

## INDIVIDUAL NEED STATES AND THEIR INFLUENCE ON PERCEPTIONS OF LEADER BEHAVIOR

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ROBERT E. NIEBUHR  
ARTHUR G. BEDEIAN  
ACHILLES A. ARMENAKIS  
*Auburn University*

*A field study in a hospital's nursing service organization was conducted to investigate the relationship of subordinate personality characteristics with perceptions of leader behavior. Measures of four individual need states (independence, achievement, affiliation, power) were obtained from the subjects as well as their perceptions of leader behavior. The study found a number of significant relationships between subordinate personality characteristics and both instrumental and supportive leader behavior perceptions, the primary finding being that individuals strongly motivated toward self-goals (achievement, power, independence) rather than other-directed goals (affiliation) apparently perceive their leader to be less active, particularly with regard to instrumental supervisory behavior. The implications of these results are discussed with respect to the focus of future research regarding the influence of individual personality characteristics in behavioral studies.*

In their recent review of the leadership literature, Durand and Nord (1976) located only four studies (Evans, 1973; Haythorn *et al.*, 1956; Misumi and Seki, 1971; Pryer and Distefano, 1971) which have considered the influence of subordinate personality characteristics on perceived leader behavior. Results from these studies, including that of Durand and Nord, and a more recent work by Fox (1976), suggest that follower stress, authoritarianism, locus of control, and need for achievement influence the perceptions that individuals have of a leader's behavior. In discussing future directions of leadership theory, Schriesheim and Kerr (1977) argue that researchers should conceptualize leaders as perceived objects, recognizing that a possible source of variance in subordinate descriptions of leader behavior may result from differing perceptions of a leader's behavior, as well as from differing attributions of meaning to such perceived behaviors.

Another point of recent discussion in the leadership literature has been whether to average leader behavior descriptions across group members or to treat follower descriptions individually (Graen *et al.*, 1972; Fleishman, 1973; Hunt and Larson, 1975; Herold, 1977; Hunt *et al.*, 1977). Although there is merit in averaging individual descriptions of leader behavior to gain an overall impression of leadership style, Ilgen and Fujii (1976) warn that this pooling process for the purpose of convergence can mask significant differences among individual follower descriptions of leader behavior. This warning, together with the arguments of Schriesheim and Kerr, underscores the current lack of knowledge regarding the dyad linkage between the individual follower and leader and suggests the need to study antecedent variables (such as needs or drives) which might influence the perceptions of leader behavior.

### IMPORTANCE OF INDIVIDUAL MOTIVES

Much of motivation theory relating to the concept of needs or drives is historically rooted in the work of Murray (1937, 1938), who defined a need as an internal driving force which, when active, is likely to push thought and action in a particular direction. Although Murray's list of basic needs was generated from clinical experiences and observations rather than empirical research, it did provide behavioral researchers with a conceptual beginning for hypothesis testing. Out of approximately 40 basic needs identified by Murray, four have received particular attention from organizational researchers — need for achievement, need for affiliation, need for power, and need for independence. The first three needs, particularly need for achievement, have been extensively examined in studies by McClelland and Atkinson and their associates (Atkinson, 1958, 1964; McClelland *et al.*, 1953), while need for independence studies have built primarily upon the work begun by Vroom (1959, 1960).

#### NEED FOR INDEPENDENCE

While there are a number of studies which deal with the influence these motives have on behavior (*e.g.*, Atkinson and Raynor, 1974; McClelland and Steele, 1973; Abdel-Halim and Rowland, 1976), only a limited number examine how these needs affect follower attitudes toward leader behavior. In examining the relationship between participation and satisfaction with supervision, Abdel-Halim and Rowland (1976) found that those followers with a high or moderate need for independence had higher correlations between participation and satisfaction with supervision than those who had a low need for independence. This would thus suggest that high need for independence followers would desire more participative behaviors (both interaction-oriented and task-oriented) on the part of a leader than low need for independence followers and, in fact, because of this desire might perceive a leader's actual behavior to be less supportive than that perceived by low need for independence followers. Although the work on need for independence has been primarily concerned with participative leader behavior in decision-making situations, it should also be noted that studies by Beer (1966) and Herold (1974) found that need for independence acted as a moderator between other leader behaviors (*e.g.*, initiating structure and consideration) and satisfaction/motivation, although the moderating effect was compounded by other variables.

