of researchers immediately recognized the usefulness of the instrument and incorporated it into their investigations. These studies will be reviewed below.

Previous Studies

The studies that have used the Communication Satisfaction Instrument(CSQ) as a focal point can be conveniently grouped into two categories. Initially, those studies that used nonprofit organizations as a research base are reviewed. Then, a group of studies dealing with profit-oriented organizations are discussed.

Nonprofit Organizations

One of the first studies to use the communication satisfaction instrument involved 135 government employees from the Mining Enforcement and Safety Administration. Avery(1977), like many of the researchers reviewed here, basically used the instrument as a case study of a particular organization. He, for instance, investigated the differences between divisions on the eight communication satisfaction dimensions. Such information while

extremely useful to the organization, has less relevance for theory building.

Yet, Avery(1977) revealed a number of insights that are more broadly useful. In particular, he found that for each of the eight dimensions, employees responded in the positive range. However, employees in the top level of the hierarchy were more satisfied with these communication dimensions than were their counterparts at lower organizational levels. Moreover, Avery(1977) found significant correlations between each of the eight communication satisfaction categories and the level of job satisfaction. The Horizontal Communication (.53), Subordinate Communication(.51), and Communication Climate(.51) dimensions had the strongest of the relationships. He did not investigate the correlation between the factors and perceived productivity.

In the same vein, another case study investigated the communication satisfaction of 48 administrators at the University of Kansas. Gordon(1979) was particularly concerned with finding differences between five divisions of administrators and did indeed find statistically significant differences. These findings as well as Avery's(1977) highlight the usefulness of the instrument for organizational analysis and interventions. Gordon(1979) also found that the administrators were not dissatisfied with any of the communication satisfaction factors; however, the Communication Climate, Media Quality, and Personal Feedback dimensions were areas of least satisfaction and rated in the middle of the scale. Supervisory Communication was rated as most satisfying. No analysis was made of the relationship of the factors to either job satisfaction or perceived productivity.

Nicholson's(1980) study of 298 secondary teachers in an urban school district was the first in a series of studies that utilized the CSQ in public school districts. With the exception of the Corporate Perspective factor, the educators were generally satisfied with the other communication factors. Sex, age, and tenure status had no discernable impact of the degree of

communication satisfaction. Administrators were more satisfied with Supervisory Communication, Communication Climate, and Media Quality factors than those in nonadministrative positions. Correlational analysis also indicated that the more training educators had, the more satisfied they were with the Corporate Perspective, Personal Feedback, Organizational Integration, and Communication Climate factors. Another trend noted through regression analysis was that as the age of the administrators increased so did their level of communication satisfaction.

Nicholson(1980) did not investigate the relationship between the factors and perceived productivity, but she did find the expected significant correlations between all of the factors and job satisfaction. As with other studies, the Communication Climate(.36), Personal Feedback(.34), and Supervisor Communication(.33) factors most strongly correlated to job satisfaction.

In contrast to the Nicholson(1980) study of an urban school district, Jones(1981) studied secondary teachers in a rural school district of Tennessee. A larger percentage of the 142 respondents were satisfied with the communication factors than were dissatisfied. Specifically, the Subordinate Communication and Horizontal Communication dimensions were areas of greatest satisfaction, while the Personal Feedback, Communication Climate and Media Quality factors were areas of least satisfaction. "Regression analysis revealed that the strength of the relationship between communication satisfaction components and the demographic characteristics of the respondents was weak"(p. 61). The correlations between job satisfaction and the CSQ factors were all significant with the exception of Subordinate Communication factor. The Communication Climate (.35) and Personal Feedback(.34) components were the strongest correlations. Jones(1981) concluded "that communication satisfaction (as measured by the CSQ) had a

7

stronger relationship to job satisfaction for rural secondary educators than was the case for educators working in a large urban area(p. 68)."

Duke(1981) studied the perceptions of 309 secondary business education teachers in a Chicago school district. These educators were less satisfied with communication than their counterparts studied by Gordon(1979), Nicholson(1980) and Jones(1981). "Only 38% of the sample indicated overall satisfaction with communication(p.92)". Respondents were most satisfied with the Organizational Integration and Horizontal Communication factors and least satisfied with Personal Feedback and the Communication Climate. Duke(1981) did not find any differences based on age, marital status, ethnic origins, and teaching experience that related to scores on the CSQ factors. ANOVA techniques did suggest some differences based on sex, educational level, and employment status. However, the precise nature of those findings is unclear from the reported results. As with the other studies of secondary teachers, Duke(1981) reports statistically significant correlations between job satisfaction and the CSQ factors, with Communication Climate(.53) being the strongest.

