# AN ANALYSIS OF POWER IN A WORK SETTING\*

College of Business Administration, University of Iowa; and Graduate School of Business and Industrial Relations Research Institute, University of Wisconsin-Madison

ARTHUR P. BRIEF, 1 RAMON J. ALDAG, AND CRAIG J. RUSSELL

### SUMMARY

After Kipnis et al., it was hypothesized that superiors who believe they employ strong means of influence attribute the behavior of their subordinates to that influence, devalue the contributions of their subordinates, and increase the social distance between themselves and their subordinates. Also, the effects of superior power from the viewpoint of the subordinate were assessed. With the use of different measures of power, attribution, and performance from Kipnis et al. and a sample of 77 female and male American nurses, it was found that superiors who perceive themselves to be relatively powerful report a greater social distance from their subordinates than less powerful superiors. Kipnis et al.'s other findings generally were not replicated. Examined subordinate reactions were shown to be minimal. The limitations of the study and the need to further explore the role of superior power in work settings are discussed.

## A. Introduction

The work of several authors suggests that superiors who believe they employ strong means of influence attribute the behaviors of their subordinates to that influence rather than to the subordinates themselves (e.g., 3, 4, 7, 9, 14, 19, 24). Further, findings indicate that these superiors tend to devalue the contributions of their subordinates and to increase the social distance between themselves and their subordinates (4, 12, 14, 21, 22, 23). Kipnis (15) collectively labeled these three phenomena the metamorphic effects of power.

Recently Kipnis, Castell, Gergen, and Mauch (16) examined the above propositions in two field settings. In particular, in housewife-maid dyads

Requests for reprints should be sent to the first author at the address shown at the end of this article.

<sup>\*</sup> Received in the Editorial Office, Provincetown, Massachusetts, on August 14, 1978. Copyright, 1979, by The Journal Press.

they found that supervisors who reported frequent use of a strong means of influence were less likely to attribute satisfactory job performance to the maids' own motivation to do well than were others. These supervisors also reported that when satisfactory job performance was obtained it was due to their close supervision of the subordinate (a strong means of influence). Among those supervisors who perceived the subordinate's performance to be dependent on close supervision, subordinate's ability was rated poorly. When satisfactory performance was attributed to the subordinate's own motivation, supervisors rated the subordinate's ability highly. Moderate support was found for the proposition that supervisors providing close supervision tended to perceive relatively great social distance between themselves and the subordinate.

The Kipnis  $et\ al.\ (16)$  study is incomplete in that the focus of the investigation was on the superiors' reactions to their exercise of power. One purpose of the present study, therefore, is to examine the effects of power from an additional viewpoint, that of the subordinate. From the superior's perspective, it is predicted that the more powerful the superior perceives him/herself to be, (a) the more the superior attributes the cause of subordinate job behaviors to extrinsic rather than intrinsic outcomes, (b) the more socially distant the superior will report being from the subordinate, and (c) the more the superior will devalue the subordinate's job performance. From the subordinate's perspective, it is predicted that the more powerful the subordinate perceives the superior to be, (a) the more the subordinate will attribute the cause of his/her job behaviors to extrinsic rather than intrinsic outcomes, (b) the more socially distant the subordinate will report being from the superior, and (c) the less satisfied the subordinate will be with his/her job.

This paper reports on a test of the above hypotheses among a sample of registered nurses and their immediate superiors.

### В. Метнор

#### 1. Sample

The sample used was 210 registered nurses in the State of Iowa. The sample was randomly drawn from the population of all registered nurses reporting to the Iowa Board of Nursing that they were employed fulltime as general duty nurses in a hospital. One hundred twenty-two nurses responded to a mailed questionnaire for a response rate of 56 percent. The respondents were asked to identify their immediate superiors. Those

superiors were also subsequently mailed a questionnaire. Seventy-seven supervisors responded for a response rate of 63 percent.

## 2. Measures

Perceived superior power was measured by a four-item instrument. Nurses and their superiors were presented with two positive job behaviors (e.g., for nurses, "Because of an unusually heavy amont of work in your area, you voluntarily work through your lunch hour and after hours for several days") and two negative job behaviors (e.g., for nurses, "You arrive at work late for the second time in a week"). Following each hypothetical job behavior, respondents were asked to indicate how frequently their immediate superior (or for superiors, how frequently the subordinate) would engage in each of approximately 20 reactive behaviors. Embedded in each list of reactive behaviors was the item, "Says and does nothing about the incident." The item was gauged on a five-point Likert-like scale from 1 (would never occur) to 5 (would always occur). Responses were summed across the four incidents and reversed. Thus, high scores on the power instrument are indicative of a superior who reacts to subordinate behaviors (e.g., promises, rewards, threatens, or punishes) and low scores are indicative of a superior who exercises little power. The degree of convergence between superior and subordinate scores within dyads was statistically significant (r = .32,  $p \le .01$ ). Further, principal components analyses for superior and subordinate responses to the four items each yielded only one factor with an eigenvalue greater than one.<sup>2</sup> Finally, the coefficient alpha [Cronbach (8)] estimates of internal consistency reliability for superiors ( $\alpha = .63$ ) and subordinates ( $\alpha = .65$ ) are acceptable for an instrument in early stages of development [cf. Nunnally (17)].

