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ABSTRACT

In 1960, French and Raven postulated five bases of supervisory power: legitimate, expert, referent, reward, and coercive. Research studies in the middle and late 1960s in various work settings revealed the effectiveness of legitimate and expert supervisory power on worker behavior and satisfaction. The purpose of this study was to determine if this pattern would be manifested among public school teachers in the late 1970s. The Bachman questionnaire was administered to 683 public school teachers employed in Connecticut and Pennsylvania. The results generally paralleled the pattern of previous studies. In general it was found that legitimate and expert power were for public school teachers, like other organizational role groups and across various situational subcategories, the preferred bases for supervisions that expert and referent power were for teachers the highest correlates of satisfaction with supervisor's performance; and that the levels of institutional and interpersonal control perceived by teachers for themselves and for principals were also significantly and directly related to satisfaction with the principal's performance.
(Author/IRT)

Bases of Power Among Public School Principals

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School principals are expressing growing concern over the erosion of the bases of power from which they are expected to exert leadership in the schools. The emergence of collective bargaining, student rights, community control, and other legal developments raise important questions regarding the leadership role of principals and the bases of their supervisory power. Why, for example, do teachers in today's schools comply with the principal's requests? To what extent is control of the schools being shared? What type of supervisory power is most closely associated with teacher satisfaction with the principal's performance? The answers to these questions hold considerable significance for the effectiveness of principals as instructional leaders in our elementary and secondary schools.

The sources of administrators' influence and the ways in which these sources affect subordinates have been probed by researchers in several organizational contexts. In the late 1960's Bachman and his associates[1] conducted comparative studies of the bases of supervisory power in business, industry, and colleges. They approached the problem by assessing the relative importance of the bases of social power identified by French and Raven.[2] The five bases of power hypothesized by French and Raven were: legitimate power, reward power, coercive power, referent power, and expert power. The Bachman studies sought to determine the relative importance of each of these bases of power in terms of subordinates' perceptions.

The results of the Bachman studies indicated that the two most important reasons subordinates comply with the wishes of their supervisors were legitimate

power and expert power. The order of importance of these two bases of power varied with the organizational setting but they ranked first or second in all cases studied by Bachman and his associates. For example, expert power was put in first place and legitimate power was ranked second among salesmen in branch offices and semi-skilled workers in a utility company. Among insurance agents and liberal arts college faculty the rank order of these two power bases were reversed. Among production workers, legitimate power and expert power tied for first place.

Other studies yielded similar results overall among faculty members in higher educational institutions, but revealed specific differences according to the situational context. Cope,[3] for example, found that college faculty in a large public university ranked legitimate power as the most influential power base for department chairpersons, while Parsons and Platt[4] found that faculty in eight institutions gave top ranking to the chairpersons' expert power.

In their textbook on educational supervision, Sergiovanni and Starrat[5] summarized the findings of the studies from the late 1960's and hypothesized that similar results would be evidenced among public school teachers. They suggested that legitimate power and expert power would account for most of the principal's influence with public school teachers.

There have been some efforts to analyze the bases of power in public school settings. These studies, however, provide only limited opportunities for comparison with those conducted in other settings due to varied procedures and limited samples. Hornstein and his associates[6] undertook a study of the bases of power among public school teachers. Their study was limited to primary-grade teachers in two suburban school systems and did not provide mean ratings for the five bases of power. Instead they only reported correlation coefficients between teachers rankings of the bases of power and other variables, such as satisfaction with the

principal's performance and control exercised by the teachers and principals. Their findings replicated Bachman's correlational results; namely that expert power and referent power provided the strongest and most consistently positive relationship with teacher satisfaction. Legitimate power was not positively nor strongly related to teacher satisfaction.

Another study of the bases of power in a public school setting was conducted by Balderson.[7] The Balderson study was limited to elementary schools in one urban school district in Canada. Opportunities for comparing these findings with previous studies are also obscured by methodological differences. The Balderson study, for example, employed a single-choice rather than a rank-order approach, yielding results in the form of percentages rather than means. Expert power emerged as predominant both in terms of its perceived utilization by principals as well as its perceived association with other variables, such as satisfaction with the principal's performance.