Barbara Wippich (1983) and Marvin Wippich (1983) used the same data base of 150 secondary and elementary school teachers to investigate two slightly different questions. Statistical tests of the data revealed that the teachers in this sample were more satisfied with all of the CSQ dimensions than the conceptual middle point. In particular, respondents were most satisfied with Supervisor Communication, Organizational Integration, and Horizontal Communication and least satisfied with the Communication Climate and Personal Feedback. Using regression techniques Barbara Wippich(1983) reported that "two communication satisfaction components were found to be significant predictors of job satisfaction -- personal feedback and relation with supervisor."(p.118). Although it should be noted that a seven item measure

8

of job satisfaction(Miskel, 1974) was used in this study as opposed to a single-item scale used by the other researchers reviewed. Barbara Wippich(1983) also investigated if communication apprehension was an effective predictor of teacher satisfaction but found no significant relationship.

Marvin Wippich(1983) was concerned with whether the communication satisfaction construct and/or the communicator style construct, as conceived by Norton(1978), could be predictors of perceived organizational effectiveness. Mott's(1972) Index of Effectiveness, which is composed of eight questions, was used to measure the outcome variable of perceived organizational effectiveness. Marvin Wippich(1983) found through the use of regression techniques that the communication satisfaction factors were far better predictors of perceived organizational effectiveness than communicator style construct. In particular, the Media Quality component was deemed to explain the most variance. It is worth noting that in these two studies different communication satisfaction factors provided better explanations of job satisfaction and perceived effectiveness.

Profit-making Organizations

A different focus might be expected from those studies dealing with profit-making organizations. Indeed, there are a variety of differences. Perhaps the most obvious is that the research reviewed below is more concerned with the impact of communication on productivity.

One of the first studies to make use of the CSQ involved 1,160 Kansas nurses(Thiry, 1977). As with many of the studies reviewed above, respondents average scores in all eight dimensions of communication satisfaction were above the theoretical middle point on the scales. The Subordinate Communication and Supervisor Communication factors were areas of greatest satisfaction with the Personal Feedback and Communication Climate factors

9

being the least satisfying. Personnel in the "staff" category were consistently less satisfied than those in the administrative category with exception of the Supervisor Communication factor. Age did seem to have some impact with those in 65+ category being consistently most satisfied and those in the 21-30 age range being the least satisfied. However, level of education had no discernable impact on the communication satisfaction scores. Thiry(1977) was particularly interested in how the CSQ correlated with Porter's Need Fulfillment Instrument(1961) which is based on Maslow's hierarchy of needs. She did find strong correlations between both instruments and concluded that as communication satisfaction increases so does need fulfillment. Moreover, Thiry(1977) found significant correlations between all the Communication Satisfaction factors and job satisfaction; and, to lesser extent, perceived productivity. The factors most strongly correlated with job satisfaction - Personal Feedback(.49), Communication Climate(.49) and Supervisor Communication(.48) - exactly mirrored the initial findings of Downs(1977).

Nearly ten year later Pincus(1986) used a modified version of the CSQ to study 327 nurses in an urban mid-Atlantic teaching hospital. He added one dimension, Top Management Communication, to the CSQ to fill a perceived gap in the instrument. Unlike Thiry's(1977) study, these nurses did not express as much communication satisfaction. The Supervisory Communication and Horizontal Communication factors were rated most highly, with the Organizational Perspective and newly added category of Top Management Communication rated in the dissatisfied area. Using bi-variate cross tabulations with the demographic variables Pincus(1983) found no particular patterns. One interesting twist to the Pincus study was that he asked respondents to rate the importance of each of the communication satisfaction items. Yet, he found such ratings did not significantly alter the overall factor scores. Pincus(1986) did find that communication satisfaction had an impact on

10

both employee satisfaction and performance but that the communication/job satisfaction link was stronger. It should be noted that Pincus measured performance by supervisor ratings as opposed to self-estimates as was the case for the other studies. However, he did conclude that "certain facets of organizational communication that exhibit both information and relationship characteristics - Supervisory Communication, Communication Climate, and Personal Feedback - were found to be the major contributors to the communication-job satisfaction and communication-job performance relationships"(p.413). While the study reinforced the importance of the impact of supervisory communication on job satisfaction, it also suggested the emergence of another critical and separate relationship variable - top management communication.

