L

LABOR LAW

Labor or union law refers to the body of laws, regulations, and case law that governs unionization and collective bargaining in the workplace. It is distinguished from employment law, which deals with employment contracts, workplace discrimination, and other private legal issues. Most industrialized countries have enacted labor laws, but those laws may vary across countries or even within a country. Labor relations may be governed by both national and regional labor laws—in Canada, for example, there are provincial labor laws. This essay focuses on U.S. federal labor law governing labor relations in the private sector.

The National Labor Relations Act (NLRA) is the basic federal law that governs unionization and collective bargaining in the United States. Originally enacted in 1935, at which time it was also called the Wagner Act, the NLRA has undergone several significant amendments, most recently in 1974. The NLRA regulates labor relations in almost all private-sector businesses that participate in interstate commerce. The NLRA does not cover public employees (who are covered by state labor relations laws), agricultural employees, or employees of railroads and airlines. Labor relations in the latter industries are governed by the Railway Labor Act.

BASIC PRINCIPLES OF THE NLRA

The collective bargaining system established by the NLRA has five basic principles: (a) employee choice, (b) majority rule, (c) exclusive representation, (d) appropriate bargaining unit, and (e) labor and management determination of terms and conditions of employment. The principle of *employee choice* means that employees in an appropriate bargaining unit choose whether they wish to have a union represent them for collective bargaining purposes and, if so, which union. The principle of *majority rule* means that the employees' choice of representation is made by a majority of the employees in the bargaining unit. If a majority of the employees in the bargaining unit do not select representation, the employees in that unit cannot be represented by a union.

If a majority of the employees in the bargaining unit choose union representation, the principle of *exclusive representation* comes into play. Under this principle, the union selected by the majority of the employees in the bargaining unit represents all the employees in the unit, regardless of whether the employees support unionization. The employer, in turn, has a legal obligation to bargain with the union in good faith regarding the terms and conditions of employment for the represented employees.

The fourth principle is the *appropriate bargaining unit.* The selection process for unionization takes place among the employees in an appropriate bargaining unit. An appropriate bargaining unit is a grouping of employees who work for a single employer and have common employment interests. They may be employees who work in a company facility, an occupational group, a department, or a craft. Employees who have a community of interest have similar supervision, pay structures, tasks, hours of work responsibilities, and work location.

The fifth principle is *union and management determination of terms and conditions of employment*. The employer has an obligation to bargain in good faith with the union representing its employees, and the union has an obligation to bargain in good faith with the employer. Neither party has an obligation to agree, however. The terms and conditions of employment are determined by the parties' negotiations, which are influenced by the bargaining power of the parties, manifested in their use of economic weapons such as a strike, lockout, or employer replacement of strikers. The purpose of these economic weapons is to move the parties toward agreement, even if one party concedes. The law does require that the parties reduce an agreement to writing. An agreement in writing is generally enforced through a grievance procedure that ends in binding arbitration.

BASIC RIGHTS UNDER THE NLRA

The NLRA gives employees the right to bargain collectively; to form, join, and assist unions (called *labor organizations*); and to engage in concerted activity for other mutual aid or protection. Thus, the NLRA is not limited to employees' attempts to unionize; it also protects the rights of employees to refrain from any activities related to collective bargaining or unionization.

Only those who are considered employees for the purposes of the act may exercise their rights under the NLRA. Supervisors, managerial employees, independent contractors, persons whose jobs are related to an employer's labor relations function, and persons who are employed in industries that are not covered by the NLRA are not considered employees for the purposes of the NLRA.

ADMINISTRATION OF THE NLRA

The NLRA is administered by the National Labor Relations Board (NLRB), an administrative agency of the federal government. The NLRB consists of five members who serve staggered five-year terms. The NLRB members are nominated by the president and must be confirmed by the U.S. Senate. By the third year of a president's term, he or she will have appointed a majority of the board members. (There is a custom, however, that no more than three board members may be affiliated with one political party.) With its limited terms and appointment and confirmation

process, the NLRB is designed to be an agency that changes in its composition—and to some extent, its views on labor relations—with the changing political climate of the country.

The NLRB has two main functions: determining representation and preventing unfair labor practices. In its representation function, the board determines whether a unit of non-union employees wishes to be represented by a union. Upon a showing of substantial interest—generally demonstrated by at least 30% of the employees in a bargaining unit signing union authorization cards designating the union as their collective bargaining representative and presenting the cards to an NLRB regional office—the board will initiate its representation procedures. After resolving any disputes regarding the bargaining unit, representation is typically determined through a representation election. For example, from October 1, 2002, through September 30, 2003, the NLRB conducted 2,797 representation elections. Employees chose representation in 1,458 of those elections (52.1%) and did not choose representation in 1,339 elections (47.9%).

The board's second major function is to prevent unfair labor practices. An employer commits an unfair labor practice under the NLRA when it discriminates, interferes with, or coerces employees who attempt to exercise their rights under the NLRA or when it refuses to bargain with a union that represents its employees. Examples of unfair employer labor practices include the following:

- Discriminating in hiring, promotion, or discharge in order to discourage membership in any labor organization
- Retaliating against an employee for filing charges or testifying under the act
- Interfering with union affairs by sending a management representative to spy on worker organizing meetings
- Attempting to control a union by helping a certain candidate (favorable to management) win election to a union office
- Refusing to bargain in good faith by changing the terms or conditions of employment without employee input during the term of the collective bargaining agreement

A union commits an unfair labor practice when it refuses to bargain in good faith with management, discriminates against an employee who wishes to exercise his or her right to refrain from union activity,

or commits any one of several other types of offenses. Examples of unfair union labor practices include the following:

- Refusing to process a grievance because an employee has criticized union officers
- Threatening employees that they will lose their jobs unless they support the union's activities
- Fining employees who have validly resigned from the union for engaging in protected activity following their resignation
- Refusing referral or giving preference in a hiring hall on the basis of race or union activities

IMPLICATIONS FOR INDIVIDUALS AND ORGANIZATIONS

The NLRA and U.S. labor laws provide an extensive formal structure that ensures employees' right to engage in collective or concerted activity for the purpose of improving their conditions in the workplace. The NLRA also protects individual employees from being unduly coerced into engaging in concerted activity. Though the NLRA clearly outlines employees' individual and collective legal rights in the workplace, its impact on employees' actual workplace experiences is less clear. For example, although the NLRA formally provides workers a greater collective voice in workplace affairs, research shows that union workers report having less actual influence in their workplace than non-union workers.