The purposes of the present study, were to determine (1) if the pattern of influence of the bases of power which emerged in previous research would be manifested in the late 1970's among a broad sample of public school teachers, and (2) if, within the overall pattern, discernible differences would emerge in relation to situational subcategories such as school size, level, and location. Thus, this study sought to provide new insight into such questions as:

- Is the legitimate power of the principal still a significant influence?
- Do the bases of power in public schools differ from those in other organizations?
- Are there discernible differences in the bases of power in different school settings?
- Do teachers perceive themselves vis-a-vis their principals as important controlling influences in their schools?
- How are teachers' perceived levels of control and satisfaction related to the bases of power utilized by the principals?

METHODOLOGY

Research Sites

The participating sample for this study included 683 public school teachers employed in 64 schools in Pennsylvania and Connecticut. Approximately 10 per cent (n = 68) of the responses were rejected because of respondent error, such as failure to follow directions or to furnish complete data. The data-producing sample, consequently, consisted of 619 teachers distributed in the following subcategories: schools in Pennsylvania - 64%, schools in Connecticut - 36%; elementary teachers - 54%, secondary teachers - 46%; urban community - 38%, suburban community - 36%, rural community - 26%; in schools enrolling less than 500 pupils - 24%, in schools enrolling more than 500 but less than 1000 pupils - 45%, in schools with more than 1000 but less than 1500 pupils - 12%, in schools with more than 1500 pupils - 19%.

The data were collected by part-time graduate students in educational supervision courses at two small, private universities -- one in northeastern Pennsylvania and the other in central Connecticut. These graduate students were employed in school systems widely distributed within a 75-mile radius of either university. Each of the graduate students collected data from 10-12 randomly selected teachers in his/her school.

Measures

The questionnaire used to collect the data for this study was modeled after the Bachman instrument and provided for the anonymity of the respondents. The respondents were first presented with five items which reflected the five bases of power identified by French and Raven without identifying them as such. The specific items which the teachers were asked to rank according to their importance

as reasons for doing what the principal asks or suggests were as follows [The parenthetical labels are added her to clarify the power base to which each item refers.]:

> "I admire him/her for his/her personal qualities and want to act in a way that merits his/her respect and admiration." (referent power)
>
> "I respect his/her competence and good judgements about things with which he/she is more experienced than I." (expert power)
>
> "He/she can give special help and benefits to those who cooperate with him/her." (reward power)
>
> "He/she can apply pressure or penalize those who do not cooperate." (coercive power)
>
> "He/she has a legitimate right, considering his/her position, to expect that his/her suggestions will be carried out." (legitimate power)

The ranking procedure forces the respondent to discriminate among all bases of power, rather than giving prominence to only one or two. Moreover, it avoids the common contaminating tendency of rating the amount rather than the nature of the power bases. However, this procedure does not provide independence for each item, which is an advantage of a rating procedure.

Paralleling the Bachman instrument, the questionnaire also included items dealing with satisfaction and control. As a measure of overall satisfaction, the respondents were asked to indicate agreement or disagreement on a five-point scale with the following statement:

> "All things considered, how satisfied are you with the way the principal of your school is doing his/her job."

Control was measured in terms of its institutional (amount of influence over the way the school is run) and interpersonal (amount of influence between the principal and teachers) factors. Likert-type responses to the following two items were combined as a measure of institutional control:

"In general, how much say or influence do you feel the principal has on how your school is run?"

"In general, how much say or influence do you feel the teachers as a group have on how your school is run?"

Responses to the following items were similarly summed to arrive at a measure of interpersonal control:

"In general, how much say or influence does your principal have with the teachers when it comes to activities and decisions that affect the performance of your school?"

"Now, thinking in the other direction, how much say or influence do teachers as a group have on your principal when it comes to his/her activities and decisions that affect the performance of your school?"

Each control item used response categories ranging from 1, "little or no influence" to 5, "a great deal of influence." A measure of total control was derived from summing the responses to these last four items on the questionnaire.