#### NEED FOR ACHIEVEMENT

Although need for achievement has been examined extensively with respect to its influence on individual performance and emergence of leadership in groups, only one study has inspected the relationship between need for achievement and perception of leader behavior. Misumi and Seki (1971) found that, although there were some differences in perceptions of leader behavior (performance-centered and maintenance-centered) depending on the strength of the follower's achievement motivation, these differences were not significant. It should be noted that this was an experimental study using female college students and may not indicate the strength of need for achievement as a moderator among organizational variables, as evidenced in non-leadership studies such as Steers and Spencer (1977).

#### NEED FOR AFFILIATION

Reviewing the studies on need for affiliation, Boyatzis (1973) concluded that this particular drive was related to an individual's sensitivity to his or her interpersonal environment, the relationship appearing to be curvilinear. A study by Harris (1969) found that individuals with a high need for affiliation

were not as productive as those with less affiliative needs when the climate of an organization was felt to exhibit a high degree of warmth and support. Harris concluded that these high need for affiliation individuals satisfied their needs with non-job oriented relationships. Wainer and Rubin (1969) also found a negative relationship between need for affiliation and company success in an investigation of research and development companies. Apparently, high need for affiliation individuals are more concerned with social approval than accomplishment of tasks, although Sorrentino (1974) suggests that these same individuals may be motivated to greater performance if social approval is made contingent upon good performance in a group situation. This conclusion is lent some support in a study by Forward (1967) which found that high need for affiliation individuals were more inclined to approve group standards than low need for affiliation individuals. Although there are no studies that deal with the influence of need for affiliation on the perception of leader behavior, it would appear that high need for affiliation followers would desire more support from their leader (both interaction-oriented and task-oriented) and thus perceive a leader's actual support behavior as less than that perceived by low need for affiliation followers.

#### NEED FOR POWER

Individuals with a high need for power desire to be considered important or to be recognized in some way, such as attempting to win arguments (Veroff, 1957). These individuals seek public approval by being judged superior to others. Litwin and Stringer (1968) contend that some amount of need for power may be a very important characteristic of those whose effectiveness demands a sustained effort to influence others. McClelland (1970) suggests that this need for influential power is ethically desirable and unlike the undesirable "face" of power which is Machiavellian and authoritarian, and seeks power over other human beings. It could be hypothesized that a high need for power follower would perceive any leader to be less of an influence on his or her own behavior than a low need for power follower would. Consequently, a follower's perceptions of a leader's interaction-supportive or task-supportive behaviors would likewise be lower than those of the low need for power individuals.

Based on the review of the literature discussed above, it appears clear that individual motives do affect perceptions of leader behavior. The purpose of this particular study was to examine the relation of perceptual differences regarding leader behavior with variations in motivation states among individual followers. The following hypotheses were investigated.

#### HYPOTHESES

1. Follower need for independence will be negatively correlated with perceptions of interaction-supportive and task-supportive leader behavior.
2. Follower need for achievement will be negatively correlated with perceptions of interaction-supportive and task-supportive leader behavior.
3. Follower need for affiliation will be negatively correlated with perceptions of interaction-supportive and task-supportive leader behavior.
4. Follower need for power will be negatively correlated with perceptions of interaction-supportive and task-supportive leader behavior.

#### METHOD

##### SUBJECTS

The sample comprised 202 respondents at a Veterans Administration hospital of 1100 beds. Participants included employees of from all five levels of the hospital's nursing service. Fifty-seven percent of the respondents were female and

all had completed high school, 36% reporting a college background. The mean age of the sample was 39, and the average length of service was 14 years.

#### RESEARCH INSTRUMENTS

All four personality characteristics — need for independence (autonomy), need for achievement, need for affiliation, and need for power (dominance) — were measured using Gough and Heilbrun's (1965) Adjective Check List (ACL). Subjects are requested to check as many of the 300 adjectives provided which they consider to be self-descriptive. The raw scores for each personality dimension were converted to standard scores to reduce the influence of social desirability and acquiescence. Gough and Heilbrun report test-retest reliabilities ranging from 0.33 to 0.84 for periods extending from 10 weeks to 5½ years, most of the reliabilities being above 0.70.

