What We Know About Leadership

Effectiveness and Personality

Robert Hogan, Gordon J. Curphy, and Joyce Hogan

Although psychologists know a great deal about leadership, persons who make decisions about real leaders seem largely to ignore their accumulated wisdom. In an effort to make past research more accessible, interpretable, and relevant to decision makers, this article defines leadership and then answers nine questions that routinely come up when practical decisions are made about leadership (e.g., whom to appoint, how to evaluate them, when to terminate them).

ccording to the political scientists, the fundamental question in human affairs is "Who shall rule?" As psychologists—who are less infused with the spirit of realpolitik—we believe the question is "Who should rule?" The question must be answered during national elections, when CEOs are replaced, and when university presidents retire. The question concerns how to evaluate leadership potential. When it is answered incorrectly, teams lose, armies are defeated, economies dwindle, and nations fail.

In terms of the number of printed pages devoted to the subject, leadership appears to be one of the most important issues in applied psychology. Volumes appear on the topic every year, and a recent review lists over 7,000 books, articles, or presentations (Bass, 1990). However, the rules of psychological research are such that we tend to focus on narrowly defined issues. The result is that our research is primarily read by other psychologists. Although J. P. Campbell (1977) and Mintzberg (1982) recommended that researchers pay more attention to applications, what we know seems to have little impact on the people who actually make decisions about leadership. The gap between what we know and what leadership decision makers want to know may explain the popularity of such books as In Search of Excellence (Peters & Waterman, 1982), The Change Masters (Kanter, 1983), Leaders: The Strategies for Taking Charge (Bennis & Nanus, 1985), and The New Leaders (A. M. Morrison, 1992). These books are not intended to be scientific dissertations; rather, they offer practical suggestions about how to identify and evaluate leadership. To reduce the gap between researchers and the lay public, this article answers nine questions that psychologists are often asked by persons who must choose or evaluate leaders.

What is Leadership?

Various writers have argued that our evolutionary history makes us both selfish (Dawkins, 1976) and yet able to

identify with the welfare of our social unit—perhaps because individual survival sometimes depends on group survival (Eibl-Eibesfeld, 1989; J. Hogan, 1978). It is important to distinguish between a person's short-term and long-term self-interest; actions that promote the group also serve an individual's long-term welfare. History mournfully suggests, however, that without an external threat to their group, people largely pursue their short-term interests.

This article provides a context for understanding leadership. In our view, leadership involves persuading other people to set aside for a period of time their individual concerns and to pursue a common goal that is important for the responsibilities and welfare of a group. This definition is morally neutral. A Somali warlord who is trying to bring together a group of clansmen to control food supplies needs the same skills as an inner-city Chicago minister who is trying to bring together a group of parishioners to help the homeless.

Leadership is persuasion, not domination; persons who can require others to do their bidding because of their power are not leaders. Leadership only occurs when others willingly adopt, for a period of time, the goals of a group as their own. Thus, leadership concerns building cohesive and goal-oriented teams; there is a causal and definitional link between leadership and team performance.

What is it that leaders do? Beginning with the Ohio State studies in the 1940s and 1950s, several taxonomies of leadership behaviors have been proposed, including those by Borman and Brush (1993), Davis, Skube, Hellervik, Gebelein, and Sheard (1992), and Yukl, Wall, and Lepsinger (1990). They differ primarily in terms of their specificity. Yukl et al.'s list is the broadest; it identifies 14 categories of leader behavior, including planning and organizing, problem solving, clarifying, informing, monitoring, motivating, consulting, recognizing, supporting, managing conflict and team building, networking, delegating, developing and mentoring, and rewarding. Al-

Robert Hogan and Joyce Hogan, Department of Psychology, University of Tulsa. Gordon J. Curphy, Personnel Decisions, Inc., Minneapolis, MN.

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Correspondence concerning this article should be addressed to Robert Hogan, Department of Psychology, University of Tulsa, Tulsa, OK 74104. though these actions are required by persons ranging from first-line supervisors to CEOs, their relative importance differs by organizational level.

These taxonomies tell us what people in leadership positions typically do, and the various commercially available, multirater assessment instruments (e.g., Personnel Decisions, Inc., 1991) tell us about the degree to which a particular leader does these things. However, there is little published research concerning what effective leaders actually do. Effectiveness concerns judgments about a leader's impact on an organization's bottom line (i.e., the profitability of a business unit, the quality of services rendered, market share gained, or the win-loss record of a team). Indices of effectiveness are often hard to specify and frequently affected by factors beyond a leader's control. Nevertheless, effectiveness is the standard by which leaders should be judged; focusing on typical behaviors and ignoring effectiveness is an overarching problem in leadership research.

Does Leadership Matter?

In 1910, the Norwegians and the English engaged in a dramatic and highly publicized race to the South Pole. It was an epic contest, and the contrast between the performance of the Norwegian team led by Roald Amundsen and the English team led by Robert Falcon Scott provided a real-life study in leadership and team performance. Scott's incompetence cost him the race, his life, and the lives of three team members, although, as often happens when high-level leadership fails, the details were covered up for years (cf. Dixon, 1976).

The fact that Lincoln's army was inert until Ulysses S. Grant assumed command and that some coaches can move from team to team transforming losers into winners is, for most people, evidence that leadership matters. Psychologists, as researchers, are (properly) more skeptical; they often explain differences in effectiveness in terms of the factors in the "environment" in which a team operates. Perhaps because effectiveness is influenced by so many factors, there are only a handful of studies evaluating the impact of leadership on an organization's bottom line. Some of the best evidence we have concerns the performance of flight crews (Chidester, Helmreich, Gregorich, & Geis, 1991), military units (Curphy, 1991, 1993), U. S. presidents (House, Spangler, & Woycke, 1991), and Methodist ministers (Smith, Carson, & Alexander, 1984). These studies show that certain leader characteristics are associated with enhanced team performance—when the appropriate indices of effectiveness are studied.

There is a second and less direct way of answering the question "Does leadership matter?" At the historical level one might reflect on the horrific consequences of the leadership of Adolph Hitler in Germany from 1933 to 1945 and Joseph Stalin in Russia from 1927 to 1953. Millions of people suffered and died as a consequence of the megalomaniacal visions of these two flawed geniuses, and the baleful consequences of their rule persist even today.

A third way to decide whether leadership matters is to ask the consumers of leadership (i.e., a manager's direct reports). Several patterns of leadership behavior are associated with subordinates' performance and satisfaction (cf. Bass, 1990; Hughes, Ginnett, & Curphy, 1993; Yukl, 1989). Conversely, reactions to inept leadership include turnover, insubordination, industrial sabotage, and malingering. R. Hogan, Raskin, and Fazzini (1990) noted that organizational climate studies from the mid-1950s to the present routinely show that 60% to 75% of the employees in any organization—no matter when or where the survey was completed and no matter what occupational group was involved—report that the worst or most stressful aspect of their job is their immediate supervisor. Good leaders may put pressure on their people, but abusive and incompetent management create billions of dollars of lost productivity each year. Dixon's (1976) book, The Psychology of Military Incompetence, provides a graphic and almost unbearably painful account of the consequences of bad leadership in the military. Reactions to inept leadership can be extreme. In the spring of 1993 articles in several major newspapers (e.g., the New York Times, the Washington Post) noted that poor first-line supervision was associated with the deaths of numerous postal workers over the past decade.