RESULTS*

The teachers' rankings of the bases of power are reported in Table 1. As the first column reveals, the results for the total sample parallel the pattern found for other settings and samples. Specifically, legitimate and expert power emerged as paramount, followed respectively by referent, reward, and coercive bases of power. This pattern prevailed regardless of the community type and state setting. A negligible variation was found for school level, given a virtual tie for last place between coercive and reward power for secondary school teachers.

[PLACE TABLE I APPROXIMATELY HERE.]

More noticeable variations were found for school size. Regardless of school size, teachers ranked legitimate power as the number one reason they accede to the wishes of the principal. However, differences were evidenced among the other four bases of power. Teachers in the two larger categories of schools indicated,

* The authors acknowledge with appreciation the assistance of Joseph R. Little, doctoral student in Education, in the analysis of the data reported in this study.

TABLE I

MEAN AND RELATIVE TEACHER RANKING OF FIVE BASES OF POWER: OVERALL AND BY SITUATIONAL CATEGORY

Bases of Power	Overall	School Level		School Size				State		Community Type		
		Elem.	Sec.	<500	500-1000	1000-1500	>1500	Penna.	Conn.	Urban	Suburban	Rural
	(n=619)	(n=334)	(n=285)	(n=146)	(n=282)	(n=74)	(n=117)	(n=399)	(n=220)	(n=237)	(n=220)	(n=162)
Legitimate	3.88 (1)	3.75 (1)	4.03 (1)	4.00 (1)	4.07 (1)	4.20 (1)	3.88 (1)	3.85 (1)	3.92 (1)	3.91 (1)	3.94 (1)	3.84 (1)
Expert	3.54 (2)	3.70 (2)	3.35 (2)	3.77 (2)	3.59 (2)	3.58 (3)	2.10 (3)	3.55 (2)	3.51 (2)	3.47 (2)	3.54 (2)	3.64 (2)
Referent	2.81 (3)	2.88 (3)	2.71 (3)	2.85 (3)	2.89 (3)	3.77 (2)	1.56 (5)	2.83 (3)	2.74 (3)	2.83 (3)	2.74 (3)	2.86 (3)
Reward	2.45 (4)	2.44 (4)	2.45 (5)	2.45 (4)	2.37 (4)	1.11 (5)	2.84 (2)	2.43 (4)	2.48 (4)	2.47 (4)	2.44 (4)	2.44 (4)
Coercive	2.34 (5)	2.24 (5)	2.46 (4)	2.14 (5)	2.37 (5)	1.34 (4)	1.63 (4)	2.34 (5)	2.35 (5)	2.32 (5)	2.17 (5)	2.35 (5)

on the average, that expert power was the third rather than second most important reason for complying with the principal's wishes. Referent power emerged in second place for upper-middle size schools but was ranked last in the largest schools, where teachers gave reward power an otherwise unusual second-place ranking.

Comparative Rankings

The rankings of the bases of power obtained through this study are compared with those obtained by previously cited studies in Table II.[8] The public school teachers joined branch office salesmen, semi-skilled utility workers, and one group of college faculty in ranking legitimate power as number one and expert power as number two. Insurance agents and two groups of college faculty reversed this order, ranking expert power as number one and legitimate power as number two. Production workers straddled these groups by placing legitimate power and expert power in a tie for number one ranking. All groups consistently downgraded coercive power by relegating this base of influence to either fourth or fifth rank.

[PLACE TABLE II APPROXIMATELY HERE.]

Bases of Power and Satisfaction

The second part of the questionnaire asked the respondents to indicate their level of satisfaction with the way the principal was doing his job. The mean satisfaction rating for the total sample, on a scale of one to five, was 3.48. This result was similar to the limited reports of other settings.[9] The teacher satisfaction scores were then correlated with those for the five bases of power using school mean criterion scores for the 64 schools included in the study.