The NLRA has important implications for the employment practices of both unionized and non-unionized employers in the private sector. Among unionized employers, collective bargaining agreements between an employer and a union commonly include a wide range of clauses that affect the employer's human resource practices, such as wages, benefits, hours of work, job security, discipline, arbitration, the permissible pool of employees eligible for promotion and transfer, training, and criteria for evaluating performance. The terms of collective bargaining agreements are subject to negotiation, but once they are agreed to, collective bargaining agreements create binding obligations that, if unilaterally disregarded by the employer, may result in an arbitration decision that is enforceable in court.

The NLRA's implications for employment practices in non-union workplaces, though less extensive, are still significant. For example, a non-union employer's workplace policy may violate the NLRA on its face or if it is applied discriminatorily against employees exercising their NLRA rights. As a result, when drafting workplace policies, instituting workplace practices, or deciding whether to discipline employees, non-union employers need to consider whether the policy, practice, or disciplinary action relates to a group activity of nonsupervisory employees concerning the terms and conditions of employment. If so, the employee activity may be considered a protected concerted activity. The NLRA has also been interpreted as constraining the use of employee involvement teams in non-union (and union) workplaces. Specifically, in designing and supporting employee involvement teams, employers must be careful to avoid the NLRA's prohibition against employer domination of, interference with, or assistance to labor organizations—that is, employee groups that deal with management regarding the terms and conditions of employment. For example, it would be legal for an employer to create teams to discuss productivity, but it would be illegal for such teams to discuss compensation linked to productivity because compensation is a term or condition of employment.

—*Richard N. Block and Mark V. Roehling*

See also Union Commitment; Unions

FURTHER READING

Block, R. N. (2003). Competitiveness and employment protection and creation: An overview of collective bargaining in the United States. In R. N. Block (Ed.), *Bargaining for competitiveness: Law, research, and case studies* (pp. 13–44). Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

Block, R. N., Beck, J., & Kruger, D. (1996). *Labor law, industrial relations, and employee choice: The state of the workplace in the 1990s.* Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

Gould, W. B. (2000). *Labored relations: Law, politics, and the NLRB—A memoir.* Cambridge: MIT Press.

Greenhouse, S. (2005, January 2). Labor board's detractors see a bias against workers. *New York Times*, p.12.

Hardin, P., & Higgins, J. E., Jr. (Eds.). (2001). *The developing labor law: The board, the courts, and the National Labor Relations Act* (4th ed.). Washington, DC: Bureau of National Affairs.

King, N. J. (2003). Labor law for managers of non-union employees in traditional and cyber workplaces. *American Business Law Journal, 40,* 827–883.

National Labor Relations Board. (2004). *68th Annual report.* Washington, DC: Government Printing Office.

LABOR UNIONS

See UNIONS

LATENT TRAIT THEORY

See ITEM RESPONSE THEORY

LAYOFFS

See DOWNSIZING

LEADER–MEMBER EXCHANGE THEORY

During the early 1970s, the generally accepted practice for studying leadership was to use an average leadership style—that is, asking subordinates to report on their manager's leadership style and then averaging their responses across the work unit. Leader–member exchange (LMX) theory, which originated as the vertical dyad linkage (VDL) model, offered a contrast to this approach by presenting a dyadic model of leadership. The VDL model demonstrated that it is not appropriate to assess a common managerial leadership style because managers have a different type of relationship with each of their subordinates.

From its origins in the VDL model, LMX theory evolved into a study of leadership relationships in the workplace. Its central assumption—that higher-quality LMX relationships are positively related to work outcomes—is supported by a substantial body of evidence. This theory addresses questions such as, what types of relationships do managers have with their subordinates? Do these different relationships have different effects on work outcomes? Why do these different types of relationships develop? How can we generate more effective leadership relationships in the workplace? Although LMX theory has opened the door to relational leadership approaches, empirical evidence of how leadership relationships develop and how LMX relationships fit within the larger networks of exchange is still lacking.

VERTICAL DYAD LINKAGE MODEL

The VDL model was developed from a longitudinal investigation of socialization processes among managers and subordinates. Researchers found that managers engage in different kinds of exchanges with their subordinates. These exchanges can be characterized based on the amount of negotiating latitude that managers grant to subordinates in determining their roles (i.e., role making). With a select group of subordinates, designated the *in-group*, supervisors develop leadership exchanges that involve greater negotiating latitude. These individuals communicate more frequently and are more closely involved with the supervisor. For the remainder of the subordinates, designated the *out-group*, interactions are formal and contractual and based on the job description—they are more like hired hands. These differences, researchers explain, are the result of the manager's need to have trusted assistants to help in the functioning of the work unit but limited resources to develop these assistants. In particular, because the in-group relationships require more time and social resources from the manager and because these resources are limited, the manager can maintain only a small number of in-group relationships.

LEADER–MEMBER EXCHANGE MODEL

As research in this area progressed throughout the 1980s, the model became known as *leader–member exchange*, and the focus shifted from work unit differentiation to the characteristics of dyadic leader–member relationships and their association with antecedents and work outcomes.

The Nature of LMX Relationships

A key focus of LMX research is describing the nature of the differentiated relationships. For example, LMX research describes relationships as being on a continuum from low- to medium- to high-quality leader–member exchange. Low-quality LMX relationships are typically based more on management than leadership (i.e., a stranger relationship). Moderate-quality relationships experience increased social exchange and sharing of information and resources compared with low-quality relationships (i.e., an acquaintance relationship). High-quality LMX is described as a mature partnership in which dyad members count on one another for loyalty and support. As

one moves from low to high relationship quality, the nature of the relationship progresses from contractual-based exchanges, limited trust, lack of mutual under-standing, and more formal communications at the low end to partnership exchanges, a high level of trust, shared respect and high understanding, and strong commitment and loyalty to one another at the high end.

Leader–member exchange theory also describes the underlying dimensions of these exchanges. Some researchers have identified the key dimensions, or currencies of exchange, as trust, respect, and obliga-tion, whereas other researchers have identified them as affect, contribution, loyalty, and professional respect. The quality of LMX is assessed using one of two measures: a one-dimensional measure, the LMX-7, and a multidimensional measure, the LMX-MDM, which assesses the dimensions of affect, contribution, loyalty, and professional respect.

Antecedents and Consequences

The focus on LMX relationships is important because of the positive association between LMX and work outcomes. The quality of LMX has been posi-tively associated with performance, job satisfaction, organizational citizenship behavior, organizational commitment, and perceived organizational support. Research has also examined the relationship between LMX and decision influence and found that high-LMX subordinates are allowed more latitude and more involvement with the supervisor in decision making. High-quality LMX is associated with less turnover and fewer retaliatory behaviors on the part of subordinates. Lower-quality relationships, on the other hand, may cause loss of motivation, less effec-tive communication, and reduced training and devel-opment opportunities for subordinates.