Alum's(1982) case study of 274 workers in a Mexician organization if less methodologically sophisticated than Pincus's study, certainly comes to many of the same conclusions. Alum(1982) like Pincus(1977) found that the "communication satisfaction factors are related differentially to job satisfaction and to perceived productivity"(p.136). The Personal Feedback and Supervisor Communication factors most strongly related to job satisfaction. Although all the other dimensions, with the exception of Subordinate Communication, were significantly correlated to job satisfaction. Yet, only Subordinate Communication and the Communication Climate were related to perceived productivity. The mean scores for all the factors fell in the satisfied range. Alum(1982) did determine that contrary to other case studies the top management was least satisfied with communication. He speculates that this may be the result of the general economic chaos at that particular time.

Clampitt(1983) looked more closely at the productivity issue and interviewed 116 employees from a chair manufacturer and 65 employees from a savings & loan. Interview analyses concluded that each of the communication

11

dimensions, as defined by Downs and Hazen(1976), had an "above average" impact on employee productivity. Yet, the Personal Feedback dimension was perceived by employees of both companies as having the most significant impact, while the Horizontal Communication, Media Quality, and Corporate Information factors had the least impact. This conclusion was slightly modified by noting that managers tended to be more affected by the Corporate Information factor. Clampitt(1983) reported that interviewees in the Savings & Loan tended to emphasize how a key communicative relationships - like with supervisors, peers, or top management - affected their performance more than those in the manufacturing plant. However, the type of organization seemed to have little affect on the areas of employee communication satisfaction. In both organizations mean scores for the factors were in the positive range and reflected similar trends. The Personal Feedback dimension rated lowest in both companies, while Subordinate Communication and Supervisory Communication were rated higher.

Clampitt and Girard(1986) extended the study by analyzing a CSQ data base of 18 profit-making organizations involving over 1400 individuals. With the exception of the Personal Feedback factor, all the mean scores fell in the satisfied range. As in many other studies, the Supervisor Communication and Subordinate Communication dimension were rated most highly (cf. Avery 1977; Nicholson, 1980) The demographic variables were of limited usefulness in explaining the level of communication satisfaction. However, on every factor except Subordinate Communication employees in financial institutions were more satisfied than those in the service, manufacturing and media types of organizations. Clampitt and Girard(1986) point out that this was **not** due to a higher level of job satisfaction by those employees. Discriminant analyses showed that the construct of communication satisfaction was more effective in explaining job satisfaction than perceived productivity. In particular,

12

jackknifed estimates indicate that the communication satisfaction factors could distinguish between the most and least satisfied employees with 88% accuracy but only with 62% accuracy when the end product variable was a self-estimate of productivity.

Clampitt and Girard's(1986) study demonstrated some differences between various types of profit-making organizations. Kio's(1979) work completes the circle by examining the differences between nonprofit and profit organizations. Specifically, his study involves 90 government workers and 44 private workers in Nigeria. All the mean scores were in the positive range but the Subordinate Communication and Supervisor Communication factors were areas of greatest satisfaction. The Personal Feedback and Horizontal Communication dimensions were areas of least satisfaction. Kio(1979) speculates that the low score in the Horizontal Communication factor could be attributed to Nigerian workers equating the factor to gossip or rumors which precede traumatic events like a coup d'etat. While demographic variables did not significantly explain results, there were some other notable findings.

Line workers in either the government or private industry were less satisfied with communication than their administrative counterparts. Moreover, the government workers were more satisfied with CSQ factors than those in private industry. Kio(1979) did find significant correlations between all the CSQ factors and job satisfaction as well as perceived productivity. He also pointed out that these correlations varied based on which sector employees worked in and whether they were in line or staff positions. Finally, Kio(1979) noted that as the level of communication satisfaction increased, so did the level of need satisfaction as measured by the Need Satisfaction Index.

In order to put this array of studies into perspective it is important to look at the trends and patterns revealed by the researchers. However, another issue needs to be addressed first; namely, the general soundness of the

instrument as determined by other researchers.