The results by school site revealed a high positive relationship between teacher satisfaction with the principal's performance and teacher preference for the principal's use of referent power (r = .76) and expert power (r = .72). Strong negative

TABLE II

COMPARATIVE RANKINGS OF BASES OF POWER

Bases of Power	Branch Office Salesmen toward Office Managers (Bachman 1968)	Utility Co. Semi-skilled Workers toward Foreman (Bachman 1968)	Production Workers toward Foremen (Bachman 1968)	Insurance Agents toward Regional Managers (Bachman 1968)	Higher Education Faculty toward Dean (Bachman 1960)	Higher Ed. Faculty toward Chairman (Cope 1971)	Higher Ed. Faculty toward Chairman (Parsons 1968)	Public School Teachers toward Principal (1978)
Legitimate	1	1	1.5	2	2	1	2	1
Expert	2	2	1.5	1	1	2	1	2
Referent	3	5	4	4	3	3	3	3
Reward	4	3	3	3	4	5	4.5	4
Coercive	5	4	5	5	5	4	4.5	5

correlations were evidenced between teacher satisfaction and the perceived use of coercive ($r = -.77$) and reward ($r = -.58$) power, with a somewhat lesser negative correlation with legitimate power ($r = -.28$).

As shown in Table III, these group results for public school teachers parallel those obtained by Bachman generally for other settings and particularly (also found in Table II) for branch office salesmen. Satisfaction with the organizational supervisor's performance was positively and, in most cases, significantly associated with his/her use of referent and expert power. It seems appropriate to reiterate the caution expressed by Bachman[10] that the negative correlations for coercive, reward, and legitimate power may have been caused by the positive correlations for referent and expert power. The ranking procedure makes it impossible for all five bases of power to be correlated in the same direction with any single criterion variable.

[PLACE TABLE III APPROXIMATELY HERE]

The correlation between the satisfaction variable and the five bases of power was also calculated on the basis of individual criterion scores in order to facilitate comparison with Hornstein's study of teachers assigned to primary grades in public elementary schools. As shown in Table IV, a similar pattern emerged in both studies; teacher satisfaction had a significant, positive correlation with expert and referent power and a significant, negative correlation with reward and coercive power. The strength of the first two and the last one of these four correlations was more pronounced in the present study, whereas the negative correlation for legitimate power was more marked in the Hornstein study. Balderson obtained similar findings by analyzing means rather than correlations.

[PLACE TABLE IV APPROXIMATELY HERE]

TABLE III

CORRELATION COEFFICIENTS OF SATISFACTION WITH SUPERIOR AND BASES OF POWER: GROUP ANALYSIS

Bases of Power	Branch Office Salesmen (n=36)	Utility Co. Workers (n=20)	Production Workers (n=40)	Insurance Agents (n=40)	College Faculty (n=12)	Public School Teachers (n=56)
Referent	.75**	.11	.57**	.43*	.67*	.76**
Expert	.69**	.30	.67**	.88**	.75**	.72**
Reward	-.51**	-.12	.27	.48**	-.80**	-.58**
Legitimate	-.57**	-.35	.40*	.04	-.52	-.26*
Coercive	-.71**	-.23	.01	-.52**	-.70*	-.77**

* $p < .05$, two-tailed
** $p < .01$, two-tailed

TABLE IV

CORRELATION COEFFICIENTS OF SATISFACTION WITH SUPERIOR AND BASES OF POWER: INDIVIDUAL ANALYSIS

Bases of Power	Public School Teachers: Primary Grades (n = 325)	Public School Teachers: Elementary & Secondary (n = 619)
Referent	.12*	.49**
Expert	.29**	.51**
Reward	-.30**	-.30**
Legitimate	-.24**	-.13
Coercive	-.32**	-.56**

* $p < .05$, two-tailed
** $p < .01$, two-tailed

Control and Satisfaction

The manner in which control over the school is exerted was also assessed using two related but different factors: (1) institutional control, which is the amount of influence exerted over the way the school is run, and (2) interpersonal control, which deals with the influence patterns between the principal and the teachers. The respective means for institutional and interpersonal control and the correlation coefficients with teacher satisfaction are shown in Table V.