One of the more important consequences of LMX is that when relationship building is successful in forming high-quality LMX, leadership is generated in the form of incremental influence that individuals have with one another. This incremental influence motivates individuals to go above and beyond—to do more than they have to do (i.e., extrarole behavior). Hence, LMX can help unleash more capability in the workplace by generating more positive work atti-tudes combined with more willingness to contribute to workplace functioning.

Research on antecedents of LMX relationships address the question, what factors contribute to

higher- or lower-quality relationship development? Empirical work has examined the relationship of LMX to characteristics of the member (e.g., personal-ity, influence tactics, competence), characteristics of the leader (e.g., ability), relational characteristics (e.g., leader–member similarity), and the work environment (e.g., physical distance, time pressures). Research has also demonstrated that the effort put into relationship development is related to LMX, but only the other person's effort—that is, individuals who reported higher LMX also reported that the other dyad member contributed effort into relationship development.

LMX Relationship Development

At the heart of LMX theory is how high-quality LMX relationships develop. Relationships that are higher in quality are said to result from *role making*. Managers and subordinates engage in role making when they actively negotiate how their roles in the relationship and organization will be defined. Lower-quality relationships result from *role taking*. Role taking involves no negotiation but rather the accep-tance of formally defined roles as the basis of the relationship.

Role making is a process of reciprocity and social exchange. The core of role making is testing, which determines how relationships progress through the dif-ferent stages of development. In the early stages, when individuals are assessing and evaluating one another to determine the type of relationship that will develop, the testing processes may be considered *developmental testing*. In developmental testing, parties evaluate each other and each person keeps track of what he or she has done for the other and how it was reciprocated (i.e., scorekeeping). Once a relationship is established, test-ing changes from scorekeeping to *maintenance evalu-ation.* In this situation, testing is a boundary assessment in which individuals revert to active testing only when a boundary of the relationship is violated.

The concepts of LMX relationship building were formalized in the *leadership-making model*, which describes the reciprocity and social exchange founda-tions of LMX theory. Support for leadership-making predictions about reciprocity is offered by empirical work showing that lower-quality LMX relationships have higher immediacy of returns, higher equivalence of exchange, and more self-interest, whereas higher-quality relationships have lower immediacy of returns, lower equivalence of exchange, and mutual interest.

With the introduction of the leadership-making model, LMX theory abandoned its differentiation roots, suggesting that leadership comes from high-quality relationships and that in order to have more leadership, more high-quality relationships are needed. The leadership-making model moved the theory from a descriptive model (of work unit differentiation) to a more prescriptive model (of leadership making). This movement away from differentiation, in-groups, and out-groups allowed the theory to become a broader relational leadership theory grounded in social exchange rather than a supervisory leadership model. The theory now also considers other types of relationships that could generate leadership, including coworker exchange, team member exchange, and member–member exchange.

THE FUTURE OF LMX THEORY

Leader–member exchange theory continues to generate a significant body of research across many disciplines and fields of study. It has been shown to be a powerful construct in assessing dyadic interpersonal and relational aspects of the work environment; higher LMX is a strong predictor of positive attitudes and feelings about the workplace. Although LMX theory is rich in its description of relationship development, however, a critical area that requires empirical investigation is how effective work relationships are generated and how these relationships operate within the larger contexts and networks of exchange in organizations. Moreover, though early research on LMX used a variety of strong methodological approaches (field experiments, qualitative data, and longitudinal designs), more recent research has relied heavily on cross-sectional survey data. Researchers must continue to push the theorizing and strong methodologies that characterized LMX in its early development into relational leadership to achieve the full promise of LMX theory.

—*Mary Uhl-Bien*

See also Leadership and Supervision; Leadership Development

FURTHER READING

Dansereau, F., Graen, G. B., & Haga, W. (1975). A vertical dyad linkage approach to leadership in formal organizations. *Organizational Behavior and Human Performance, 13,* 46–78.

Graen, G. B., Novak, M., & Sommerkamp, P. (1982). The effects of leader–member exchange and job design on productivity and satisfaction: Testing a dual attachment model. *Organizational Behavior and Human Performance, 30,* 109–131.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader–member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly, 6*(2), 219–247.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader–member exchange: An empirical assessment through scale development. *Journal of Management, 24*(1), 43–72.

Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader–member exchange theory: The past and potential for the future. In G. R. Ferris & K. M. Rowland (Eds.), *Research in personnel and human resources management* (Vol. 15, pp. 47–119). Greenwich, CT: JAI Press.

Uhl-Bien, M., Graen, G. B., & Scandura, T. (2000). Implications of leader–member exchange (LMX) for strategic human resource management systems: Relationships as social capital for competitive advantage. In G. R. Ferris (Ed.), *Research in personnel and human resources management* (Vol. 18, pp. 137–185). Greenwich, CT: JAI Press.

LEADERSHIP AND SUPERVISION

Leadership is the process by which a leader influences another person or group and focuses the followers' behavior on a goal or outcome. Persuading a subordinate to clean up his or her work area could be seen as a form of leadership, as could convincing hundreds of people to volunteer for disaster relief work. Influencing people and focusing that influence toward a tangible outcome are fundamental components of the leadership process. Leadership can occur in a variety of settings, either formal or informal. In formal settings, such as business organizations, individuals may receive a formal job assignment in which they are expected to lead other organizational members. This formalized leadership role is often called *supervision*. Although leadership and supervision are similar, there are some significant differences between the two concepts.

LEADERSHIP VERSUS SUPERVISION

Leadership is an informal process that involves many people. In the process, one person attempts to

influence the others and to produce a change in the behavior of his or her followers. Leadership occurs any time one person influences another, and it can occur with or without a formal organization. If an individual is repeatedly successful at influencing others, that individual may eventually be perceived as a leader. Individuals who lead in one situation may not lead in another because tasks vary, as well as the individuals present in a specific group setting.

Supervision, on the other hand, involves a more formal relationship: One person is formally designated to supervise others, and that action is sanctioned by a formal organization. Supervision tends to have an administrative and rational focus, with the smooth and efficient operation of the formal organization as its defining feature. A supervisory role, once established, tends to perpetuate itself and is modified only by formal action. The leader of a group may change quickly, whereas a supervisor has a formally designated role that is fairly permanent. Part of what supervisors attempt to do is to lead people. So in actuality, leadership is a psychological process that can occur in the formalized role of supervision as well as in less formal settings. Thus, supervision occurs when someone who is formally designated and sanctioned by an organization attempts to influence (lead) others toward organizationally sanctioned goals.