Attribution of motivation was measured by a scale consisting of 25 forced-choice items cf. (2). Respondents were required to choose between an extrinsic outcome (e.g., pay raise, job security, or promotion) and an intrinsic outcome (e.g., giving help to others, personal growth and development, or offering good service) as the dominant cause of own (or, for superiors, subordinate) job behaviors. High scores represent attribution to intrinsic outcomes and low scores to extrinsic outcomes. According to Brief and Aldag (6) extrinsic outcomes are by definition regulated by the employer. Therefore, a negative, significant relationship is expected between the power indices and the attribution scores.

<sup>&</sup>lt;sup>2</sup> The factor matrices with eigenvalues are available from the first author upon request.

Social distance was measured by a five-item scale developed by Kipnis *et al.* (16). Items, relating to frequency of lunching or dining together and talking about various matters, were each gauged on a four-point scale ranging from 1 (fairly often) to 4 (rarely). Within dyads, the correlation between superior and subordinate ratings of social distance was significant  $(r = .43, p \le .001)$ .

Superiors evaluated subordinate job performance along five dimensions with an instrument developed by Flanagan, Gorham, Lichtenstein, and Marchese (10) which is reported on by Gorham and Lichtenstein (11). The five dimensions are (a) improving patients' adjustment to hospitalization or illness—explaining condition or treatment, helping the patient in relieving emotional tensions, and teaching patient self-care; (b) promoting patients' comfort and hygiene—providing physical care; (c) contributing to medical treatment of patient—carrying out medical orders, initiating medical procedures, reporting on patients' condition, and using and checking operation of apparatus; (d) arranging management details—scheduling patients' treatments, directing the work of nonprofessional personnel, maintaining general supplies, referring patients to nonmedical sources, and supervising visitors; and (e) personal characteristics—behaving in a warm, friendly, and professional manner.

Subordinate overall job satisfaction was measured by the Brayfield and Rothe (5) Job Satisfaction Index (JSI). The psychometric characteristics of the JSI are favorably evaluated by Robinson, Athanasiou, and Head (20).<sup>3</sup>

# C. RESULTS

Superior perceptions of power are seen to be unrelated to the superior's attributed causes of subordinate job behavior (r = .00). Perceptions of superior power and social distance from subordinate were significantly positively correlated  $(r = .21, p \le .05)$  as hypothesized. Superior perceptions of power were unrelated to three  $(\bar{r} = -.01)$  of the five dimensions of subordinate performance. Superior perceptions of power and the promotion of patients' comfort and hygiene dimension of subordinate performance were significantly negatively correlated  $(r = -.38, p \le .01)$  as hypothesized. Surprisingly, however, superior perceptions of power were significantly positively correlated  $(r = .28, p \le .05)$  with the personal characteristics dimension of subordinate performance.

<sup>&</sup>lt;sup>3</sup> A table presenting the means and variances for all variables, as well as intercorrelations between variables, is available from the first author upon request.

From the subordinate's perspective, the subordinate's perceptions of superior power were unrelated to the subordinate's own attributions (r = .06), reported social distance from superior (r = -.01), and job satisfaction (r = .17).

### D. DISCUSSION

It was found for the current sample of American hospital nurses that superiors who perceive themselves to be relatively powerful report a greater social distance from their subordinates than do those who see themselves as less powerful. This finding replicates that of Kipnis *et al.* (16). As was the case with Kipnis *et al.*'s finding, however, the current result indicates only a small portion of the variance in social distance is explained by the power variable. Thus, one must question the practical significance of the detected relationship. Further, both sets of findings obviously are limited to the cultural context in which they were found.

In general, the findings of Kipnis et al. (16) regarding the relationships between superior's perceptions of own power and (a) attributions regarding the causes of subordinate job behavior or (b) evaluations of subordinate's job performance were not replicated. Kipnis et al.'s measures of power, attribution, and performance were markedly different from those employed in the current study. For instance, Kipnis et al. used a five-item overall evaluation index to ascertain the housewives' judgments of their housemaids' performance. In the current study, five dimensions of nurse performance were evaluated with a 70-item scale of known psychometric quality (10). The failure fully to replicate the Kipnis et al. findings, therefore, may be due to methodological differences between the studies. Alternatively, however, it may be the case that the metamorphic effects of power are not as pervasive as is frequently assumed. Clearly, the conflict created by the current findings calls for additional attempted replications of the Kipnis et al. study.