[PLACE TABLE V APPROXIMATELY HERE]

The findings in this area also approximated those of studies in other settings. The group-level analysis, for which both means and correlation coefficients are available for comparison, reveals a similar pattern between the branch office and public school settings, particularly for institutional control. The major difference is that office managers seem to have a higher average level of control than do the principals, as perceived by their respective organizational subordinates. Due to Bachman's omission of means, comparisons across the two school settings are limited to correlational results.[11] In both settings, significant positive correlations between the various types of control and teacher satisfaction were found, with more pronounced coefficients in the present study.

DISCUSSION

In summary, the results of this study were: (1) that legitimate and expert power were for public school teachers, like other organizational role groups and across various situational subcategories, the preferred base for supervision; (2) that expert and referent power were for teachers, like personnel in other work settings, the highest correlates of satisfaction with supervisor's performance; and (3) that the levels of institutional and interpersonal control perceived by

TABLE V

CORRELATION COEFFICIENTS BETWEEN CONTROL AND TEACHER SATISFACTION

Type of Control	Group Analysis				Individual Analysis	
	Branch Office Salesmen		Public School Teachers		Primary Teachers	Elementary & Secondary
Institutional						
Supervisor	4.57	.60**	3.97	.60**	.23**	.32**
Subordinate	3.01	.60**	3.07	.56**	.25**	.40**
Total	7.58	.79**	7.04	.71**	.25**	.47**
Interpersonal						
Supervisor	4.30	.82**	3.66	.65**	.31**	.39**
Subordinate	3.00	.75**	2.98	.55**	.29**	.42**
Total	7.30	.88**	6.64	.64**	.33**	.50**

** $p \leq .01$

teachers for themselves and for principals were also significant and directly related to satisfaction with the principal's performance.

These results are subject to the limitations inherent in correlation studies and cannot be fully compared with those of two previous school studies which utilized data-collection and -reporting procedures that varied from the Bachman studies. However, the consistency of results of studies covering a period of more than a decade serves to increase our confidence in the findings of this investigation. Further, it reveals a common ground for further research to test general theories of administration. More sophisticated techniques are needed, for example, to sort out the social-desirability element of such survey-questionnaire items. There is a tendency to respond favorably to "nice" bases of power, as compared to the negative connotations inherent in Bachman's statements for reward and coercive power.

Nevertheless, this study updates and expands our insights into the five bases of power hypothesized by French and Raven as they specifically relate to the school principal's role in today's elementary and secondary schools. The results indicate that despite the changes that have occurred, the bases of power from which principals operate today exhibit essentially the same pattern as prevailed in schools and other settings in the 1960's. In addition, the results suggest answers to several pertinent questions regarding the supervisory power of the principal and its effect on teachers.

The results speak to the concerns which principals appropriately have about the erosion of their bases of power, and suggest approaches that could be utilized to function effectively in an organizational setting which is experiencing a redistribution power. The implications emerging from this study include the following:

1. The erosion of the principal's legitimate power is more imagined than real. The primary reason public school teachers do what the principal requests

or directs is their recognition and acceptance of the legitimate power of the office. This finding holds up regardless of the school level or size and the community type or location.

2. The influence of principals depends to a considerable degree on their possession of special knowledge and skills which enable them to help teachers achieve their goals. This conclusion is reflected in the consistently high ranking of expert power and its significant direct relationship to teacher satisfaction with the principal's performance. It indicates one way in which principals can offset the erosion in their legitimate power. The preparation, selection, inservice training, and evaluation of school principals should be modified to enhance the expertise base of their supervisory power.

3. Principals in larger schools are less likely to capitalize an expert power than those in smaller schools. Teachers in larger schools differed from their colleagues in smaller schools by giving expert power a third place ranking. Presumably, there is less opportunity or inclination for principals in larger schools to engage in direct program and staff development activities with teachers, but to the extent possible this gap would seem to be worth closing.

4. Rewards and coercion are not viewed favorably as either bases of supervisory power or correlates of satisfaction with the principals performance. Personal (or referent) influence remains effective, but reliance on remote authority and material reinforcement or punishment is apparently deleterious to staff satisfaction and responsiveness.