EARLY LEADERSHIP RESEARCH

Although the concept of leadership has been around since people first began to organize themselves, the formal study of leadership is relatively new. Early attempts to investigate leadership focused on great leaders and their common characteristics. Though systematically identifying common characteristics was a good idea, the list of common leadership characteristics or traits quickly became too long to be of any practical value. Leaders were identified as more extraverted, social, talkative, original, intelligent, dominant, athletic, and healthy than the people they led, but those were only a few of the pertinent traits. As the list of traits became longer, the prospect of finding individuals with all or even most of the traits seemed remote. And for every trait that was identified, there were notable exceptions. For example, although Abraham Lincoln and George Washington, like many leaders, were taller than their followers, Napoleon and Joan of Arc were admittedly influential leaders who did not tower over others. The search for the key

characteristics of leadership was not particularly fruitful, and ultimately, research on leadership turned to different concerns.

LEADER POWER

Instead of focusing on the individual characteristics of leaders, some researchers turned their attention to the way that power helps people lead. The logic behind this approach is that leadership involves a process of influence, and power is the potential to influence. Thus, if we can understand the power that a leader uses, we can better understand how leaders influence and lead.

The types of power that leaders use can vary considerably. For example, leaders may influence their followers by offering rewards (*reward power*) or by threatening punishment (*coercive power*); these methods may be effective if the leader can control the followers' environment. In organizations in which leaders are anointed with formal authority, *legitimate power* can also be very influential. Military organizations, in which the legitimate power structure is made obvious by the rank system and its associated obligations, are the best examples. Two other kinds of power that are commonly identified are *referent power* and *expert power*. Referent power allows a leader to influence others because the followers identify strongly with or admire the leader, as in the case of a charismatic leader or a famous person. Finally, the expertise that an individual possesses in a particular field can influence people to follow him or her. This expert power tends to be situation specific, but it is valued highly when the expertise is pertinent. Reward, coercive, and legitimate power are typically associated with the roles that people have in formal organizations, whereas referent and expert power are clearly associated with the perceived strengths of particular individuals.

To lead, one must exercise an appropriate level of power and use different types of power to influence followers. For example, commercial airline pilots have great influence over their passengers because of their expert ability to fly the airplane and the legitimate authority that government agencies give pilots as aircraft commanders. Pilots have considerable power over passengers until both the pilot and the passengers leave the airplane, at which point they are all simply people trying to leave the airport. In this situation, the pilot no longer has power because both the pilot and

the passengers are citizens with no legitimate power over each other, and the pilot's expertise is no longer relevant. Understanding leadership from a power perspective is helpful, but many have found this approach wanting because power does not explain all of the complexities of leadership.

LEADER BEHAVIOR

Although leader power provides some insight into the leadership process, a different research approach developed as researchers began to systematically study how leaders behave. Instead of focusing on traits or the use of power, the behavior of leaders has become the focus of much scientific research on leadership. By systematically studying how leaders behave in a wide variety of situations, this approach has identified two primary leader behaviors that seem to have great influence on followers. These behaviors appear to be relatively independent of one another and relate to important outcomes such as group productivity and satisfaction. *Initiating structure*, or a focus on the task, and *consideration*, or a focus on relationships, have been identified as contributing most to effective leadership.

Initiating structure focuses on the leader's ability to provide structure to his or her subordinates so that tasks can be accomplished. A highly structuring leader makes assignments, sets goals, divides the labor, and clarifies the tasks to be done. The focus on task accomplishment is a fundamental concern for many groups. The second important behavior, consideration, includes being concerned for the welfare of followers, asking for followers' opinions, and encouraging two-way communication. This behavior focuses on the leader's ability to build relationships with followers.

Leaders who are highly focused on task accomplishment generally have more productive groups than leaders with lower task-related behavior. Leaders who focus on relationships and the people in the group generally have more satisfied followers than leaders who tend not to demonstrate relationship-oriented behavior. Although the empirical evidence does not always completely support the concept, leaders are encouraged to exhibit high levels of both task- and relationship-oriented behaviors.

SITUATIONAL LEADERSHIP THEORIES

Although the notion that ideal leaders should exhibit high levels of both task- and relationship-oriented behavior has been embraced by many, empirical research is only mildly supportive of this simple solution. Exceptions to the general rule are noteworthy: Sometimes groups do not need additional focus on the task, and in some instances, followers may be highly satisfied even when the leader pays little attention to relationships. Though having both a relationship and task orientation is probably a good general approach to leadership, differences in the situations in which leaders operate must also be considered. *Situational leadership theories* suggest that the type of leadership needed depends on situational variables such as the task, the followers, and existing relationships within the group.

For example, a group of well-educated and highly dedicated scientists would likely have markedly different leadership needs than a group of inexperienced and newly hired employees. The scientists likely understand their immediate task, monitor their own performance well, derive significant satisfaction from their work, and have very little need for supervision or leadership. Such a group could operate for a long period of time with little outside influence. In fact, in this situation, any attempt to lead could be viewed as micromanagement of a group that can function on its own. On the other hand, newly hired employees are likely working in unfamiliar territory; they need guidance on what they should be doing, have limited interest in the task at hand, and see little immediate connection between their present activities and long-term success, and they may derive little satisfaction directly from their work. In this case, the leader needs to provide structure for the task; he or she may also be a source of satisfaction by providing encouragement and by fostering positive relationships.

Based on these two situations, it seems obvious that effective leadership behavior varies across situations. Depending on the maturity level of the group and the task that is to be performed, different leader behaviors are likely to be effective. With a mature group of highly trained people who are intrinsically motivated, a low level of both task and relationship leadership is probably appropriate. Leaders who stay out of the way are likely to be seen as effective in this situation. For groups that lack clarity about what they are to do and are not intrinsically motivated by the immediate task, guidance, structure, support, and possibly a firm hand from a leader are likely to be effective. One group needs both significant task guidance and strong relationship support form the leader, whereas the other group needs very little in the way of

leadership. Thus, the effectiveness of leader behavior is dependent on the situation, and both the leader and situational variables must be considered.

IN-GROUP LEADERSHIP

Although it is tempting to look at leadership as a group-level phenomenon and assume that all people in a particular group have exactly the same relationship with their leader, this belief is probably an oversimplification. Leaders do, in fact, have a different relationship with each of their followers, and some followers are closer to and rewarded more frequently by their leader. These so-called insiders are privy to all that a close relationship brings—extra attention from the leader, tangible and intangible rewards, mentoring, and task assistance. Those who are not insiders may receive acceptable leadership but miss out on the extra benefits that a close relationship offers. Currently, considerable research focuses on the differences in the interactions between leaders and their individual followers.