From the subordinate's perspective, perceived superior power was shown not to be associated with subordinate attributions regarding own job behaviors, perceived social distance from superior, or job satisfaction. The measure of power used in the current study directly tapped whether or not the superior was exercising any form of power at all rather than gauging perceived extent of use of particular power bases. It is possible that measures of either reward and/or punitive power would have been individually related to the variables investigated. For example, several researchers have demonstrated that subordinate behavior can be successfully shaped

by superiors who appropriately manipulate rewarding-punishing conditions (cf. 1, 13, 18). The results of such studies coupled with the current findings suggest that investigators should consider both the type of power employed and the absolute extent of power used.

#### REFERENCES

- ADAMS, E. E. An analysis of changes in performance quality with operant conditioning procedures. J. Appl. Psychol., 1972, 56, 480-486.
- ALDAG, R. J., BRIEF, A. P., & WALLDEN, R. A. Some correlates of policemen's attitudes toward citizenry. Psychol. Rep., 1976, 39, 543-548.
- ASHOUR, A. S., & ENGLAND, G. Subordinate's assigned levels of discretion as a function of leader's personality and situational variables. J. Appl. Psychol., 1972, 56, 120-123.
- BERGER, L. S. Use of power, Machiavellianism, and involvement in a simulated industrial setting. Unpublished Doctoral dissertation, Temple University, Philadelphia, Pennsylvania, 1975.
- BRAYFIELD, A. H., & ROTHE, H. F. An index of job satisfaction. J. Appl. Psychol., 1951, 35, 307-311.
- BRIEF, A. P., & ALDAG, R. J. The intrinsic-extrinsic dichotomy: Toward conceptual clarity. Acad. Memt. Rev., 1977, 2, 496-500.
- CARTWRIGHT, D. A field theoretical conception of power. In D. Cartwright (Ed.), Studies ir Social Power. Ann Arbor, Mich.: Inst. for Social Research, 1959.
- 8. CRONBACH, L. J. Coefficient alpha and the internal structure of tests. *Psychometrika*, 1951. **16**, 297-334.
- DUTTON, D. G. Attribution of cause for opinion change and liking for audience members. J. Personal. & Soc. Psychol., 1973, 26, 208-216.
- FLANAGAN, J. C., GORHAM, W. A., LICHTENSTEIN, S., & MARCHESE, A. G. Specific Nursing Behaviors Related to Patient Care and Improvement. Washington, D.C.: Amer. Inst. for Res., 1959.
- GORHAM, W. A., & LICHTENSTEIN, S. Specific Nursing Behaviors Related to Patient Care and Improvement. Washington, D.C.: Amer. Inst. for Res., 1957.
- JACKSON, J. M. The organization and its communication problems. In H. J. Leavitt & L. R. Pondy (Eds.), Readings in Managerial Psychology. Chicago: Univ. Chicago Press. 1964
- KENNEDY, W. A., & WILLCUTT, H. C. Praise and blame as incentives. *Psychol. Bull.*, 1964, 62, 323-332.
- 14. KIPNIS, D. Does power corrupt? J. Personal. & Soc. Psychol., 1972, 24, 33-41.
- The powerholder, In J. T. Tedeschi (Ed.), Perspectives on Social Power. Chicago: Aldine, 1974.
- KIPNIS, D., CASTELL, P. J., GERGEN, M., & MAUCH, D. Metamorphic effects of power. J. Appl. Psychol., 1976, 61(2), 127-135.
- 17. NUNNALLY, J. C. Psychometric Theory. New York: McGraw-Hill, 1978.
- 18. OLDHAM, G. R. The motivational strategies used by supervisors: Relationships to effectiveness indicators. Organiz. Behav. & Hum. Perform., 1976, 15, 32-65.
- RAVEN, B. H., & KRUGLANSKI, A. W. Conflict and power. In P. Swinglie (Ed.), The Structure of Conflict. New York: Academic Press, 1970.
- ROBINSON, J. P., ATHANASIOU, R., & HEAD, K. B. Measures of Occupational Attitudes and Occupational Characteristics. Ann Arbor, Mich.: Inst. for Social Research, 1973.
- SOROKIN, P. A., & LUNDIN, W. A. Power and Morality: Who Shall Guard the Guardians? Boston, Mass.: Sargent, 1959.

- 22. STRICTLAND, L. H. Surveillance and trust. J. Personal., 1958, 26, 206-215.
- 23. ZANDER, A., COHEN, A. R., & STOTLAND, E. Power and relations among the professions. In D. Cartwright (Ed.), Studies in Social Power. Ann Arbor, Mich.: Inst. for Social Research, 1959.
- 24. ZIMBARDO, P. G., HANEY, C., BANKS, W. C., & JAFFE, D. The mind is a formidable prison. N.Y. Times Mag., April 8, 1973, Sec. 6, pp. 38-60.

College of Business Administration University of Iowa Iowa City, Iowa 52242