5. Control in the schools appears to be perceived as a win-win situation to a considerable extent. Teacher satisfaction is positively correlated not only with their own perceived levels of institutional and interpersonal

control but also with their perception of the principal's levels of institutional and interpersonal control. This finding is consistent with the observations of Tannenbaum[12] and others who indicate that power in an organization is not a fixed quantity which is shared by one group at the expense of another. Rather, it can increase reciprocally. Principals who interact with teachers and solicit their opinions can obtain more responsiveness and better morale. Thus, this research challenges some of the traditional practices that have grown out of "the all or nothing law of power."[13]

Notes

[1]Jerald G. Bachman, David G. Bowers, and Philip M. Marcus, "Bases of Supervisory Power: A Comparative Study in Five Organizational Settings," in Control in Organizations, ed. by Arnold J. Tannenbaum (New York: McGraw-Hill, 1968), pp. 229-238; Jerald G. Bachman, Clagett G. Smith, and Jonathan A. Slesinger, "Control, Performance and Satisfaction: An Analysis of Structural and Individual Effects," Journal of Personality and Social Psychology, 4 (August, 1966), 127-136, reprinted in Tannenbaum, pp. 213-226; Jerald G. Bachman, "Faculty Satisfaction and the Dean's Influence: An Organizational Study of Twelve Liberal Arts Colleges," Journal of Applied Psychology, 52 (1968): 55-61.

[2]John R.P. French and Bertram Raven, "The Bases of Social Power," in Group Dynamics: Research and Theory, ed. by Dorwin Cartwright and Alvin F. Zander (New York: Harper and Row, 1968), pp. 259-269. For an application of French and Raven's typology to another area of concern to educators, see: Billy D. Hauserman, "Power Bases in Inservice Teacher Education," Inservice (NCSIE Newsletter published by Syracuse University), July 1978, pp. 6-8.

[3]Robert G. Cope, "Bases of Power, Administrative Preferences and Job Satisfaction: A Situational Approach," Journal of Vocational Behavior, 2 (October, 1972): 457-465.

[4]T. Parsons and G.M. Platt, "The Academic Profession: A Pilot Study," (report of a study supported by the National Science Foundation, March, 1968) cited by Cope, "Bases of Power," pp. 461-462.

[5]Thomas J. Sergiovanni and Robert J. Starrat, Emerging Patterns of Supervision: Human Perspectives (New York: McGraw-Hill, 1971), pp. 43-47.

[6]Harvey A. Hornstein, D.M. Callahan, and B.A. Benedict, "Influence and Satisfaction in Organizations: A Replication," Sociology of Education, 41 (Fall, 1968): 380-389.

[7]James H. Balderson, "Principal Power Bases: Some Observations," The Canadian Administrator, 14 (April, 1975): 1-5.

[8]Hornstein's and Balderson's results are not summarized here because of omissions and variations, respectively, in their data-reporting procedures.

[9]Bachman only reported mean satisfaction levels for branch office salesmen ($\bar{x}$ = 3.78) and college faculty ($\bar{x}$ = 3.56). His primary focus and Hornstein's exclusive focus for this variable was correlational analyses.

[10]Jerald G. Bachman, David G. Bowers, and Philip M. Marcus, "Bases of Supervisory Power," pp. 233-234.

[11]Hornstein's sight variation in the wording of one of the two interpersonal control items may also serve to limit comparisons. In contrast to Bachman's and the present study, Hornstein asked how much influence the principal has on teachers when it comes to the performance of their classroom activities rather than the performance of the school.

[12]Arnold S. Tannenbaum, "Control in Organizations: Individual Adjustment and Organizational Performance," Administrative Science Quarterly, 7 (September, 1962): 236-259. For studies using other methodologies but arriving at similar conclusions in academic organizations, see: Winston H. Hill and Wendell L. French, "Perceptions of the Power of Department Chairmen by Professors," Administrative Science Quarterly, 2, 4 (1967): 548-574; William S. Place and Peter F. Sorensen, Jr., "Perceptions of Influence Relationships and Faculty Satisfaction: A Study in Organizational Control," Perceptual and Motor Skills, 38 (June, 1974): 953-954.

[13]"Managerial Control: A Middle Way," Research Action Brief (ERIC Clearinghouse on Educational Management), June 1978.