TRANSACTIONAL LEADERSHIP

Current thinking about leadership in day-to-day interactions, or what is often called *transactional leadership*, holds that different leader behaviors will be effective depending on the situation. Generally, task-oriented leader behavior is needed and helpful when followers have need for additional information, guidance, and structure. Likewise, the extent to which the leader needs to develop and support relationships within the group depends on the existing cohesion of the group, the intrinsic motivation associated with the task, and general feelings of mutual support. The most effective leader behavior depends on what her or his group needs. Thus, an effective transactional leader needs to diagnose how much structure and how much leader support are needed and then deliver the desirable amount of each behavior. It must also be acknowledged that insiders may have qualitatively different relationships with their leader than those who are outsiders.

TRANSFORMATIONAL LEADERSHIP

A leader may be adept at providing appropriate support so that followers can respond to normal challenges, but many leaders also inspire and motivate followers to do more than meet immediate challenges.

The ability to energize or inspire people to pursue new goals and to focus on changing and improving the status quo is captured in the notion of *transformational leadership*. Transformational leaders clearly communicate their vision and inspire followers to create new ideas and make a real difference in their work. Transformational leaders move organizations and people to new levels of performance. Emerging research suggests that transformational leaders may have charismatic as well as other qualities.

SUMMARY

Leadership can dramatically affect the functioning and effectiveness of any organization. Current thinking on transactional leadership suggests that effective leaders adjust their task and relationship behavior to meet follower and situational needs. Effective transactional leaders help organizations run efficiently, but transformational leaders can also motivate people to attain higher levels of creativity and performance.

—*David Clark Gilmore*

See also Leadership Development

FURTHER READING

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research, and managerial applications.* New York: Free Press.

Bass, B. M. (1997). Does the transactional-transformational leadership paradigm transcend organizational boundaries? *American Psychologist, 52,* 130–139.

Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2002). *Leadership: Enhancing the lessons of experience.* New York: McGraw-Hill.

Yukl, G. (1998). *Leadership in organizations.* Upper Saddle River, NJ: Prentice Hall.

LEADERSHIP DEVELOPMENT

Leadership development refers to an individual's preparation for advancement to a level of major responsibility within an organization (chief executive officer, chief operating officer, vice president, managing director) and to the continuous learning of those who already occupy these positions. Preparation may begin early in a person's career through participation in education or training programs (e.g., a several-day

or weeklong program delivered at an organization's training center, a university, or a company that specializes in leadership development programs) and initial job experiences (positions and developmental job assignments). Top managers may identify lower-level managers who they believe have potential for advancement and place them in fast-track programs in which they are promoted rapidly as they move through a series of line and staff positions in different functions. Organizations may send high-potential managers to development programs that communicate the values and competencies the organization desires in its leaders and give participants a chance to experiment with new behaviors in training simulations or actual group projects. Overall, leadership development is an ongoing process that takes place throughout a manager's career regardless of the number of organizations he or she works for or the organizational level attained.

ORGANIZATIONAL PERSPECTIVE

Organizations need to create a pipeline of high-potential managers who are ready for advancement to higher-level positions in different functions. Although some executive positions may be filled from the outside, bringing new ideas and strategies, organizations also want leaders who have a history with the organization and understand its culture and operations. Moreover, advancement opportunities help to retain talented managers. Succession planning, a process that is closely related to leadership development, entails reviewing leadership talent, creating development plans for outstanding managers, anticipating vacancies, and sometimes deliberately creating positions as developmental experiences and promotional opportunities.

The nature of leadership development depends on the type of leader the organization desires. Organizations need to communicate the values that leaders are expected to promulgate (e.g., honesty, integrity, open communication, concern for employees' welfare and career development) and the competencies (skills and knowledge) that leaders need to be effective (e.g., ability to formulate and communicate a clear and compelling vision and strategy). These values and competencies are integrated into the design of leadership development programs as well as the criteria for executive selection and performance evaluation.

Organizations differ in their philosophies of leadership development. Some organizations believe that managers should be given every opportunity to prepare for future opportunities and advancement. Other organizations believe that leadership talent is fixed early in one's career, and therefore, young, talented managers need to be identified and given experiences that will help them understand the business. Some organizations believe that leaders need training and development for future career growth, whereas other organizations believe that leaders need to concentrate on improving their current performance, not preparing for an uncertain future. Some organizations develop generalists by moving managers from one function to another and between line and staff positions as they advance, assuming that talented managers can learn the technical aspects of any job and that leaders need broad exposure to all aspects of a business. Other organizations develop specialists by promoting effective managers to higher-level positions within functional areas. Some organizations want transformational leaders who will create innovations and new strategic directions, whereas other organizations want transactional leaders who will concentrate on operational efficiency and effectiveness. Many organizations use a combination of these approaches—for example, providing promotional opportunities within highly specialized fields while also offering career paths that develop generalists.

An organization's development philosophy needs to match the needs of the organization. For example, fast-growing companies in highly competitive environments with rapidly advancing technology are likely to need—and so will develop—innovative, flexible, visionary leaders. Companies that are in stable environments are likely to need and develop leaders who focus on continuous, incremental improvements in operations and financial performance. An organization's development philosophy is likely to have a lasting effect on its leaders. People who leave an organization in mid- or late career to lead another company are likely to bring that philosophy of development to the new firm. The effectiveness of that philosophy will depend on the needs of the new organization.

In some organizations, continuous learning is the hallmark of the organization's culture. Leaders at all levels regularly provide feedback and discuss performance-improvement opportunities (including corporate resources for learning) with subordinate managers. Managers are encouraged to be continuous learners—people who seek feedback, establish development plans for themselves, and carry out these

plans. From the organization's standpoint, this gives the company a competitive advantage in hiring and retaining talented leaders. From the leader's standpoint, this provides an opportunity to enrich one's life and expand one's career opportunities.

INDIVIDUAL PERSPECTIVE

Leaders need to take responsibility for their own development by taking advantage of resources provided by the employer. A generation ago, large corporations maintained parent-like control over the development of their future leaders, and the people who received the most attention and support—that is, those on the fast track who could do no wrong—were the ones who needed it the least. Given the frequency of corporate downsizings, mergers, and shifts in strategy, no job or career path is secure. In addition, managers in small firms cannot realistically expect the organization to provide substantial resources for development or rapid promotional opportunities. As a consequence, leaders, as well as those who aspire to be leaders, need to understand their own strengths and weaknesses, ask for feedback about their performance and potential, set development goals for themselves (ideally in consultation with higher-level managers), and seek out development activities.