To stimulate research on the topic of inept management, R. Hogan et al. (1990) proposed that the base rate for managerial incompetence in America is between 60% and 75%. DeVries (1992), in a fascinating brief review, estimated that for the past 10 years the failure rate among senior executives in corporate America has been at least 50%. Shipper and Wilson (1991), using data from 101 departments in a large southwestern hospital, reported that the base rate for incompetent management in that organization was 60%. Millikin-Davies (1992), using data from a large aerospace organization, estimated a 50% base rate. She gathered critical incidents of managerial incompetence, which she rank ordered in terms of frequency. The most common complaints from direct reports concerned (a) managers' unwillingness to exercise authority (e.g., "is reluctant to confront problems and conflict" "is not as self-confident as others"), which characterized 20% of the sample of 84 managers, and (b) managers tyrannizing their subordinates (e.g., "manages his/her employees too closely, breathes down their necks"; "treats employees as if they were stupid"), which characterized 16% of the sample.

In summary, a growing body of evidence supports the common sense belief that leadership matters. Consequently, psychologists need to better determine when, where, and how leadership affects organization effectiveness and help organizations choose better leaders.

How Are Leaders Chosen?

Psychologists have known for some time that measures of cognitive ability and normal personality, structured interviews, simulations, and assessment centers predict leadership success reasonably well (cf. Bass, 1990; Howard & Bray, 1990; Hughes et al., 1993; Sorcher, 1985; Yukl,

1989). Nonetheless, many organizations seem either unaware or reluctant to take advantage of these psychological selection services. As a result, first-line supervisors are often chosen from the workforce on the basis of their technical talent rather than their leadership skills. Examples include academic department chairs, petty officers in the military, sergeants in the protective services, and shop supervisors in manufacturing organizations. Typically, someone who is good at the activity of the unit is made a supervisor on the basis of his or her proficiency. As a consequence, the organization loses, for example, a good scholar or sailor and acquires a supervisor whose talent for management is unknown.

We believe that middle managers (e.g., academic deans) are often chosen from the ranks of first-line supervisors on the basis of likeability and perceived ability to work with senior management. This, however, is speculation; few data illuminate the topic. Nor is there much data available concerning how CEOs (e.g., university presidents) are chosen. In many cases, an executive search firm puts together a slate of candidates, each of whom seems to fit the corporate culture and seems acceptable to the key decision makers. A search committee—often composed of board members with limited experience in the business of the organization—interviews the candidates and makes a choice (cf. DeVries, 1992).

Why aren't psychologists more involved in the process of executive selection? There are several reasons: (a) Our empirical research is often so narrowly focused that it seems irrelevant; (b) we are so cautious about generalizing beyond our data that we seem to have nothing to say; (c) our services appear expensive to organizations who overlook the costs of making poor selection decisions; (d) we may lack sufficient status in an organization for our views to be considered; and (e) we often do not understand the political realities surrounding the selection.

How Should Leaders Be Evaluated?

We suggested earlier that the appropriate way to measure leadership is in terms of team, group, or organizational effectiveness. This criterion will always be contaminated; unexpected external events can disrupt the best efforts of anyone. Jimmy Carter's presidency was largely undone by an OPEC oil embargo and a riot in Iran, events over which Carter had no control. Nonetheless, we think team performance must always be kept in mind when one evaluates a person's leadership ability.

The literature on leadership effectiveness can be organized in terms of five categories of studies. In the first category, leaders are evaluated in terms of the actual performance of their team or organizational unit. Examples include studies by Chidester et al. (1991), Curphy (1993), House et al. (1991), and Smith et al. (1984).

In the second category, subordinates', peers', or supervisors' ratings are used to evaluate leaders. Examples include studies by Bass and Yammarino (1991), Bray (1982), Harris and Schaubroeck (1988), Hazucha (1991), and Nilsen and Campbell (1993). One implication of this research is that subordinates are often in a unique position

to evaluate leadership effectiveness. Sweetland's (1978) review of managerial productivity concluded that effective leadership and increased group output were a function of the interaction between managers and their subordinates. Murphy and Cleveland (1991) noted that the evaluation of a manager's performance depends, in part, on the relationships that the person has established with his or her subordinates. Hegarty (1974) found that university department chairs who received feedback from subordinates improved their performance, both as judged by subordinates and in comparison with control participants who received no subordinate evaluations. Similarly, Bernardin and Klatt (1985) found that managers who were involved in multirater appraisal systems received significantly higher mean effectiveness ratings than those who received no subordinate feedback. McEvoy and Beatty (1989) compared the predictive validity of subordinate evaluations with assessment center ratings and concluded that subordinate ratings were as effective (and less expensive) as assessment center data in forecasting managerial performance seven years later.

Because subordinates are in a unique position to judge leadership effectiveness, what leadership characteristics do they feel are most important? Research by D. P. Campbell (1991), Harris and Hogan (1992), and Lombardo, Ruderman, and McCauley (1988) indicates that a leader's credibility or trustworthiness may be the single most important factor in subordinates' judgments of his or her effectiveness. For example, Harris and Hogan asked subordinates (N = 301) to evaluate their managers (N = 301)= 49) using a 55-item questionnaire that assessed growth versus stagnation, interpersonal competence, managerial values, and technical competence. Subordinates also rated their managers for overall effectiveness. Each manager and his or her boss completed a parallel questionnaire. Subordinates' and bosses' evaluations of a target manager's performance were reasonably consistent (rs > .50). In addition, managers' self-ratings were uncorrelated with the ratings provided by the other groups; this is consistent with the meta-analytic results of Harris and Schaubroeck (1988). Perhaps most important, bosses' ratings of a manager's overall effectiveness were largely influenced by judgments of his or her technical competence (e.g., "Supervisor is a flexible and far-sighted problem solver"), whereas subordinates' ratings of a manager's overall effectiveness were largely influenced by judgments of integrity (e.g., "My supervisor has earned my trust"). Thus, although subordinates and bosses tend to agree in their evaluation of a manager's overall effectiveness, they also evaluate rather different aspects of that performance. Although subordinates' ratings will be to some degree contaminated by rating errors, research shows that these ratings also reflect some knowledge of a person's actual performance in a leadership role. For example, Shipper and Wilson (1991), using data provided by managers and their subordinates from 68 subunits of a large southwestern hospital, showed that subordinates' ratings of managerial effectiveness were correlated (rs between .22 and .46) with engineered standards of productivity. These findings provide strong support for the use of subordinates' evaluations of managerial effectiveness.

A third category of studies evaluates the leadership potential of strangers on the basis of their performance in interviews, simulations, assessment centers, or leaderless group discussions. Examples include studies by Albright, Kenny, and Malloy (1988), Howard and Bray (1990), and Lord, De Vader, and Allinger (1986). The leaderless group research provides virtually no information about effectiveness; rather, it tells us about what a person must do in order to be perceived, in the short term, as leaderlike. On the other hand, assessment center research often uses organizational advancement as a criterion, and it tells us about the characteristics related to getting ahead in large, complex organizations. In the AT&T Managerial Assessment Project, for example, subsequent management level was best predicted by assessment center ratings for need for advancement, general mental ability, written communication skills, overall communications skills, flexibility, creativity, and organizing and planning (Howard & Bray, 1990).

Fourth, self-ratings of leadership have also been used as evaluative criteria (Farh & Dobbins, 1989). The evidence is clear, however, that self-ratings tell us little about leader effectiveness. But there is a kind of manager who routinely over evaluates his or her performance, and that tendency is associated with poor leadership (Atwater & Yammarino, 1992; Nilsen & Campbell, 1993; Van Velsor, Taylor, & Leslie, 1992).