The leader behavior measures were obtained from the Survey of Organizations Questionnaire (Taylor and Bowers, 1972) which provides four leadership dimensions commonly referred to as the Michigan Four-Factor Scales (Bowers and Seashore, 1966) — support, interaction facilitation, goal emphasis, and work facilitation. Because of recent questions raised by Schriesheim and Kerr (1977) regarding the validity and reliability of the Four-Factor Scales (as well as the Ohio State LBDQ-Form XII instrument and the Least Preferred Co-worker Scale), the responses to the items comprising the leadership dimension were subjected to factor analysis. The results of the factor analysis suggested only one factor for all items rather than the conceptually established four dimensions comprising actual supervisory behavior. The details and results of this analysis have been presented in an earlier study by Armenakis *et al.* (1979).

#### PROCEDURE

Questionnaires were administered to subjects under controlled conditions in small groups. Confidentiality of results was stressed during administration of the questionnaire. Because of the hospital's staffing demands, and to assure maximum participation, the questionnaire administrations were conducted over a five-day period at times convenient to each of the hospital's three shifts.

#### RESULTS

Table 1 presents the zero-order intercorrelations among the four personality characteristics, and Table 2 provides the intercorrelations among the four leader behaviors. Most of the relationships between the personality characteristics are as would be predicted except for the rather high correlations between achievement and affiliation and between affiliation and power. Although there is a considerable degree of association among the four predictors, each, being meaningful within the conceptual framework of the study, was retained for further analyses.

TABLE 1: ZERO-ORDER INTERCORRELATIONS AMONG THE PERSONALITY CHARACTERISTICS

Personality Characteristic	Independence	Achievement	Affiliation	Power
Independence	1	0.35***	0.15*	0.54***
Achievement		1	0.80***	0.89***
Affiliation			1	0.64***
Power				1

\*  $p < 0.05$ ; \*\*\*  $p < 0.001$ .

TABLE 2: ZERO-ORDER INTERCORRELATIONS AMONG THE LEADER BEHAVIORS

<i>Leader Behavior</i>	<i>Support</i>	<i>Interaction Facilitation</i>	<i>Goal Emphasis</i>	<i>Work Facilitation</i>
Support	1	0.76***	0.71***	0.75***
Interaction facilitation		1	0.79***	0.81***
Goal emphasis			1	0.76***
Work facilitation				1

\*\*\*  $p < 0.001$ .

The data in Table 2 indicate an even greater degree of intercorrelation among the leader behavior variables, the coefficients being similar to those obtained by Taylor and Bowers (1972) and Larson and Allen (1976). Yunker and Hunt (1976) found that each of the Michigan scales had a low amount of unique variance (not shared with the other scales) and that the scores from any one scale were well predicted by a linear combination of the scores from the other three. Based on these and other items of evidence, Schriesheim and Kerr (1977) suggest a weakness in the construct validity of the four dimensions provided by the Michigan scales. As mentioned earlier, factor analysis using the current sample's data also suggested the need to examine a composite measure of "leadership activity" by combining the four scales into one dimension. Similar use of a composite measure for the Michigan scales has been indicated recently in several studies (Franklin, 1975a, b; Larson and Allen, 1976). The analysis of the sample data, consequently, includes not only the four conceptually defined leader behavior dimensions established for the Michigan Four Factor Scales, but this composite "leader activity" scale as well.

Correlational analysis was performed on the data to test the hypotheses regarding the relationship of personality characteristics with perceptions of leader behavior. Table 3 presents the zero-order correlations obtained from this analysis; these results indicate that 14 of the 20 relationships were significant at the 0.05 level or better. Although the  $r$  values do not result in a substantial amount of explained variance (highest  $r$  was 0.18), there is strong support for three of the hypotheses tested.

Table 3 indicates that four of the five correlations are significant for each set of relationships involving need for independence, need for achievement, and need for power. These results suggest that individuals highly motivated by these needs perceive their supervisors as less active in terms of both supportive and instrumental behavior. Only the hypothesis regarding the influence that need for affiliation has on perception of leader behavior is not well supported (only two of the five correlations are significant). Apparently, individuals with greater affiliation needs do not perceive a leader's behavior (particularly sup-

TABLE 3: ZERO-ORDER CORRELATIONS INDICATING RELATIONSHIPS BETWEEN PERSONALITY CHARACTERISTICS AND PERCEPTIONS OF LEADER BEHAVIOR

<i>Personality Characteristic</i>	<i>Leader Behavior</i>				
	<i>Support</i>	<i>Interaction Facilitation</i>	<i>Goal Emphasis</i>	<i>Work Facilitation</i>	<i>Composite: Leader Activity</i>
n-Independence	-0.10	-0.16**	-0.18**	-0.14*	-0.15*
n-Achievement	-0.08	-0.13*	-0.13*	-0.17**	-0.13*
n-Affiliation	-0.10	-0.07	-0.07	-0.17**	-0.11*
n-Power	-0.08	-0.13*	-0.15*	-0.14*	-0.13*

\*  $p < 0.05$ ; \*\*  $p < 0.01$ .

portive-type behavior) to be much different from that perceived by individuals with low affiliation needs.