Some leaders are more adept at taking responsibility for ongoing development than others. Continuous learners have a thirst for knowledge and skill development and a desire to use their newly acquired knowledge and skills. They learn for the sake of mastery, not merely for its instrumental value in attaining a promotion or salary increase. They experiment with new behaviors and look for unfamiliar job assignments that will expand their background. They welcome change, and they are not only mindful of the competencies they need to be successful today but also recognize that job requirements change and higher-level positions require different competencies. They observe leaders in positions to which they aspire and find situations that allow them to model these behaviors. People who do this well are likely to be identified as having leadership potential.

METHODS

Often, leadership development comprises a combination of approaches. Examples of developmental techniques include the following:

- Challenging jobs in a variety of functional areas. Developmental assignments can also be created without moving managers into new jobs. For example, a manager might be asked to handle negotiations with a customer, present a proposal to top management, launch a new program or product, supervise cost cutting, join a community board, or resolve a conflict among warring employees.
- Ongoing feedback discussions with one's supervisor, subordinates, or peers.
- Multisource or 360-degree feedback (performance ratings made by colleagues who have different perspectives); this is best used as a source of information for development, not to make decisions about people. A recent review of 24 longitudinal studies found that the impact of multisource feedback is, on average, positive but small. Improvement appears to be greatest among managers who initially overrate themselves, set goals for improvement, talk to others about their feedback, and participate in training or other development activities and those with high self-efficacy, low organizational cynicism, and a learning orientation.
- Executive coaching, whereby a consultant is hired to work with the leader, discuss feedback results, set developmental goals, and provide advice on handling difficult situations. Relatively few studies have considered the impact of executive coaching; preliminary evidence indicates that the effects appear to be positive (although, in some instances, small).
- Mentoring in which higher-level managers (not necessarily an immediate supervisor) provide guidance and pave the way for advancement. A recent meta-analysis (i.e., a statistical synthesis of studies) found that career mentoring generally enhances a variety of outcomes, such as job satisfaction, career satisfaction, expectations for advancement, compensation, and promotion.
- Role models from whom leaders learn informally by observing their behavior.
- Simulations of business games and experiential exercises that demonstrate emergent leadership, teamwork, and communication skills and provide participants with a chance to test their skills and try new behaviors.
- Assessment centers that combine a variety of simulations during which managers are observed and their competencies evaluated; these may be used to make decisions about people, such as who should be in a fast-track development program, or as a source of feedback for development and a developmental experience itself.
- Off-site leadership development programs, including university-based executive education, or other

off-site programs. Trends in executive education include a growing focus on customized programs, increased use of action learning, making participants responsible for action plans back at the workplace, support group and coaching help, and reliance on distance or Web-based learning.

- Short courses focused on specific topics, such as strategic planning, decision making, team leadership, conflict resolution, business ethics, or crisis management.
- Organizational programs that identify managers with leadership potential and send them to company-specific training that focuses on competencies desired by the organization (e.g., becoming a transformational leader who creates and communicates new vision and strategies); often, these programs give participants a chance to work in teams on real organizational problems (a technique called *workout* pioneered by General Electric).

ASSESSMENT OF LEADERSHIP DEVELOPMENT PROGRAMS

Leadership development programs should be evaluated to determine whether they are accomplishing what was intended. They address such questions as, are managers in a training program applying what they learned on the job, and is it having an impact on the performance of the managers' department? Does the organization have managers who are ready for promotion to higher-level positions? Is it better (faster, less expensive, of greater long-term value) to fill a leadership position from outside the organization or to promote from within and maintain a development program for aspiring leaders?

Assessment methods require deliberate planning and should be incorporated into the design of leadership development programs. This requires identifying the expected impact of the development program on the individual manager, the work group, and the department or organization. It is also important to determine the period of time over which the impact is expected to occur. It is usually important to examine the impact from multiple perspectives and for different stakeholders (e.g., participants, direct reports, peers, senior leaders). For example, immediately after the program, participants might be surveyed to determine how they intend to apply their learning and new competencies. Several months later, participants might be surveyed about whether they receive support when they attempt to apply their new competencies. Other stakeholders could then be asked to complete a

360-degree behavior-change survey about the participants. Several months later, stakeholders might be interviewed to determine what changes have occurred in the participants' work groups, and organizational data (e.g., customer satisfaction, climate surveys) could be examined to determine whether the organization has benefited. It is desirable to gather before-and-after indexes of performance. Control groups may be useful for comparing people who participated in a program with those who did not. Tracking systems can be used to determine whether managers who performed best in the development program have been promoted one or more years later. Assessment adds cost and takes time, but it is the only way to improve development programs and determine whether investments in leadership development are paying off. Two meta-analyses separated by 18 years (reviewing 70 and 83 studies, respectively) concluded that management and leadership development programs are, on average, effective across different content areas, training methods, and criteria. That is, practitioners can attain meaningful improvements in both knowledge and skills if sufficient up-front analysis is conducted to ensure that the right development programs are offered to the right leaders.

—James W. Smither and Manuel London

See also Assessment Center; Executive Selection; Performance Appraisal; Succession Planning

FURTHER READING

Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology, 89,* 127–136.

Collins, D. B., & Holton, E. F. (2004). The effectiveness of managerial leadership development programs: A meta-analysis of studies from 1982 to 2001. *Human Resource Development Quarterly, 15,* 217–248.

London, M., & Maurer, T. J. (2004). Leadership development: A diagnostic model for continuous learning in dynamic organizations. In J. Antonakis, A. T. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (pp. 222–246). Thousand Oaks, CA: Sage.

London, M., & Smither, J. W. (1999a). Career-related continuous learning: Defining the construct and mapping the process. *Research in Personnel and Human Resources Management, 17,* 81–121.

London, M., & Smither, J. W. (1999b). Empowered self-development and continuous learning. *Human Resource Management Journal, 38,* 3–16.

Martineau, J., & Hannum, K. (2004). *Evaluating the impact of leadership development: A professional guide.* Greensboro, NC: Center for Creative Leadership.

McCauley, C. D., & Van Velsor, E. (2003). *The Center for Creative Leadership handbook of leadership development.* San Francisco: Jossey-Bass.

Smither, J. W., London, M., & Reilly, R. R. (2005). Does performance improve following multisource feedback? A theoretical model, meta-analysis, and review of empirical findings. *Personnel Psychology, 58,* 33–66.