In the fifth category of research, effectiveness is defined by the low end of the continuum—by persons whose careers are in jeopardy or who have derailed. The fact that a person has been passed over for promotion or fired reflects an evaluation of his or her performance in a negative direction. Early research on derailment includes articles by Lombardo et al. (1988) and McCall and Lombardo (1983). Hellervik, Hazucha, and Schneider (1992), Peterson (1993), and Peterson and Hicks (1993) studied managers whose careers were in trouble, using a wide variety of assessment techniques, such as multirater assessment instruments and psychological tests, to identify different jeopardy and derailment factors. This research reveals managerial incompetence to be associated with untrustworthiness, over control, exploitation, micromanagement, irritability, unwillingness to use discipline, and an inability to make good staffing or business decisions (or both).

We can summarize this section as follows: The answer to the question "How should leaders be evaluated?" is "In terms of the performance of their teams." Realistically, the data needed to make this evaluation are often difficult to obtain or badly contaminated by external factors. Perhaps the best alternative is to ask subordinates, peers, and superiors to evaluate a leader. The empirical literature suggests that these sources of information are correlated; that the respondents tend to key on different aspects of a leader's performance; and that, taken together, these evaluations are moderately but significantly related to team performance (D. P. Campbell, 1991; Harris &

Hogan, 1992). Finally, because subordinates', peers', or bosses' ratings involve judgments about the frequency of certain behaviors, researchers typically find stronger links between personality and these ratings than between personality and indices of effectiveness.

Why Do We Choose So Many Flawed Leaders?

The 1992 U.S. presidential election is an example of how important leaders are often chosen. A group of candidates make public statements; the voters, aided by promptings from journalists, evaluate the leadership potential of the candidates and then chose one. The process involves estimating the leadership qualities of strangers. DeVries (1992) noted that, of all the methods available to chose senior executives, organizations overwhelmingly rely on search firm nominations, background checks, and interviews. The standardized and well-validated methods developed by psychologists are used in only a tiny fraction of cases. We believe the less valid methods continue to be used (in spite of what we know) because of the reasons cited earlier and because candidates for executive positions often refuse to submit to psychological assessment. The 50% failure rate among senior executives may well be the result of these widely used but invalid selection procedures. Again, the hiring problem typically involves evaluating the leadership potential of strangers.

There has been considerable research concerning the characteristics of persons who, in the absence of performance data, nonetheless seem leaderlike. This research fits nicely into two categories. These include (a) studies of the relation between personality and indices of emergent leadership, and (b) research on implicit leadership theory.

Emergent Leadership

Research on emergent leadership identifies the factors associated with someone being perceived as leaderlike when there is only limited information about that person's actual performance; this research is typically involves leaderless discussion groups. Stogdill (1948) reviewed research on personality and emergent leadership in a variety of unstructured groups. He concluded that measures of dominance, extraversion, sociability, ambition or achievement, responsibility, integrity, self-confidence, mood and emotional control, diplomacy, and cooperativeness were positively related to emergent leadership.

The personality descriptors identified in Stogdill's (1974) review easily map onto the big-five model of personality structure endorsed by many modern personality psychologists (cf. Digman, 1990; Goldberg, 1993; R. Hogan & Hogan, 1992; McCrae & Costa, 1987; Passini & Norman, 1966). This model holds that personality, from the view of an observer, can be described in terms of five broad dimensions—surgency, agreeableness, conscientiousness, emotional stability, and intellect—and it provides a common vocabulary for interpreting the results of personality research. In the past, this research was often

hard to interpret because different studies used different terminology. For example, the conscientiousness dimension has been called conformity (Fiske, 1949), prudence (R. Hogan & Hogan, 1992), constraint (Tellegen, 1982), will to achieve (Digman, 1990), and work (Peabody & Goldberg, 1989). These different terms refer to the same broad construct; similar trends for the other four personality dimensions can be found in the Appendix.

Returning to Stogdill's (1948) review, dominance, extraversion, and sociability reflect surgency; responsibility, achievement, and integrity fall into the conscientiousness dimension; self-confidence, mood, and emotional control are part of emotional stability; and diplomacy and cooperativeness resemble agreeableness. Mann (1959) reviewed 28 studies concerning the relation between personality and observer ratings of emergent leadership in small groups and essentially replicated Stogdill's (1948) findings.

More recent studies of personality and leadership emergence reached similar conclusions (Gough, 1990; J. Hogan, 1978; Kenny & Zaccaro, 1983; Lord et al., 1986; Rueb & Foti, 1990; Stogdill, 1974; Zaccaro, Foti, & Kenny, 1991). Gough (1984, 1990), for example, reported that the Dominance, Capacity for Status, Sociability, Social Presence (i.e., surgency), Self-Acceptance, Achievement via Independence (i.e., emotional stability), and Empathy (i.e., agreeableness) scales of the California Psychological Inventory (Gough, 1987) are significantly correlated with peer and staff ratings for emergent leadership in leaderless discussion groups. Lord et al. (1986) used meta-analysis to estimate the correlations between various personality traits and leadership emergence in the studies reviewed by Mann (1959) and 13 other studies. They reported that the "true" correlations between masculinityfemininity, dominance, extraversion-introversion, adjustment, conservatism (which correspond to surgency, emotional stability, and conscientiousness), and leadership emergence in small groups are r = .34, .13, .26, .24,and .22, respectively. Although the correlations tend to be low, many studies in this meta-analysis examined leadership emergence in a single situation, and these single situation ratings are necessarily less reliable than ratings from a variety of situations.

Looking across a number of leaderless discussion groups, Kenny and Zaccaro (1983) found that between 48% and 82% of the variance in leadership emergence rankings was due to personality. Ellis (1988), Rueb and Foti (1990), and Zaccaro et al. (1991) have shown that the ability to control one's expressive behaviors (i.e., selfmonitoring) is positively related to leadership emergence. Snyder's (1974) self-monitoring scale consists of three dimensions—concern for social appropriateness, sensitivity to social cues, and the ability to control one's behavior according to social cues (cf. Briggs, Cheek, & Buss, 1980)—and these dimensions correspond to the big-five dimensions of surgency, agreeableness, and emotional stability. In summary, this research reveals a fairly consistent association between high scores on the dimensions of surgency, agreeableness, and emotional stability and being perceived as leaderlike in a group with no appointed leader.

Assessment centers and employment interviews are often used to evaluate the leadership potential of strangers; data are sometimes gathered to determine the validity of these evaluations. Bray (1982), for example, reported that assessment center data were reasonably valid predictors of a person's promotion record at AT&T. The performance dimensions identified in the AT&T Managerial Assessment Project—need for advancement, behavior flexibility, creativity, organizing and planning, and so on—correspond to the dimensions of surgency, conscientiousness, emotional stability, and intellect.

These results suggest that the big-five model provides a convenient way to summarize both leaderless group discussion and assessment center research. The results also suggest that measures of surgency, agreeableness, conscientiousness, and emotional stability can be used to predict the leadership potential of strangers. Implicit leadership theory research also supports the utility of the big-five taxonomy.

Implicit Leadership Theory

The second line of research concerning how we evaluate the leadership potential of strangers is called implicit leadership theory. Starting with Hollander and Julian (1969), implicit leadership theory argues that people are seen as leaderlike to the degree that their characteristics (i.e., intelligence, personality, or values) match other peoples' preconceived notions of what leaders should be like. Eden and Leviathan (1975), Lord, Foti, and De Vader (1984), Rush, Thomas, and Lord (1977), and Weiss and Adler (1981) have shown that people do in fact have generalized ideas about leadership, and they use them to evaluate the leadership potential of strangers. Specifically, most people seem to regard intelligence, honesty, sociability, understanding, aggressiveness, verbal skills, determination, and industriousness as important aspects of leadership, regardless of the team task or situation. Note that these attributes can be organized using the big-five model.