Instrument Evaluation

All truly scientific endeavors require that results of research be tempered in the fire of further independent investigations. Sound research holds up to close scrutiny by others, unsound research does not. This is how true scientific progress is made. Unfortunately, in relatively new disciplines, like organizational communication, very little of that kind of research actually gets done. But fortunately, in the case of the Communication Satisfaction Instrument there has been some further independent testing. The Downs and Hazen(1976) instrument basically fares well.

Hecht(1978) reviewed a number of measures of communication satisfaction in a variety of domains and noted that for the CSQ "the thoroughness of the construction of this satisfaction measure is apparent" (p.363). He did mention some concern over the internal consistency reliability. Other researchers have addressed these issues in more depth. B. Wippich(1983) conducted a confirmatory factor analysis using exactly the same procedures reported by Downs and Hazen(1977) on data gathered from 150 school teachers. The hypothesized seven factor structure was retained, although the Subordinate Communication subscales were not administered. However, the items did not cluster as specified. Three factors - Supervisory Communication, Personal Feedback, and Horizontal Communication - retained much of their integrity, although the other dimensions were more problematic. Gorsuch(1983) recommends when doing this kind of factor analytic procedure a minimum respondent-to-item ratio of five-to-one. The B. Wippich(1983) study does not meet this criterion and hence must be viewed as somewhat suspect.

Crino and White(1981) tested the instrument on 137 first-line supervisors from five textile mills. Again they replicated the Downs and Hazen(1977) procedures. Just as B. Wippich(1983) they confirmed the
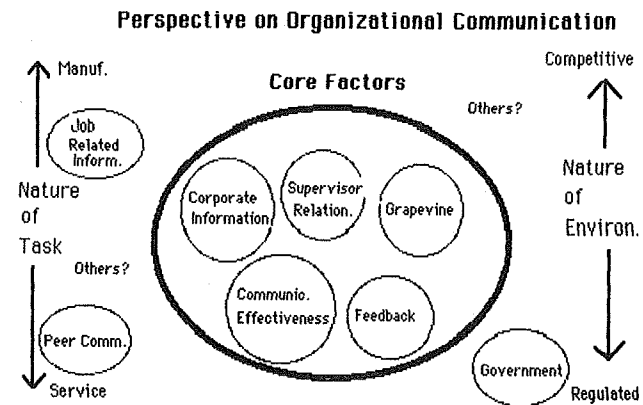
reasonableness of an eight factor solution. (They included the Subordinate Communication items.) And just as B. Wippich(1983) they found some difficulties in the subscale structure. But their study was problematic in the same sense as B. Wippich(1983) because their subject-to-item ratio of 3.4-to-1 was below the recommended one.

Pincus(1986) proposed a refinement to the instrument and introduced another factor, Top Management Communication, that he perceived filled a theoretical gap the CSQ. He suggests that his proposed nine factors fit nicely under three general categories: a) Relational Dimensions, b) Informational/Relational Dimensions, and c) Informational Dimensions (see Table 1). His sample of 327 nurses and subsequent factor analysis "largely confirmed the composition" of the three categories(p.403). While the factor analysis of the data was not a focal point of his research, it remains unclear if this was a test for a first or second order factor effect. Hence, the question of the integrity of the original eight plus the added dimension is not clearly answered.

Clampitt and Girard(1987) using a data base of 1494 subjects representing 20 different organizations within one Midwestern city examined the factor structure of the CSQ. Using similar procedures to Downs and Hazen(1976) they determined that a six-factor solution was most reasonable. Although there were some variances, four dimensions basically retained their integrity: Subordinate Communication, Corporate Information, Supervisory Relations, and Personal Feedback. Yet, Clampitt and Girard(1987) proposed two new dimensions based on a new clustering of the items: General Communication Effectiveness and Informal Communication. Moreover, they suggest that certain factors may be unique to different types of industry. (See Illustration 1) Clearly a databank this large meets the Gorsuch(1983) criteria. However, the regional nature of the databank causes some concern over the

15

generalizability of the research.

Illustration 1

Perspective on Organizational Communication

Two of the studies suggest that the eight factor solution is reasonable and thus providing a strong case for the the multi-dimensionality of the communication satisfaction construct(B. Wippich, 1983; Crino & White, 1981). The variances in the subscale structure seem to suggest that some adjustments need to be made. Further research can help with this level of refinement while perhaps addressing the theoretical and factor structure concerns raised by Clampitt and Girard(1987). Tempered in the fire of these investigations a number of observations can be made and these are reviewed below.