Further examination of the data in Table 3 indicates that only three of the eight relationships between leader supportive behavior ("support" and "interaction facilitation") and the four personality characteristics are significant. On the other hand, seven of the eight relationships between leader instrumental behavior ("goal emphasis" and "work facilitation") and the personality characteristics do reach significance. Highly motivated individuals are often concerned with goal attainment and possibly feel that instrumental leader behaviors are more influential than supportive leader behaviors in assisting them in the attainment of these goals. Consequently, it might be that these individuals more often distort their perceptions of leader conduct when discussing these instrumental behaviors.

### DISCUSSION

The results from this study provide increased evidence that individual motives do relate to perceptions of leader behavior. Recognition of this perceptual distortion underscores the need for increased attention to examining individual leader-follower dyad relationships rather than simply averaging group member data in leader behavior surveys (Hunt *et al.*, 1977). These results also provide suggestion of relationships regarding motives that have not been previously researched with respect to perception of leader behaviours, *i.e.*, need for independence, need for affiliation, and need for power, as well as those which have been examined in earlier studies which yielded no strong conclusions, *i.e.*, need for achievement (Misumi and Seki, 1971).

In addition, these results also indicate that individuals strongly motivated toward *self-goals* (achievement, power, independence) rather than *other-directed goals* (affiliation) apparently perceive their leader to be less active, particularly with regard to instrumental supervisory behavior. This perceptual difference may be a result of their viewing these instrumental behaviors as necessary for the accomplishment of their *self-goals*, this need precipitating a distortion in the perception of the leader's instrumental behavior. Path-goal theory of leadership views the leader's function as a supplemental one in providing the rewards, guidance, and performance and reward path clarification to his or her subordinates, the theory intending "to explain the relationship between leader behavior and the motivations of subordinates" (House and Dessler, 1974, p. 30). Schriesheim and Kerr (1977) suggest that path-goal theory would predict that individuals with a high need for achievement would be more satisfied with superiors who exhibited instrumental leader behaviors. In extending this viewpoint, the results from this study suggest that, in fact, high need for achievement subordinates might very well perceive these instrumental behaviors to be less than desired, their perceptions of this type of supervisory action being less than those of low need for achievement subordinates. The interactions examined here between subordinate personality characteristics and perceptions of leader behavior may be even more important when expanding the scope of study to examine the number of other intervening and dependent variables suggested by path-goal theory and other contingency models of leader behavior. A recent study by Sheridan and Vrendenburgh (1979) found similar complex patterns in leader/member relationships due to several independent variables, leading the authors to conclude that "it is important to analyze the relative impact of different situational factors by examining a comprehensive set of situational variables in a single study rather than piecing together the findings of independent studies" (p. 18). One conclusion from the results of this study is the recognition of an apparent need to include measures of subordinate motivation when examining the attitudes and behavior of these individuals in the work environment.

This study also points to problems regarding the use of measuring instruments that may not provide strong independent constructs. Indeed, Korman (1974) has suggested that one of the reasons for the lack of significant findings between

personality variables and organizational-related criteria is that the measurement of these variables has not traditionally included constructs that are situationally defined and more relevant to organization and work-related environments.

The measurement of leader behavior has for some time been an active area of research, yet there is still considerable disagreement and concern with the existing instruments and measurement techniques (Schriesheim and Kerr, 1977; Feidler, 1977; Sims, 1978). Current research regarding new leader behavior constructs (Schriesheim, 1978; Yukl and Nemeroff, 1978) appears to be focusing on a wider range of leader behaviors and offers increased promise for scales that will yield dimensions providing greater validity for organization studies. Hopefully, new studies will involve a greater breadth of leader behaviors as well as the inclusion of other organizational variables in order to more fully examine the influence that motivations have upon attitudes and behavior in the work environment.