To return, finally, to the question of this section, "Why do we choose so many flawed leaders?," the answer may be that search committees choose candidates not on the basis of established principles of personnel selection but on the basis of the principles that guide leadership emergence—namely, those candidates who seem most leaderlike are most likely to be anointed. The problem is that persons who seem leaderlike may not have the skills required to build and guide an effective team. The result is a leadership failure rate in the range of 50% to 60%.

How to Forecast Leadership?

In our judgment, the best way to forecast leadership is to use a combination of cognitive ability, personality, simulation, role play, and multirater assessment instruments and techniques. Although personality assessment is part of this, there is some disagreement as to whether personality measures on their own can predict leadership po-

tential. We believe that terminological confusions have obscured the usefulness of personality measures for assessing leadership potential and that the big-five model substantially enhances our ability to integrate this research.

Personality and Rated Leader Effectiveness

Several lines of evidence show that certain personality dimensions are consistently related to rated leadership effectiveness. The first evidence comes from Stogdill's (1974) review. Stogdill found that surgency (i.e., dominance, assertiveness, energy or activity level, speech fluency, sociability, and social participation), emotional stability (i.e., adjustment, emotional balance, independence, and self-confidence), conscientiousness (i.e., responsibility, achievement, initiative, personal integrity, and ethical conduct), and agreeableness (i.e., friendliness, social nearness, and support) were positively related to rated effectiveness. Stogdill (1974) did not organize his findings as we describe them; nonetheless, his findings support the idea that there is a relationship between personality and leadership.

Bentz (1985, 1987, 1990) reported similar findings from his research on executive selection at Sears. Using the Guilford-Martin Personality Inventory, Bentz (1985, 1990) noted that executives promoted to the highest levels at Sears were articulate and active (i.e., surgency), independent, self-confident, and emotionally balanced (i.e., emotional stability), and hard working and responsible (i.e., conscientiousness). The median multiple correlations between these dimensions and subordinates' ratings of operating efficiency, personal relations, satisfaction, financial rewards, and job conditions were about R = .50(Bentz, 1985). Bentz (1985) reported comparable multiple correlations between these personality factors and leaders' compensation, immediate and second-level superiors' ratings and rankings, and peer groups' ratings of effectiveness over a 21-year period.

Bray and Howard (1983) and associates reported similar findings with AT&T executives. Those personality traits that best predicted managerial advancement—and we assume that most of those who advanced were also effective—were the desire for advancement, energy–activity level, and the readiness to make decisions (i.e., surgency); resistance to stress and tolerance for uncertainty (i.e., emotional stability); inner work standards (i.e., conscientiousness); and range of interests (i.e., intellect; Bray, Campbell, & Grant, 1974; Bray & Howard, 1983; Howard & Bray, 1990).

Personality and Effective Team Performance

Two sets of studies illustrate the link between personality and team performance. The first concerns charismatic leadership. House (1977) used biographical materials to identify three themes in the careers of charismatic leaders. First, they have a vision that others find compelling; second, they are able to recruit a group of people who share that vision, and these people resemble a team; and third, by virtue of the relationships they develop with the team

members, such leaders are able to persuade them to work for and to support the vision.

Charismatic leaders can be quite effective; relative to noncharismatic leaders, they have substantially higher (a) promotion recommendations or performance appraisal ratings from superiors; (b) satisfaction, morale, or approval ratings from subordinates; (c) historians' ratings of greatness; or (d) levels of team performance (Avolio, Waldman, & Einstein, 1988; Bass, 1985; Bass, Avolio, & Goodheim, 1987; Bass & Yammarino, 1991; Conger & Kanungo, 1988; Curphy, 1991, 1993; House et al., 1991; Howell & Frost, 1988).

House et al. (1991) reported that charismatic U.S. presidents have strong needs for power and high energy levels and they are socially assertive (these themes resemble surgency) and achievement oriented (i.e., conscientiousness). Using self-ratings from the Adjective Checklist (Gough & Heilbrun, 1983) and subordinates' ratings for charisma, Ross and Offermann (1991) reported that charisma ratings are positively correlated with self-confidence and personal adjustment (i.e., emotional stability), feminine attributes and nurturance (i.e., agreeableness), and the need for change (i.e., intellect).

Foushee, Chidester, Helmreich, and their associates studied the personality measures that influence team performance—in this case, the performance of commercial airline flight crews (cf. Chidester et al., 1991; Foushee & Helmreich, 1988). This research is important because breakdowns in team performance are the primary cause of air transport accidents (Cooper, White, & Lauber, 1979). Chidester et al. showed that flight crew performance—defined in terms of the number and severity of the errors made by the crew—is significantly correlated with the personality of the captain. Crews with captains who were warm, friendly, self-confident, and able to stand up to pressure (i.e., agreeableness and emotional stability) made the fewest errors. Conversely, crews with captains who were arrogant, hostile, boastful, egotistical, passive aggressive, or dictatorial made the most errors. Despite these results, Chidester et al. pointed out that personality is not taken into account in the process of airline pilot selection.

Why Do Leaders Fail?

Leaders fail for a variety of reasons—product lines no longer interest customers, services are no longer required, and companies reorganize and downsize. Nevertheless, a number of leaders fail for personal rather than structural or economic reasons. They may be skilled in a particular area, such as accounting, engineering, or sales. They fail because they can no longer rely solely on their own skills and effort; that is, they have been promoted into positions that require them to work through others to be successful. Because they are unable to build a team, their management careers come to a halt. Derailment is curiously understudied given the frequency with which it occurs.

Bentz (1985) essentially founded modern derailment research while analyzing the correlates of executive performance at Sears. He reported that among the persons with the appropriate positive characteristics (i.e., intelligence, confidence, ambition), a subset failed. Bentz catalogued the themes associated with failure (e.g., playing politics, moodiness, dishonesty) and concluded that the failed executives had an overriding personality defect or character flaw that alienated their subordinates and prevented them from building a team.

Research on managerial incompetence at the Center for Creative Leadership and Personnel Decisions, Inc., has come to similar conclusions; many managers who are bright, hard-working, ambitious, and technically competent fail (or are in danger of failing) because they are perceived as arrogant, vindictive, untrustworthy, selfish, emotional, compulsive, overcontrolling, insensitive, abrasive, aloof, too ambitious, or unable to delegate or make decisions (Hazucha, 1991, Kaplan, Drath, & Kofodimos, 1991; Lombardo et al., 1988; McCall & Lombardo, 1983; Peterson & Hicks, 1993).

The big-five model reflects the "bright side" of personality. Effectiveness requires both the presence of these positive characteristics and the absence of what we call "dark side" characteristics—irritating tendencies that alienate subordinates and interfere with a person's ability to form a team. Research shows that these dark side characteristics are negatively related to ratings of team performance and that subordinates are almost always aware of them (Harris & Hogan, 1992). Nonetheless, they are hard to detect using interviews, assessment centers, or inventories of normal personality because they coexist with high levels of self-esteem and good social skills (Harris & Hogan, 1992). Because managers with dark side tendencies often do well in procedures that evaluate the leadership potential of strangers, their counterproductive tendencies will be apparent only after they have been on the job for some time.

Can dark side characteristics be changed? The best evidence here comes from an evaluation of the Individual Coaching for Effectiveness program at Personnel Decisions, Inc.—an intensive intervention that may last for a year. The program is designed for managers whose careers are in jeopardy. Reviewing the results for 370 candidates over a five-year period, Peterson (1993) and Peterson and Hicks (1993) reported that the majority of managers were able to change a number of targeted behaviors, and these behavioral changes were still in place six months after the training had ended. Many of these candidates had previously attended three- to five-day standardized leadership training programs, but these programs produced little behavioral change (Peterson, personal communication, November 18, 1993). These findings imply that many managers who are performing poorly can make the changes necessary to maintain their careers, but they need more intensive training than that found in most leadership development programs.