Discussion

The objective of this review of the literature was to synthesize the findings of the various studies that have used the Communication Satisfaction Questionnaire. In particular, eight observations are noteworthy.

16

First, the construct of communication satisfaction is indeed multi-dimensional. One of the primary objectives in the original Downs and Hazen(1976) study was to investigate if communication satisfaction went beyond the traditionally held uni-dimensional construct. Their research suggested eight dimensions. Crino and White(1981) as well as B. Wippich(1983) appeared to confirm these eight dimensions, although there were differences in the subscale structure. Even Clampitt and Girard(1987) who suggested a six-factor solution found that four of the original dimensions remained basically intact. With continued refinement the instrument will become even more useful. Yet, what is abundantly clear is that the Downs and Hazen(1976) notion of a multi-dimensional construct of communication satisfaction is well supported.

Second, the Communication Satisfaction Questionnaire has proved to be a useful tool for organizational diagnosis in a wide range of organizations. A majority of the studies reviewed above were case studies and it is clear that the organizations found the information useful. For example, meaningful comparisons can be made between different divisions of an organization as did Gordon(1979) and Alum(1982). This allows organizational consultants to pinpoint organizational strengths and weaknesses. Moreover, as can be seen in Table 2, researchers have reported that the instrument is useful in a wide-variety of different types of organizations and even in various cultures.

Third, while the studies indicate that for the most part employees are not dissatisfied with organizational communication, there are definite areas of greatest and least communication satisfaction. As can be seen in Table 3 and Illustration 2 very few of the studies revealed mean scores falling significantly below the conceptual midpoint. However, there were definite patterns across all the studies. One rough estimate of the degree of agreement between studies is to calculate the coefficient of concordance, a

17

nonparametric statistic, which is based on rank order of the mean scores (Siegel, 1956). In this case the Kendall's coefficient of concordance is at the fairly high level of .7148 (scores may range from a low of 0.0 to a high of 1.0) In particular, employees in most of the organizations expressed the greatest satisfaction with the Supervisor Communication and Subordinate Communication factors. On the other hand, the studies reveal a trend of lower satisfaction with the areas of Personal Feedback, Communication Climate, and Corporate Perspective.

Illustration 2

Communication Satisfaction Means for the Studies
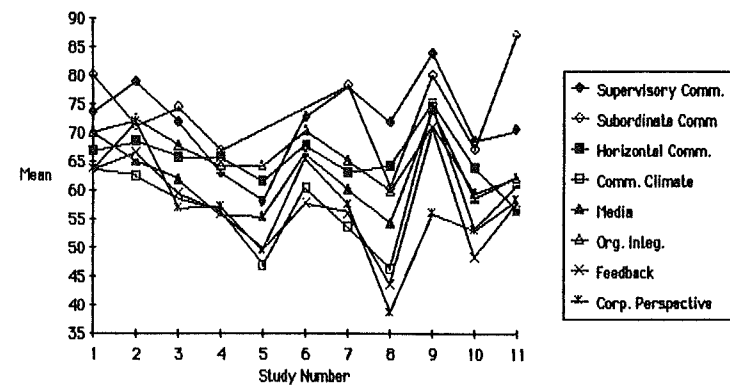
Fourth, demographic variables provided relatively poor explanations of the level of communication satisfaction. With few exceptions the demographic variables have revealed few clear trends(Pincus 1986; Clampitt & Girard, 1987) In the few cases where some effect was seen there may be some confounding variables that simply were not tested. For example, Thiry's(1977)

18

study of nurses found that age was a factor that influenced some of CSQ factor scores. Perhaps, cross tabulation examinations would have shown that position in the organization confounded the finding. At any rate, the general tendency in the studies suggests little in the way of a demographic/communication satisfaction link.

This observation suggests some important implications. For instance, no one sex, age bracket, or education level can be said to have a monopoly on communication satisfaction. Hence, communication training would be applicable to almost everyone in the organization. Likewise trying to target traditional problem groups for training would appear to be somewhat difficult. Furthermore, this observation suggests that some variables that are less easily assessed probably explain the communication satisfaction of any given individual. This brings the researcher face to face with the all encompassing and complex nature of communication. No one can be said to naturally grow into or grow out communication satisfaction.