#### REFERENCES

- Abdel-Halim, A.; Rowland, K., 1976: Some personality determinants of the effects of participation: A further investigation. *Personnel Psychology*, 29: 41-55.
- Armenakis, A. A.; Bedeian, A. G.; Niebuhr, R. E., 1979: Planning for organizational intervention: The importance of existing social-psychological situations in organizational diagnosis. *Group & Organization Studies*, 4: 59-70.
- Atkinson, J. W. (Ed.), 1958: *Motives in Fantasy, Action, and Society*. Van Nostrand, Princeton.
- Atkinson, J. W., 1964: *An Introduction to Motivation*. Van Nostrand, Princeton.
- Atkinson, J. W.; Raynor, J. O. (Eds.), 1974: *Motivation and Achievement*. V. H. Winston, Washington.
- Beer, M., 1966: *Leadership Employee Needs, and Motivation*. Ohio State University Bureau of Business Research Monograph No. 129, Columbus.
- Bowers, D. G.; Seashore, S. E., 1966: Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly*, 11: 238-63.
- Boyatzis, R. E., 1973: Affiliation motivation. In D. C. McClelland and R. S. Steele (Eds.), *Human Motivation: A Book of Readings*. General Learning Press, Morristown, N.J.
- Durand, D. E.; Nord, W. R., 1976: Perceived leader behavior as a function of personality characteristics of supervisors and subordinates. *Academy of Management Journal*, 19: 427-38.
- Evans, M., 1973: Discussant's comments and general discussion of "A path-goal theory of leader effectiveness". In E. A. Fleishman and J. G. Hunt (Eds.), *Current Developments in the Study of Leadership*. Southern Illinois University Press, Carbondale.
- Feidler, F. E., 1977: A rejoinder to Schriesheim and Kerr's premature obituary of the contingency model. In J. G. Hunt and L. L. Larson (Eds.), *Leadership: The Cutting Edge*. Southern Illinois University Press, Carbondale.
- Fleishman, E. A., 1973: Overview. In E. A. Fleishman and J. G. Hunt (Eds.), *Current Developments in the Study of Leadership*. Southern Illinois University Press, Carbondale.
- Forward, J., 1967: *Group Achievement Motivation and Individual Motives to Achieve Success, to Avoid Failure, and to Seek Social Approval*. Unpublished doctoral dissertation, University of Maryland.
- Fox, W. M., 1976: An analysis of military leadership in a realistic field setting. *JSAS Catalog of Selected Documents in Psychology*, 6: Ms 1318.
- Franklin, J. L., 1975a: Down the organization: Influence processes across levels of hierarchy. *Administrative Science Quarterly*, 20: 153-64.
- 1975b: Relations among four social-psychological aspects of organizations. *Administrative Science Quarterly*, 20: 422-33.
- Gough, H. G.; Heilbrun, A. B., Jr., 1965: *The Adjective Check List Manual*. Consulting Psychologists Press, Palo Alto.