How Do Leaders Build Teams?

The key to a leader's effectiveness is his or her ability to build a team. Hallam and Campbell (1992) identified eight problems for leadership that affect team performance; six problems are task related and two involve team maintenance. On the task side, successful leaders communicate a clear mission or sense of purpose, identify available resources and talent, develop the talent, plan and organize, coordinate work activities, and acquire needed resources. On the maintenance side, they minimize and resolve conflicts among group members and they ensure that team members understand the team's goals, constraints, resources, and problems. These teambuilding tasks obviously overlap with the taxonomy of leader behaviors developed by Yukl et al. (1990).

We believe that a leader's personality has predictable effects on team performance. For example, leaders with higher surgency scores communicate more with their teams, which increases the possibility that the team understands its goal and the performance standards required to achieve it. Moreover, these leaders are better able to build alliances with people outside of the team, which allows them to secure necessary equipment and resources. Conscientiousness is related to being perceived as trustworthy, planful, and organized. Agreeableness is related to communication, trust, and morale. Emotional stability is associated with seeming steady under pressure, able to resolve conflicts, and to handle negative feedback, all of which promote team effectiveness. Thus, four of the five big-five personality dimensions are related to Hallam and Campbell's (1992) team building tasks and to Yukl's (1989) taxonomy of leader behaviors.

The discussion so far concerns the relationship between personality and leadership in general. But practitioners also know that leadership is relative to the group in question. Although there are few data available on this point, we suspect that two considerations are important. The first is the group's developmental history; the second concerns the major tasks the group performs.

One can speculate that the qualities needed to form a group may be different from those required to maintain it. Persons leading organizations in the start-up phase may be more effective if they have a credible and strategic vision of what the group can do. Such people will also need to withstand the discouragement associated with the inevitable failures in the start-up phase. On the other hand, successful leaders of established organizations will probably need to be more orderly, more ceremonial, more concerned about details, and less visionary. Thus, leaders with higher surgency, intellect, and emotional stability scores may be more successful in organizations developing new products or services, whereas leaders with higher conscientiousness scores may be more effective in organizations having established products, services, and procedures.

Leadership is also relative to the task of the group, but how should that relationship be conceptualized? Holland's (1985) theory of occupational types provides a clue. Holland proposed that people's interests, talents, abilities, values, and motives cluster in six broad types. Realistic types (e.g., engineers) are procedural, action oriented, and concrete. Investigative types (e.g., scientists) are abstract, original, and independent. Artistic types (e.g., painters,

writers, philosophers) are unconventional, nonconforming, and imaginative. Social types (e.g., teachers, clergy, personnel managers) are friendly, idealistic, and altruistic. Enterprising types (e.g., lawyers, politicians) are outgoing, assertive, and manipulative. Finally, conventional types (e.g., accountants, computer programmers) are conforming, practical, and conservative. Schneider (1987) proposed that the culture of an organization depends on the Holland types of the senior management, that people will join organizations whose activities and values are consistent with their own preferences, and that they leave organizations whose culture is inconsistent with their preferences.

Moving to the level of the work group, R. Hogan and his associates (Driskell, Hogan, & Salas, 1987; R. Hogan, Raza, & Driskell, 1988) showed that teams can be classified in terms of their primary tasks using the Holland model. Realistic and conventional groups (e.g., athletic teams, police departments) respond to task-oriented and authoritative leadership and resent participatory management, which they see as weak. Enterprising and social groups (e.g., management teams, school faculties) respond to process, interaction, and participation and resent task-oriented leadership, which they see as authoritarian. In our view, the familiar Fleishman and Harris (1962) leadership typology of initiating structure versus consideration only applies to realistic, conventional, enterprising, and social groups; we know little about the leadership style that is best suited for artistic and investigative groups (e.g., theater companies, research teams)—meaning, we know little about the process of managing creativity.

What About Leadership in Workforce 2000?

Historically, the typical American worker has been a White man with a high school education employed in a manufacturing (i.e., realistic and conventional) job. Our models of leadership largely focus on how to lead that kind of person in those kinds of jobs in those kinds of organizations. All of the projections suggest, however, that the economy will shift from manufacturing to service (i.e., more social and artistic) jobs and that the workforce will become older, less well trained, more diverse, and more female (Hamilton, 1988; Johnston & Packer, 1987; Offermann & Gowing, 1990). For example, "Only 15 percent of the new entrants to the labor force over the next 13 years will be native white males, compared to 47 percent in that category today" (Johnston & Packer, 1987, p. xiii). The labor market for skilled workers will tighten, and there will be increased competition for talented personnel: "The fastest-growing jobs will be in professional, technical, and sales fields requiring the highest education and skill levels" (Johnston & Packer, 1987, p. xxi). As organizations shrink, fewer middle managers will be needed, and the responsibilities of first-line managers will expand.

We see these trends as having five implications for leaders, organizations, and psychologists. First, because competition for talented employees will increase and because managerial responsibilities will expand, the overall quality of management will need to improve. Corporate failures are increasing—there were 57,000 failures in 1986 (Ropp, 1987)—and this may reflect the combination of incompetent management and changes in labor and market forces. If current estimates of the base rates of bad management are realistic, then organizations in which 60% of the managers are incompetent will likely be at a serious competitive disadvantage. Psychologists can help organizations by verifying estimates of the base rate of incompetent management, exploring the relationships between these estimates and organizational effectiveness. and by doing a better job informing organizations about our managerial selection, coaching, and promotion expertise.

Second, with an increased emphasis on productivity, we suspect that the performance of senior managers will be more closely scrutinized. Derailed managers are typically good at selling themselves upward in their organizations, but they are less successful when dealing with peers and subordinates; thus these groups have access to unique information. Consequently, if effectiveness becomes a criterion for managerial evaluation, then multiple perspective appraisals (e.g., those that include bosses', peers', and subordinates' ratings) may become more widespread. Psychologists have played a key role in the development and refinement of multirater assessment instruments, and they should play an equally important role in the adoption of these instruments in the future.

Third, management practices will have to change as we move toward a service economy and the workforce becomes more diverse—what is the best way to manage female and minority employees in social and artistic (service) organizations? Moreover, we will likely have the same percentages of women and minorities in management as are currently in the workforce. Are there significant gender or cultural differences in leadership style, and will these styles be more or less effective for building teams in tomorrow's organizations? These are questions that psychologists are uniquely qualified to answer.

Fourth, although psychologists know more about leadership than the public apparently recognizes or, indeed, than we are often willing to admit (cf. Meindl & Ehrlich, 1987), there is one aspect of leadership about which we know very little: how to manage creative talent. There is good reason to believe that successful organizations will increasingly rely on innovation and the development of new products and services—meaning, on the performance of their investigative and artistic teams. We understand something about the characteristics of individual creativity (Barron, 1965; Cronbach, 1984), but we know little about how to manage teams whose primary tasks are problem solving and the development of new knowledge, methods, and products (cf. J. D. Morrison, 1993). How to manage creativity is one of the most important problems of the future, and it is a problem to whose solution psychology can make an important contribution.

Fifth, given that personality measures can predict leadership effectiveness, how can psychologists best use this information? We recommend selecting personality predictors on the basis of job analysis results because measures chosen in this way have significantly higher correlations with performance (Tett, Jackson, & Rothstein 1991). Next, we recommend matching measures and criteria in terms of their specificity (Pulakos, Borman, & Hough, 1988). Although the big-five dimensions are useful for summarizing results, they are the wrong band width for many prediction problems; narrower measures of personality often yield higher validity coefficients (Cronbach, 1984; Hough, 1992; Shannon & Weaver, 1949). We also recommend screening candidates for dark side tendencies using measures of the Diagnostic and Statistical Manual of Mental Disorders, 3rd edition (DSM-III, Axis 2; American Psychiatric Association, 1980) personality disorders or using structured interviews with their direct reports. Finally, because bad managers often have exaggerated views of their talents, psychologists may want to use observers' ratings as predictors of leadership potential. Our first two recommendations often lead to correlations in the .20 to .40 range; observers' ratings lead to correlations in the .30 to .60 range (Curphy & Osten, 1993; Nilsen, 1992). Although these results are promising, considerably more research is needed here.