Fifth, there does appear to be some indication that employees in managerial roles are more satisfied with communication than those who are not; however, no clearly discernible difference can be detected between employees of profit and nonprofit organizations. In the three studies that directly addressed supervision issue there was definite trend for administrators to be more satisfied with communication than their subordinates (Avery,1977; Thiry,1977; Kio,1979) In Nicholson's(1980) study of administrators and teachers in a rural school system she found three factors on which the administrators were significantly more satisfied. Only in Alum's(1982) study were administrators less satisfied than those in nonsupervisory roles. But he is careful to point that the economic turmoil at the time in the country may be the intervening variable. Thus, in general the studies suggest a trend for those in the supervisory roles to be more satisfied

19

with communication than those who are not. This seems reasonable in that those in these positions would necessarily receive more information than others. Those in supervisory roles also have more control over communication than those who are in nonsupervisory roles. In terms of being informed, nonsupervisory employees are usually at the mercy of other organizational members, who may or may not be disposed toward communication. Lacking a certain degree of control in almost any area of life can lead to dissatisfaction. Moreover, other researchers have found similar trends using different measures(Zajonc & Wolfe, 1978).

Kio(1979) in particular noted a significant difference between the communication satisfaction levels of employees from the profit and nonprofit organizations. However, he is careful to point out that these findings may be an artifact of the particular political situation in Nigeria at the time. Avery(1977) suggested that his "high levels" of communication satisfaction could be attributed to the fact that the case study was conducted in a federal agency. But at that time he had few other studies to compare his findings with. Analysis of Table 3 reveals few such differences between the profit and nonprofit sectors.

One caveat might be added to the general observation made above. The trend with supervisory personnel was not found to be the case in the Mexican organization investigated by Alum(1982). The "nontrend" concerning profit/nonprofit organizations was tempered by the Kio(1979) study. In both cases, the anomalies were from investigations in organizations with a drastically different economic and cultural base than the other organizations. Hence, the organizations environment, broadly conceived, no doubt has some impact on the communication satisfaction of employees.

Sixth, communication satisfaction does link to the end-product variables of job satisfaction and productivity. As seen in Table 4 every study reported

20

significant correlations between the seven main CSQ factors and job satisfaction. Only the Subordinate Communication factor did not show a significant correlation(Alum,1982; Pincus,1983; Jones,1981). Although all the studies did not consider the issue of employee productivity, those that did usually found some factors on which their was a strong correlations. As seen in Table 5 the Subordinate Communication factor was the most highly related. Moreover, Clampitt & Girard(1987) did show through discriminant analysis that the CSQ factors could with 62% accuracy distinguish between those employees with the highest and lowest self-estimates of productivity.

Seventh, communication satisfaction construct is more effective in explaining job satisfaction than productivity. Even a cursory comparison between Tables 4 and 5 shows that there more stronger and significant correlations with communication satisfaction/job satisfaction link than the communication satisfaction/productivity link. Moreover, using discriminant analysis Clampitt and Girard(1976) found that the CSQ factors were more effective in explaining job satisfaction, 88% accuracy, than perceived productivity, 62% accuracy. Since one of the criterions for the selection of CSQ items was that they discriminate between employees of high and low job satisfaction, these findings may not be all that surprising.

But this does not mean there is no relationship between communication satisfaction and productivity. Employee productivity is difficult to measure and with the exception of the Pincus(1983) study all the correlations reported in Table 5 are self-estimates of productivity. Using such measures, the ratings can be inflated which can become problematic. For instance, in the databank reported by Clampitt and Girard(1987) 77.9% of the employees report above average levels of productivity. Pincus(1986) suggests that theoretically some of CSQ dimensions should have a fairly significant impact on employee productivity but his research only partially supported this notion. However,

21

Clampitt and Downs(1983) did find that employees, when interviewed, felt that all the dimensions had an "above average" impact on their productivity with the Feedback and Communication Climate dimensions had the greatest, while the Horizontal Communication and Media Quality had the least. The link between communication satisfaction and productivity is somewhat murky, the proverbial call for more research seems warranted.