LEARNING ORGANIZATIONS

Simply put, a learning organization is one that is skilled at learning. However, since the concept rose to prominence during the 1990s, the precise nature of the learning and the characteristics of a learning organization have been the source of much debate. Many models have emerged, each describing different combinations of features that typify a learning organization and each assuming that these features lead to improved performance. The models vary in terms of their emphasis on who is learning (e.g., management as opposed to nonmanagement employees, individuals or groups as opposed to the organization as a whole); what is being learned (e.g., knowledge of competitors, new technologies, new job skills); how learning is taking place (e.g., activities for creating, sharing, storing, or applying new knowledge); and which factors influence learning (e.g., organizational structure, processes, culture, leadership).

Integrating the literature produces a more comprehensive definition: A learning organization is expert at generating, acquiring, transferring, and storing knowledge within and between individual, group, and organizational levels and applying new knowledge to change behavior. This concept has had enduring popularity among management communities. An overview of its key features will be provided, as well as a discussion of its criticisms—chiefly, its lack of theoretical coherence and generalizable empirical validation.

COMMON FEATURES OF LEARNING ORGANIZATION MODELS

A review of the literature indicates that many models share a number of features that are proposed to characterize a learning organization:

- **Continual individual development**—To utilize the full potential of individuals, the organization encourages all employees to regularly learn through a wide variety of methods, from traditional training courses to experiential work-based activities. Rewards and incentives, as well as resources, are provided to stimulate the development of employees and create a positive learning climate.

- **Teamwork**—Teams are seen as a fundamental learning unit, based on the belief that the whole is greater than the sum of the parts. Within the shared context of the team, individuals interact with each other to integrate information from different angles into a new collective perspective. This can be aided by team development activities.

- **Empowerment of leadership**—As opposed to traditional command-and-control modes, the role of management is seen as one of encouragement, facilitation, and direction of learning processes. Through empowerment and participative decision making, frontline employees are much more active in deciding how and what work is done.

- **Systematic approaches to knowledge processing**—Learning organizations are analytical and scientific in the way they deal with information and make decisions. For example, Chris Argyris proposes that managers should not only engage in single-loop learning (developing knowledge that helps to meet objectives) but also periodically engage in double-loop (questioning the setting of objectives) and deutero learning (questioning the organization's fundamental role). Peter Senge advocates the development of systems thinking, whereby management becomes aware of the long-term causes and effects of its decision making. Alternatively, Ikujiro Nonaka describes how important tacit knowledge contained within employees can be turned into explicit, articulated forms to be shared, interpreted, and internalized by the rest of the company. Periodic dialogue and reflections on experience should also be incorporated.

- **Flexible structures**—Rigid, bureaucratic organizational structures are thought to inhibit the flow of learning; therefore, flatter, less hierarchical forms with cross-functional links and decentralized decision making are considered preferable.

- **Awareness of the internal and external environment**—Constant monitoring of internal processes and outcomes is undertaken through activities such as employee opinion surveys and functional performance reviews. Furthermore, the organization needs to understand major external players such as customers, suppliers, and competitors. Initiatives such as conducting customer focus groups, undertaking

benchmarking visits, and forming alliances with partner organizations can help in this respect.

- **Effective internal knowledge-sharing mechanisms**—Knowledge flows easily throughout different parts of the organization so that best use can be made of it when needed. This can be enabled by having efficient and comprehensive communication networks, personnel rotation, and boundary-spanning roles. In addition to ensuring horizontal flows of knowledge across different sections of the organization, effective vertical sharing of information between management and employees is also necessary.

- **Strategic alignment**—To make the best use of learning for organizational value, learning organizations should ensure that strategies are both internally and externally aligned. External alignment refers to the fit between the overall strategy and current or anticipated market conditions, whereas internal alignment means that functional strategies (e.g., human resource management, marketing, production) are integrated and synergistically combine to help the organization achieve its overarching goals.

- **Change orientation**—A key feature of the learning organization is its willingness and ability to put knowledge into practice by modifying its strategy, policies, structure, and functional environment.

- **Shared vision**—To provide a sense of purpose and direct the multilevel learning efforts for optimal organizational benefit, a shared vision needs to be built among all members. The role of top management, therefore, is to create a genuine strategic and inspirational vision that will motivate all employees toward a common set of goals.

ISSUES

A learning organization is thought to be expert at generating, acquiring, transferring, storing, and applying knowledge at all levels. Much has been written about this concept, and it is worth contrasting it with the long-standing organizational learning domain from which it emerged. The field of organizational learning studies the processes by which organizations learn and tends to be academically driven, multidisciplinary, analytical, rigorous in methodology, and descriptive (portraying how things are). In contrast, the learning organization field is concerned with the form the organization should take. It is driven by practitioners, based on informal research methods, idealistic, action oriented, and prescriptive (portraying how things should be).

Although its concepts are useful, the learning organization field has been criticized for its lack of conceptual and theoretical coherence, difficulty of applicability, and relative paucity of generalizable empirical research. However, a growing body of research is now systematically developing measures to test the robustness of these models in terms of their construct reliability, validity, and link to organizational performance.

—Kamal S. Birdi

See also Group Development; High-Performance Organization Model; Organizational Change; Strategic Planning; Training

FURTHER READING

Bapuji, H., & Crossan, M. (2004). From questions to answers: Reviewing organizational learning research. *Management Learning, 35,* 397–417.

Dierkes, M., Berthoin-Antal, A., Child, C., & Nonaka, I. (Eds.). (2001). *Handbook of organizational learning and knowledge.* Oxford, UK: Oxford University Press.

Friedman, V. J., Lipshitz, R., & Popper, M. (2005). The mystification of organizational learning. *Journal of Management Inquiry, 14,* 19–30.

Örtenblad, A. (2004). The learning organization: Towards an integrated model. *The Learning Organization, 11,* 129–144.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday.

LEAST PREFERRED COWORKER THEORY

The least preferred coworker (LPC) theory, developed by Fred E. Fiedler, has been at the center of controversy almost since its inception. Called the *contingency theory* or the *contingency model* of leadership by Fiedler and his associates, the debate over its scientific validity and practical usefulness has sometimes been quite spirited. However, the rate of published theoretical and empirical research on LPC theory has slowed to a trickle as the field has shifted its focus to theories of transformational and charismatic leadership and as Fiedler and his colleagues have turned to work on cognitive resource theory, a derivative of LPC theory.

The LPC theory refers to the central variable of the model, a measure of the esteem in which the leader

holds his or her *least preferred coworker*. The leader of each work group included in a study completes an LPC questionnaire to measure the leader's leadership style and orientation. The leader is asked to think about all of the people with whom he or she has worked and to select one person who was the most difficult to work with—the least preferred coworker.

Next, the leader is asked to describe this person by placing an *X* in the appropriate location on a series of bipolar rating items, such as the sample shown below.