Finally, as a profession we need to recognize that we can improve the lives of the incumbents in many organizations (as well as productivity and organizational climate) by improving leadership selection. Nevertheless, organizations will not ask for our help if we continue to argue that there is no such thing as leadership; that leadership has little impact on group, team, and organizational effectiveness; or that personality and leadership are unrelated. Practitioners do not believe these behaviorist-inspired arguments, and we must get beyond them if we want to make an impact on important selection decisions.

REFERENCES

- Albright, L., Kenny, D. A., & Malloy, T. E. (1988). Consensus in personality judgments at zero-acquaintance. *Journal of Personality and Social Psychology*, 55, 387-395.
- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.
- Atwater, L. E., & Yammarino, F. J. (1992). Does self-other agreement on leadership perceptions moderate the validity of leadership and performance predictions? *Personnel Psychology*, 45, 141-164.
- Avolio, B. J., Waldman, D. A., & Einstein, W. O. (1988). Transformational leadership in a management game simulation. Group and Organizational Studies, 13, 59-80.
- Barron, F. (1965). The psychology of creativity. In *New directions in psychology II* (pp. 1-134). New York: Holt, Rinehart & Winston.
- Bass, B. M. (1985). Leadership and performance beyond expectations. New York: Free Press.
- Bass, B. M. (1990). Bass and Stogdill's handbook of leadership (3rd ed.). New York: Free Press.
- Bass, B. M., Avolio, B. J., & Goodheim, L. (1987). Biography and the assessment of transformational leadership at the world class level. *Journal of Management*, 13, 7-20.
- Bass, B. M., & Yammarino, F. J. (1991). Congruence of self and others' leadership ratings of naval officers for understanding successful performance. Applied Psychology: An International Review, 40, 437-454.

- Bennis, W. G., & Nanus, B. (1985). Leaders: The strategies for taking charge. New York: Harper & Row.
- Bentz, V. J. (1985, August). A view from the top: A thirty year perspective of research devoted to discovery, description, and prediction of executive behavior. Paper presented at the 93rd Annual Convention of the American Psychological Association, Los Angeles.
- Bentz, V. J. (1987, August). Contextual richness as a criterion consideration in personality research with executives. Paper presented at the 95th Annual Convention of the American Psychological Association, New York.
- Bentz, V. J. (1990). Contextual issues in predicting high-level leadership performance: Contextual richness as a criterion consideration in personality research with executives. In K. E. Clark & M. B. Clark (Eds.), Measures of leadership (pp. 131–143). West Orange, NJ: Leadership Library of America.
- Bernardin, H. J., & Klatt, L. A. (1985). Managerial appraisal systems: Has practice caught up to the state of the art? *Personnel Administrator*, 30, 79-86.
- Borgatta, E. F. (1964). The structure of personality characteristics. *Behavioral Science*, 12, 8-17.
- Borman, W. C., & Brush, D. H. (1993). More progress toward a taxonomy of managerial performance requirements. *Human Performance*, 6, 1–21
- Bray, D,W. (1982). The assessment center and the study of lives. American Psychologist, 37, 180–189.
- Bray, D. W., Campbell, R. J., & Grant, D. L. (1974). Formative years in business: A long-term AT&T study of managerial lives. New York: Wiley-Interscience.
- Bray, D. W., & Howard, A. (1983). The AT&T longitudinal studies of managers. In K. W. Schaie (Ed.), Longitudinal studies of adult psychological development (pp. 112-146). New York: Guilford.
- Briggs, S. R., Cheek, J. M., & Buss, A. H. (1980). An analysis of the self-monitoring scale. *Journal of Personality and Social Psychology*, 38, 679-686.
- Campbell, D. P. (1991). Manual for the Campbell Leadership Index. Minneapolis, MN: National Computer Systems.
- Campbell, J. P. (1977). The cutting edge of leadership: An overview. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 221–246). Carbondale: Southern Illinois University Press.
- Chidester, T. R., Helmreich, R. L., Gregorich, S. E., & Geis, C. E. (1991).
 Pilot personality and crew coordination. *International Journal of Aviation Psychology*, 1, 25-44.
- Conger, J. A., & Kanungo, R. N. (1988). Charismatic leadership: The elusive factor in organizational effectiveness. San Francisco: Jossey-Bass.
- Cooper, G. E., White, M. D., & Lauber, J. K. (Eds.). (1979). Resource management on the flight deck (NASA Conference Publication No. 2120; NTIS No. N80-22083). Moffett Field, CA: NASA—Ames Research Center.
- Cronbach, L. J. (1984). Essentials of psychological testing (4th ed.). San Francisco: Harper & Row.
- Curphy, G. J. (1991). An empirical investigation of Bass' (1985) theory of transformational and transactional leadership. Unpublished doctoral dissertation, University of Minnesota, Minneapolis.
- Curphy, G. J. (1993). An empirical investigation of the effects of transformational and transactional leadership on organizational climate, attrition, and performance. In K. E. Clark, M. B. Clark, & D. P. Campbell (Eds.), *Impact of leadership* (pp. 177-188). Greensboro, NC: Center for Creative Leadership.
- Curphy, G. J., & Osten K. D. (1993). Technical manual for the Leadership Development Survey (Tech. Rep. No. 93–14). Colorado Springs, CO: U. S. Air Force Academy.
- Davis, B. L., Skube, C. J., Hellervik, L. W., Gebelein, S. H., & Sheard, J. L. (1992). Successful manager's handbook: Development suggestions for today's managers. Minneapolis, MN: Personnel Decisions.
- Dawkins, R. (1976). The selfish gene. New York: Oxford University Press.
 DeVries, D. L. (1992). Executive selection: Advances but no progress.
 Issues & Observations, 12, 1-5.
- Digman, J. M. (1988). Classical theories of trait organization and the Big Five factors of personality. Paper presented at the 96th Annual Convention of the American Psychological Association, Atlanta, GE.

- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. In *Annual review of psychology* (Vol. 41, pp. 417-440). Palo Alto, CA: Annual Reviews.
- Dixon, N. F. (1976). On the psychology of military incompetence. London: Futura.
- Driskell, J. E., Hogan, R., & Salas, E. (1987). Personality and group performance. In C. Hendrick (Ed.), Personality and social psychology review (pp. 91-112). Beverly Hills, CA: Sage.
- Eden, D., & Leviathan, U. (1975). Implicit leadership theory as a determinant of the factor structure underlying supervisory behavior scales. *Journal of Applied Psychology*, 60, 736-741.
- Eibl-Eibesfeld, I. (1989). Human ethnology. Chicago: Aldine.
- Ellis, R. J. (1988). Self-monitoring and leadership emergence in groups. Personality and Social Psychology Bulletin, 14, 681-693.
- Eysenck, H. J. (1970). The structure of human personality (3rd ed.). London: Methuen.
- Farh, J. L., & Dobbins, G. H. (1989). Effects of self-esteem on leniency bias in self-reports of performance: A structural equation model. *Per-sonnel Psychology*, 42, 835–850.
- Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from different sources. *Journal of Abnormal and Social Psy*chology, 44, 329–344.
- Fleishman, E. A., & Harris, E. F. (1962). Patterns of leadership behavior related to employee grievances and turnover. *Personnel Psychology*, 15, 43-56.
- Foushee, H. C., & Helmreich, R. L. (1988). Group interaction and flight crew performance. In E. L. Weiner & D. C. Nagel (Eds.), *Human factors in aviation* (pp. 189-227). San Diego, CA: Academic Press.
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. American Psychologist, 48, 26-34.
- Gough, H. G. (1984). A managerial potential scale for the California Psychological Inventory. *Journal of Applied Psychology*, 69, 233–240. Gough, H. G. (1987). *California Psychological Inventory administrator's*
- guide. Palo Alto, CA: Consulting Psychologists Press.
- Gough, H. G. (1990). Testing for leadership with the California Psychological Inventory. In K. E. Clark & M. B. Clark (Eds.), Measures of leadership (pp. 355-379). West Orange, NJ: Leadership Library of America.
- Gough, H. G., & Heilbrun, A. B., Jr. (1983). The Adjective Checklist manual: 1983 edition. Palo Alto, CA: Consulting Psychologists Press.
- Guilford, J. P. (1975). Factors and factors of personality. Psychological Bulletin, 82, 802-814.
- Hallam, G. L., & Campbell, D. P. (1992, May). Selecting team members? Start with a theory of team effectiveness. Paper presented at the 7th Annual Meeting of the Society of Industrial and Organizational Psychology, Montreal, Quebec, Canada.
- Hamilton, M. H. (1988, July 10). Employing new tools to recruit workers. Washington Post, pp. H1, H3.
- Harris, G., & Hogan, J. (1992, April). Perceptions and personality correlates of managerial effectiveness. Paper presented at the 13th Annual Psychology in the Department of Defense Symposium, Colorado Springs, CO.
- Harris, M. M., & Schaubroeck, J. (1988). A meta-analysis of self-supervisor, self-peer, and peer-supervisor ratings. *Personnel Psychology*, 41, 43-62.
- Hazucha, J. F. (1991). Success, jeopardy, and performance: Contrasting managerial outcomes and their predictors. Unpublished doctoral dissertation, University of Minnesota, Minneapolis.
- Hegarty, W. H. (1974). Using subordinate ratings to elicit behavioral changes in supervisors. *Journal of Applied Psychology*, 59, 764-766.
- Hellervik, L. W., Hazucha, J. F., & Schneider, R. J. (1992). Behavior change: Models, methods, and a review of the evidence. In M. D. Dunnette & L. M. Hough (Eds.), Handbook of industrial and organizational psychology (2nd ed., Vol. 3). Palo Alto, CA: Consulting Psychologists Press.
- Hogan, J. (1978). Personological dynamics of leadership. *Journal of Research in Personality*, 12, 390–395.
- Hogan, R., & Hogan, J. (1992). Hogan Personality Inventory manual. Tulsa, OK: Hogan Assessment Systems.
- Hogan, R., Raskin, R., & Fazzini, D. (1990). The dark side of charisma. In K. E. Clark & M. B. Clark (Eds.), *Measures of leadership* (pp. 343-354). West Orange, NJ: Leadership Library of America.

- Hogan, R., Raza, S., & Driskell, J. E. (1988). Personality, team performance, and organizational context. In P. Whitney & R. B. Ochsman (Eds.), Psychology and productivity (pp. 93-103). New York: Plenum.
- Holland, J. L. (1985). Making vocational choices: A theory of careers. Englewood Cliffs, NJ: Prentice-Hall.
- Hollander, E. P., & Julian, J. W. (1969). Contemporary trends in the analysis of leadership processes. *Psychological Bulletin*, 71, 387-91.
- Hough, L. M. (1992). The "Big Five" personality variables-construct confusion: Description versus prediction. *Human Performance*, 5, 139– 155.
- House, R. J. (1977). A 1976 theory of charismatic leadership. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 189–207). Carbondale: Southern Illinois University Press.
- House, R. J., Spangler, W. D., & Woycke, J. (1991). Personality and charisma in the U. S. presidency: A psychological theory of leadership effectiveness. *Administrative Science Quarterly*, 36, 364-396.
- Howard, A., & Bray, D. W. (1990). Predictions of managerial success over long periods of time: Lessons for the Management Progress Study. In K. E. Clark & M. B. Clark (Eds.), Measures of leadership (pp. 113-130). West Orange, NJ: Leadership Library of America.
- Howell, J. M., & Frost, P. (1988). A laboratory study of charismatic leadership. Organizational Behavior and Human Decision Processes, 43, 243-269.
- Hughes, R. L., Ginnett, R. A., & Curphy, G. J. (1993). Leadership: Enhancing the lessons of experience. Homewood, IL: Irwin.
- Johnston, W. B, & Packer, A. H. (1987). Workforce 2000. Indianapolis, IN: Hudson Institute.
- Kanter, R. M. (1983). The change masters. New York: Simon & Schuster. Kaplan, R. E., Drath, W. H., & Kofodimos, J. R. (1991). Beyond ambition: How driven managers can lead better and live better. San Francisco: Jossey-Bass.
- Kenny, D. A., & Zaccaro, S. J. (1983). An estimate of variance due to traits in leadership. *Journal of Applied Psychology*, 68, 678-685.
- Lombardo, M. M., Ruderman, M. N., & McCauley, C. D. (1988). Explanations of success and derailment in upper-level management positions. *Journal of Business and Psychology*, 2, 199-216.
- Lord, R. G., De Vader, C. L., & Allinger, G. M. (1986). A meta-analysis of the relationship between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal* of Applied Psychology, 71, 402-410.
- Lord, R. G., Foti, R. J., & De Vader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. Organizational Behavior and Human Performance, 34, 343-378.
- Mann, R. D. (1959). A review of the relationships between personality and performance in small groups. *Psychological Bulletin*, 56, 241– 270.
- McCall, M. W., & Lombardo, M. M. (1983). Off the track: Why and how successful executives get derailed (Tech. Rep. No. 21). Greensboro, NC: Center for Creative Leadership.
- McClelland, D. C. (1975). Power: The inner experience. New York: Irvington.
- McClelland, D. C., & Burnham, D. (1976). Power is the great motivator. Harvard Business Review, 25, 159-166.
- McCrae, R. R., & Costa, P. T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.
- McEvoy, G. M., & Beatty, R. W. (1989). Assessment centers and subordinate appraisals of managers: A seven-year examination of predictive validity. *Personnel Psychology*, 42, 37-52.
- Meindl, J. R., & Ehrlich, S. B. (1987). The romance of leadership and the evaluation of organizational performance. Academy of Management Journal, 30, 91-109.
- Millikin-Davies, M. (1992). An exploration of flawed first-line supervision. Unpublished doctoral dissertation. University of Tulsa, Tulsa, OK.
- Mintzberg, H. (1982). If you're not serving Bill or Barbara, then you're not serving leadership. In J. G. Hunt, U. Sekaran, & C. A. Schriesheim (Eds.), Leadership beyond establishment views (pp. 239–259). Carbondale: Southern Illinois University Press.
- Morrison, A. M. (1992). The new leaders: Guidelines on leadership diversity in America. San Francisco: Jossey-Bass.