Finally, across these studies there are no clear and strong patterns of relationships between specific CSQ factors and the end product variables. In fact, the Kendal Coefficient of Concordance computed from Table 4 was only .39. This would suggest that there is little commonality between the studies with respect to how communication satisfaction relates to job satisfaction. Even when the studies are segregated based on nonprofit/profit status the coefficients are only, a moderately strong, .52 and .58 respectively. Such results parallel the findings of Pincus(1986) who found a coefficient of concordance score of .54 between his study, Thiry's(1981) study and the original work of Downs and Hazen(1976). However, he did note that the coefficient of concordance was .94 between his study of nurses and Thiry's(1977) research on nurses. The same kind of findings were evident in analyzing Table 5 and found a concordance coefficient of .49. Thus, for both major outcome measures there was little consistency across studies.

So what? The implication of these findings is that the relationship between communication and end products is probably contingent on the type of organization and industry in which employees work. Organizational scholars have been arguing for a contingency view for years and these findings coincide with such speculations. The communication/end product relationships may also be influenced by specific types of profession as Pincus(1986) suggests. Such findings might also lend credence to the Clampitt and Girard(1987) proposal that their are certain core communication factors in all organizations but that

22

there are certain industry specific communication satisfaction variables.

Future Directions

The initial aims of Downs and Hazen(1976) seem to have been most effectively reached. The evidence is clear about the mutli-dimensionality of communication satisfaction and the CSQ has proven useful for auditing purposes. But past successes should not obscure the future opportunities. In particular, some pragmatic and theoretical concerns deserve closer attention. With this frame of reference, a number of proposals seem appropriate.

First, the items for the CSQ factors should be refined. While only one researcher has challenged the basic factor structure of the CSQ, there have been several researchers that have suggested refinement of the items is in order. The aim should be to have an instrument that has the same level of stability as the Job Description Index that is a bench mark measure for job satisfaction.

Second, the theoretical nature of the factors needs to be further examined. As a starting point, a database of sufficient size and diversity could test the eight factor solution. This could easily be accomplished in tandem with the first suggestion. Perhaps as Pincus(1983) suggested there is indeed a need for a Top Management Communication dimension or maybe a Interdepartmental Communication as Clampitt & Girard(1986) have argued. Moreover, if there really are both core communication factors and organization specific ones, then a new theoretical view of organizational communication might emerge.

Third, the nature of "satisfaction" needs to be more fully explained. The CSQ asks employees to indicate their degree satisfaction with "the amount and/or quality" with the 40 communication items. Interviews conducted in conjunction with the administration of the CSQ often uncover that employees may feel satisfied with the amount of communication but disagree or dislike

23

the content. For example, in one organization in which the CSQ was administered and problems with feedback were exposed. Changes were initiated in the organization and every employee received a substantial amount of feedback about their performance over the next year. The CSQ was again administered and the Feedback factor was actually lower than a year before. Interview data revealed that employees got more feedback than before but they did not always like the content of the feedback. In particular, they did not like it when poor performance was specifically noted by management. Hence, there were two fairly low ratings on a dimension that had quite different meanings.

One possible solution to such problems might be develop different forms of instrumentation that take advantage of new technology. Questionnaires like the CSQ could be easily be administered on a computer. A set of basic questions such as the ones from the present CSQ could be administered to all employees. But the questionnaire would also have another set of questions that probed more specifically into all the fundamental factors. As an employee takes the initial set of items, the computer could be programed to analyze the data and determine areas that need further probing. Only in those areas would the secondary items be administered. Thus, the questionnaire would not be unwieldy but provide the necessary specificity needed for organizational analysis. For example, an employee may take the CSQ and the program determines that he is quite dissatisfied with the Feedback factor, then the computer would automatically ask further questions about feedback and could even ask open-ended questions. But if the employee was basically satisfied with the Feedback area as opposed to say the Supervisory Communication factor, then the employee would be asked further questions about Supervisory Communication and not about the Feedback area. Since norms are available for each of the factors, it is certainly within the realm of possibility to construct such a questionnaire.

24

Table 1

Pincus Conception of the Communication Satisfaction Factors

Relational Dimensions	Informational/Relational Dimensions	Informational Dimensions
• Subordinate Comm.	• Personal Feedback	• Media Quality
• Horizontal Comm.	• Comm. Climate	• Organ. Integration
• Top Manage. Comm.*	• Supervisory Comm	• Organ. Perspective

* The factor added by Pincus(1986).