- Graen, G.; Dansereau, F.; Minami, T., 1972: Dysfunctional leadership styles. *Organizational Behavior and Human Performance*, 7: 216-36.
- Harris, H., 1969: *An Experimental Model of the Effectiveness of Project Management Offices*. Unpublished master's dissertation, M.I.T.
- Haythorn, W.; Couch, A.; Haefner, D.; Langham, P.; Carter, L., 1956: The effects of varying combinations of authoritarianism and egalitarian leaders and followers. *Journal of Abnormal and Social Psychology*, 53: 210-9.
- Herold, D. M., 1974: Interaction of subordinate and leader characteristics in moderating the consideration-satisfaction relationship. *Journal of Applied Psychology*, 59: 649-51.
- 1977: Two-way influence processes in leader-follower dyads. *Academy of Management Journal*, 20: 224-37.
- House, R. J.; Dessler, G., 1974: The path-goal theory of leadership: Some post hoc and a priori tests. In J. G. Hunt and L. L. Larson (Eds.), *Contingency Approaches to Leadership*. Southern Illinois University Press, Carbondale.
- Hunt, J. G.; Larson, L.L., 1975: We march to the beat of a different drummer: An overview. In J. G. Hunt and L. L. Larson (Eds.), *Leadership Frontiers*. Kent State University Press, Kent, Ohio.
- Hunt, J. G.; Osborn, R. N.; Schriesheim, C. A., 1977: Omissions and commissions in leadership research. Unpublished paper, Department of Business Administration, University of Texas at Arlington.
- Ilggen, D. R.; Fujii, D. S., 1976: An investigation of the validity of leader behavior descriptions obtained from subordinates. *Journal of Applied Psychology*, 61: 642-51.
- Korman, A. K., 1974: Contingency approaches to leadership: An overview. In J. G. Hunt and L. L. Larson (Eds.), *Contingency Approaches to Leadership*. Southern Illinois University Press, Carbondale.
- Larson, L. L.; Allen, A. E., 1976: The relationship of formal and peer leadership to job satisfaction. In A. F. Sikula and R. L. Hilgert (Eds.), *Midwest Academy of Management Proceedings*: 187-96.
- Litwin, G. H.; Stringer, R. A., Jr., 1968: *Motivation and Organization Climate*. Division of Research, Graduate School of Business Administration, Harvard University, Cambridge.
- McClelland, D. C., 1970: The two faces of power. *Journal of International Affairs*, 24: 29-47.
- McClelland, D. C.; Steele, R. S., 1973; *Human Motivation: A Book of Readings*. General Learning Press, Morristown, N.J.
- McClelland, D. C.; Atkinson, J. W.; Clark, R. A.; Lowell, E. L., 1953: *The Achievement Motive*. Appleton-Century-Crofts, New York.
- Misumi, J.; Seki, F., 1971: Effects of achievement motivation on the effectiveness of leadership patterns. *Administrative Science Quarterly*, 16: 51-9.
- Murray, H. A., 1937: Facts which support the concept of need or drive. *Journal of Psychology*, 3: 27-42.
- 1938: *Explorations in Personality*. Oxford University Press, New York.
- Pryer, M. W.; Distefano, M. K., 1971: Perceptions of leadership, job satisfaction, and internal-external control across three nursing levels. *Nursing Research*, 2: 534-7.
- Schriesheim, C. A., 1978: *Development, Validation, and Application of New Leadership Behavior and Expectancy Research Instruments*. Unpublished doctoral dissertation, Ohio State University, Columbus.
- Schriesheim, C. A.; Kerr, S., 1977: Theories and measures of leadership: A critical appraisal of current and future directions. In J. G. Hunt and L. L. Larson (Eds.), *Leadership: The Cutting Edge*. Southern Illinois University Press, Carbondale.
- Sheridan, J. E.; Vrendenburgh, D. J., 1979: Structural model of leadership influence in a hospital organization. *Academy of Management Journal*, 22: 6-21.
- Sims, H. P., Jr., 1978: Limits and extensions of questionnaires in tapping leader behavior. Paper presented at the Southern Illinois University Fifth Biennial Leadership Symposium, *Crosscurrents in Leadership* (October 4-6).

- Sorrentino, R.M., 1974: Extending theory of achievement motivation to the study of group processes. In J. W. Atkinson and J. O. Raynor (Eds.), *Motivation and Achievement*. V. H. Winston, Washington.
- Steers, R. M.; Spencer, D. G., 1977: The role of achievement motivation in job design. *Journal of Applied Psychology*, 62: 472-9.
- Taylor, J. C.; Bowers, D. G., 1972: *Survey of Organizations*. Institute for Social Research, University of Michigan, Ann Arbor.
- Veroff, J., 1957: Development and validation of a projective measure of power motivation. *Journal of Abnormal and Social Psychology*, 54: 1-8.
- Vroom, V. H., 1959: Some personality determinants of the effects of participation. *Journal of Abnormal and Social Psychology*, 59: 322-7.
- 1960: *Some Personality Determinants of the Effects of Participation*. Prentice-Hall, Englewood Cliffs, N.J.
- Wainer, H. A.; Rubin, I. M., 1969: Motivation of research and development entrepreneurs: Determinants of company success. *Journal of Applied Psychology*, 53: 178-84.
- Yukl, G. A.; Nemeroff, W. F., 1978: Identification and measurement of specific categories of leadership behavior: A progress report. Presented at the Southern Illinois University Fifth Biennial Leadership Symposium, *Cross-currents in Leadership* (October 4-6).
- Yunker, G. W.; Hunt, J. G., 1976: An empirical comparison of the Michigan four-factor and Ohio State LBDQ leadership scales. *Organizational Behavior and Human Performance*, 17: 45-65.

*Reprints of this paper are available from Robert E. Niebuhr, Department of Management, School of Business, Auburn University, AL 36849, U.S.A.*