- Morrison, J. D. (1993). Group composition and creative performance. Unpublished doctoral dissertation, University of Tulsa, Tulsa, OK.
- Murphy, K. R., & Cleveland, J. N. (1991). Performance appraisal. Boston: Allyn & Bacon.
- Nilsen, D. (1992). Using observers' judgments for selection. In R. T. Hogan (Chair), The future of leadership selection. Symposium conducted at the 13th Biennial Psychology in the DoD Conference, U. S. Air Force Academy, Colorado Springs, CO.
- Nilsen D., & Campbell, D. P. (1993). Self-observer rating discrepancies: Once an overrater, always an overrater? *Human Resource Management*, 32, 265–281.
- Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structures in peer nomination personality ratings. *Journal of Abnormal and Social Psychology*, 66, 574–583.
- Offermann, L. R., & Gowing, M. K. (1990). Organizations of the future. American Psychologist, 45, 95-108.
- Passini, F. T., & Norman, W. T. (1966). A universal conception of personality structure? *Journal of Personality and Social Psychology*, 1, 44-49.
- Peabody, D., & Goldberg, L. R. (1989). Some determinants of factor structures from personality-trait descriptors. *Journal of Personality* and Social Psychology, 57, 552-567.
- Personnel Decisions, Inc. (1991). The PROFILOR. Minneapolis, MN:
- Peters, T. J., & Waterman, R. H. (1982). In search of excellence. New York: Harper & Row.
- Peterson, D. B. (1993). Measuring change: A psychometric approach to evaluating individual training outcomes. In V. Arnold (Chair), Innovations in training evaluation: New measures, new designs. Symposium conducted at the Eighth Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco.
- Peterson, D. B., & Hicks, M. D. (1993, May). How to get people to change. Workshop presented at the Eighth Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco.
- Pulakos, E. D., Borman, W. C., & Hough, L. M. (1988). Test validation for scientific understanding: Two demonstrations of an approach for studying predictor-criterion linkages. *Personnel Psychology*, 41, 703– 716.
- Ross, S. M., & Offermann, L. R. (1991, April). Transformational leaders: Measurement of personality attributes and work group performance. Paper presented at the Sixth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.
- Ropp, K. (1987, February). Restructuring: Survival of the fittest. Personnel Administrator, pp. 45–47.
- Rueb, J. D., & Foti, R. J. (1990, April). Traits, self-monitoring, and leadership emergence. Paper presented at the Fifth Annual Conference of the Society for Industrial and Organizational Psychology, Miami, FI.
- Rush, M. C., Thomas, J. C., & Lord, R. G. (1977). Implicit leadership theory: A potential threat to the internal validity of leader behavior questionnaires. *Organizational Behavior and Human Performance*, 20, 93-110.

- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437–453.
- Shannon, C., & Weaver, W. (1949). The mathematical theory of communication. Urbana: University of Illinois Press.
- Shipper, F., & Wilson, C. L. (1991, July). The impact of managerial behaviors on group performance, stress, and commitment. Paper presented at the Impact of Leadership Conference, Center for Creative Leadership, Colorado Springs, CO.
- Smith, J. E., Carson, K. P., & Alexander, R. A. (1984). Leadership: It can make a difference. Academy of Management Journal, 27, 765– 776.
- Sorcher, M. (1985). Predicting executive success: What it takes to make it in senior management. New York: Wiley.
- Snyder, M. (1974). The self-monitoring of expressive behavior. Journal of Personality and Social Psychology, 30, 526-537.
- Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Personality*, 25, 35-71.
- Stogdill, R. M. (1974). Handbook of leadership. New York: Free Press. Sweetland, J. (1978). Work in America Institute studies in productivity. Highlights of the literature: Managerial productivity. Scarsdale, NY: Work in America Institute.
- Tellegen, A. (1982). Brief manual for the Multidimensional Personality Questionnaire (mimeograph). (Available from A. Tellegen, Department of Psychology, University of Minnesota, Minneapolis, MN 55455)
- Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Truman & J. D. Maser (Eds.), Anxiety and anxiety disorders (pp. 681-706). New York: Erlbaum.
- Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. *Personnel Psychology*, 44, 703-742.
- Tupes, E. C., & Christal, R. E. (1961). Recurrent personality factors based on trait ratings (ASD-TR-61-96). Lackland Air Force Base, TX: Aeronautical Systems Division, Personnel Laboratory.
- Van Velsor, E., Taylor, S., & Leslie, J. B. (1992, August). Self/rater agreement, self-awareness and leadership effectiveness. Paper presented at the 100th Annual Convention of the American Psychological Association, Washington, DC.
- Weiss, H. M., & Adler, S. (1981). Cognitive complexity and the structure of implicit leadership theories. *Journal of Applied Psychology*, 66, 69–78
- Yukl, G. A. (1989). Leadership in organizations (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Yukl, G. A., Wall, S., & Lepsinger, R. (1990). Preliminary report on the validation of the management practices survey. In K. E. Clark & M. B. Clark (Eds.), Measures of leadership (pp. 223–238). West Orange, NJ: Leadership Library of America.
- Zaccaro, S. J., Foti, R. J., & Kenny, D. A. (1991). Self-monitoring and trait-based variance in leadership: An investigation of leader flexibility across multiple group situations. *Journal of Applied Psychology*, 76, 308-315.

APPENDIX

The Big Five Dimensions of Personality

Surgency

Surgency measures the degree to which an individual is sociable, gregarious, assertive, and leaderlike versus quiet, reserved, mannerly, and withdrawn. Some of the more common personality traits associated with this dimension include dominance, capacity for status, or social presence (Gough, 1987), the need for power (McClelland, 1975), sociability (R. Hogan & Hogan,

1992), surgency (Tupes & Christal, 1961), or assertiveness (Borgatta, 1964).

Emotional Stability

This dimension of personality concerns the extent to which individuals are calm, steady, cool, and self-confident versus anxious, insecure, worried, and emotional. Some of the personality traits associated with emotional stability include neuroticism (Eysenck, 1970; McCrae & Costa, 1987), emo-

tional stability (Guilford, 1975), negative affectivity (Tellegen, 1985), and affect (Peabody & Goldberg, 1989).

Conscientiousness

Conscientiousness differentiates individuals who are hardworking, persevering, organized, and responsible from those who are impulsive, irresponsive, undependable, and lazy. Personality traits categorized under this dimension include prudence and ambition (R. Hogan & Hogan, 1992), will to achieve (Digman, 1988), need for achievement (McClelland & Burnham, 1976), dependability (Tupes & Christal, 1961), constraint (Tellegen, 1985), and work (Peabody & Goldberg, 1989).

Agreeableness

Agreeableness measures the degree to which individuals are sympathetic, cooperative, good-natured, and warm

versus grumpy, unpleasant, disagreeable, and cold. Personality traits associated with this dimension include likeability (Borgatta, 1964; R. Hogan & Hogan, 1992), friendly compliance (Digman, 1988), need for affiliation (McClelland, 1975), and love (Peabody & Goldberg, 1989).

Intellectance

This dimension of personality concerns the extent to which an individual is imaginative, cultured, broad minded, and curious versus concrete minded, practical, and has narrow interests. Personality traits associated with this dimension include culture (Norman, 1963; Tupes & Christal, 1961) and openness to experience (McCrae & Costa, 1987).

Correction to Rotton et al. (1993)

The comment "Citation Impact, Rejection Rates, and Journal Value," by James Rotton, Mary Levitt, and Paul Foos (*American Psychologist*, 1993, Vol. 48, No. 8, pp. 911–912) contained the following errors:

In Table 1, the journal *Psychological Research* was listed twice, and the journals *Cognition* and *Child Study Journal* were omitted. This had no effect on the results of the statistical analyses because rejection rates were not available for these journals.

Also in Table 1, on page 911, the mean SSCI for applied journals should have been 1.17 (not 2.17), and on page 912, the mean SSCI for experimental journals should have been 1.51 (not 1.43).

On page 911, multiple rather than squared multiple correlations were reported for rejection rates: Area and type of journal explained 48% (not 69%) of variance in rejection rates. Also, the F ratio for predicting citations should have been F(9, 28) = 14.82 (not 14.57).