Table 2
Communication Satisfaction Research

*	Researcher	Organization	Profit/ Nonprofit	Subjects	Sample Size	Percent Response	Country
1	Avery (1977)	U.S. Government Agency	Nonprofit	Govern. Employees	135	61%	U.S.A.
2	Gordon(1979)	University	Nonprofit	Admin.	41	66%	U.S.A.
3	Nicholson (1980)	Urban School District	Nonprofit	Admin. & Teachers	290	72%	U.S.A.
4	Jones (1981)	Rural School District	Nonprofit	Admin. & Teachers	142	71%	U.S.A.
5	Duke (1981)	Urban School District	Nonprofit	Bus. Ed. Teachers	309	63%	U.S.A.
6	Wippich (1983)	Urban & Rural School Districts	Nonprofit	Teachers	150	75%	U.S.A.
7	Thiry (1977)	Hospitals & Clinics	Profit	Registered Nurses	1,069	71%	U.S.A.
8	Pincus (1986)	Urban Hospital	Profit	Nurses	327	66%	U.S.A.
9	Alum (1982)	Service Organ.	Profit	Managers & Line Workers	274	72%	Mexico
10	Clampitt (1987)	Various	Profit	Managers & Workers	1494	85%	U.S.A.
11	Kio (1979)	Government & Business	Mix	Admin. & Line Workers	134	100%	U.S.A.

* The initial number corresponds to the order in which the studies are discussed.

Table 3
CSQ Factor Means for Studies

Study	Sub. Com.	Sup. Com.	Integ.	Peer	Media	Climate	Feedback	Corp. Pers.
1	80.00	73.33	70.00	66.67	70.00	63.33	63.33	63.33
2	70.97	78.63	72.20	68.30	64.80	62.32	66.43	71.63
3	74.17	71.77	67.60	65.47	61.73	58.33	59.20	56.67
4	66.67	62.77	63.97	65.43	55.47	56.03	55.70	56.97
5	--	57.87	64.13	61.23	55.17	**46.77**	**49.57**	**49.30**
6	--	72.43	70.10	67.43	65.97	60.10	57.43	65.03
7	78.07	77.83	64.93	62.80	59.83	53.53	55.87	57.10
8	60.24	71.55	59.64	64.05	54.04	**46.07**	**43.46**	**38.53**
9	80.00	83.67	71.00	75.00	73.67	74.33	70.67	55.67
10	66.86	68.36	59.24	63.62	58.34	53.12	**47.98**	52.70
11	87.00	70.33	62.00	56.33	62.33	61.00	57.67	58.0
Rank	1	2	3	4	5	6	7	8

* The numbers that are **boldfaced** indicate a mean below the conceptual midpoint. Studies 1-6 are from nonprofit organizations and studies **7-11** are from profit making ones.

Table 4
CSQ/Job Satisfaction Correlations for Studies

Study	Climate	Feedback	Sup. Comm.	Integ.	Peer	Media	Corp.Pers.	Sub. Comm.
1	.51	.47	.47	.42	.53	.15	.39	.51
3	.36	.34	.33	.31	.31	.27	.29	.30
4	.48	.48	.35	.32	.36	.32	.36	.13
5	.53	.42	.42	.44	.46	.43	.43	--
7	.49	.49	.48	.42	.42	.47	.32	.33
8	.39	.38	.43	.32	.24	.28	.23	.22
9	.21	.28	.22	.20	.14	.15	.15	.01
10	.51	.51	.50	.48	.38	.49	.38	.36
11	.45	.43	.47	.58	.43	.46	.43	.57
Rank	1	2	3	4	5	6	7	8

* Correlations that are **boldfaced** are significant at .05 level.

Table 5
CSQ/Performance Correlations for Studies

Study	Sub. Com.	Integ.	Sup.Com.	Climate	Feedback	Peer	Media	Corp. Persp.
7	.15	.21	.24	.19	.20	.15	.17	.12
8	.25	.07	.21	.12	.07	.03	.02	-.08
9	.27	.08	.05	.10	.07	.04	.02	.02
10	.19	.17	.19	.10	.13	.13	.13	.13
11	.33	**.35**	**.31**	**.32**	.22	**.25**	**.23**	**.25**
Rank	1	2	3	4	5	6	7	8

* Correlations that are **boldfaced** are significant at .05 level.

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