Friendly :__:__:__:__:__:__:__:__: Unfriendly
             8   7   6   5   4   3   2   1

Most of the rating items involve interpersonal aspects that are not directly related to job performance (e.g., warm–cold), but some are work related (e.g., cooperative–uncooperative). The leader's overall score on the LPC questionnaire is used to classify the leader as more concerned with work performance (leaders with low LPC scores) or more concerned with interpersonal relationships (leaders with high LPC scores). The LPC measure has been the subject of considerable scientific debate; some scholars have defended the measure and its interpretation, whereas others have attacked it (for a review of this literature, see Ayman, 2002).

The second variable in the model, *situational control*, reflects the leader's perception of his or her ability to influence the work group toward achieving its goals. This variable is measured by assessing three components of situational control from the leader's viewpoint. The first component is *leader–member relations*, the degree to which group members have positive social relationships with other group members and with the leader (the better the leader–member relations, the more the leader is able to influence the group toward high levels of task performance). The second component is *task structure*, which reflects the leader's ability to control task accomplishment through his or her use of knowledge and expertise. Finally, the last component is leader *position power*, a measure of the leader's ability to control his or her work group through the use of formal authority, rewards, and punishments (the higher or stronger the task structure and position power, the more the leader can influence the group toward task accomplishment).

These three elements are combined to obtain an overall measure of situational control by weighting leader–member relations as most important, task structure as the next most influential component, and position power as least important (the actual weights used are 4, 2, and 1, respectively). This combination process produces eight distinct situations, called *octants*, which differ according to the ability of leaders to exert influence or control over their work groups:

Octant	Leader–Member Relations	Task Structure	Position Power	Situational Control
1	Good	Structured	High	Strong
2	Good	Structured	Low	Strong
3	Good	Unstructured	High	Strong
4	Good	Unstructured	Low	Moderate
5	Poor	Structured	High	Moderate
6	Poor	Structured	Low	Moderate
7	Poor	Unstructured	High	Moderate
8	Poor	Unstructured	Low	Weak

According to the model and research conducted to date, low-LPC leaders have higher-performing work groups in the conditions of strong situational control (octants 1, 2, and 3) and in the condition of weak situational control (octant 8). High-LPC leaders, on the other hand, have higher-performing work groups in situations of moderate favorability (octants 4, 5, 6, and sometimes 7). Whether these research findings are trustworthy and why findings have conformed to this pattern have been argued for decades. However, the work of Peters, Hartke, and Pohlmann (1985), Schriesheim, Tepper, and Tetrault (1994), and Strube and Garcia (1981) indicates that the substantial weight of the accumulated evidence has been largely positive, and the basic structure of the model's proposed relationships seems generally well supported. This naturally raises the question, what does the model tell us we should do to enhance our leadership effectiveness or the leadership effectiveness of others?

PRACTICAL IMPLICATIONS OF THE LPC MODEL

Many books and articles have been written about the implications of the LPC model for leadership practice; probably the most useful for readers is Fiedler and Chemers's *Improving Leadership Effectiveness: The Leader Match Concept* (1984).

According to Fiedler and his colleagues, a leader's LPC score is akin to a basic aspect of his or her personality (e.g., assertiveness), and as such, it should

be relatively stable and difficult to change over the short run. Because the performance of the leader's work group is dictated by the match between the leader's LPC score and the degree of control that the situation affords the leader, leadership effectiveness is most easily enhanced by changing the situation rather than by trying to alter the leader's style.

This idea, called *leader match*, suggests that in order to improve a leader's effectiveness (measured by his or her group's performance), leaders should be relocated to situations that better match their LPC scores, or leaders' current situations should be modified to better match their LPC scores ("good" matches occur when low-LPC leaders are situated in octants 1, 2, 3, or 8 and when high-LPC leaders are situated in octants 4, 5, 6, and 7). Fiedler and Chemers offer suggestions about how changes in situational favorability may be effected in real organizations; readers who are interested in implementing the LPC model's approach are encouraged to read their work in detail. Arguments against using the leader match approach, presented by Schriesheim and Hosking (1978), should be considered as well.

—*Chester A. Schriesheim and Linda L. Neider*

See also Leader–Member Exchange Theory; Leadership and Supervision; Transformational and Transactional Leadership

FURTHER READING

Ayman, R. (2002). Contingency model of leadership effectiveness: Challenges and achievements. In L. L. Neider & C. A. Schriesheim (Eds.), *Research in management: Vol. 2. Leadership* (pp. 197–228). Greenwich, CT: Information Age.

Fiedler, F. E. (1977). A response to Schriesheim and Kerr's premature obituary of the contingency model. In J. G. Hunt & L. L. Larson (Eds.), *Leadership: The cutting edge* (pp. 45–51). Carbondale: Southern Illinois University Press.

Fiedler, F. E. (1978). The contingency model and the dynamics of the leadership process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 59–96). New York: Academic Press.

Fiedler, F. E. (1995). Cognitive resources and leadership performance. *Applied Psychology, 44,* 5–28.

Fiedler, F. E., & Chemers, M. M. (1974). *Leadership and effective management.* Glenview, IL: Scott, Foresman.

Fiedler, F. E., & Chemers, M. M. (1984). *Improving leadership effectiveness: The leader match concept.* New York: Wiley.

Fiedler, F. E., & Garcia, J. E. (1987). *New approaches to effective leadership: Cognitive resources and organizational performance*. New York: Wiley.

Peters, L. H., Hartke, D. D., & Pohlmann, J. F. (1985). Fiedler's contingency theory of leadership: An application of the meta-analysis procedures of Schmitt and Hunter. *Psychological Bulletin, 97,* 274–285.

Schriesheim, C. A., & Hosking, D. (1978). Review essay of Fiedler, F. E., Chemers, M. M., & Mahar, L. Improving leadership effectiveness: The leader match concept. *Administrative Science Quarterly, 23,* 496–505.

Schriesheim, C. A., Tepper, B. J., & Tetrault, L. A. (1994). Least preferred co-worker score, situational control, and leadership effectiveness: A meta-analysis of contingency model performance predictions. *Journal of Applied Psychology, 79,* 561–573.

Strube, M. J., & Garcia, J. E. (1981). A meta-analytical investigation of Fiedler's contingency model of leadership effectiveness. *Psychological Bulletin, 90,* 307–321.

LENS MODEL

The lens model originated in Egon Brunswik's concept of probabilistic functionalism, which is primarily a theory of perception. Brunswik was convinced that the methods of psychological research during the first half of the 20th century were wrongheaded, especially with regard to the "rule of one variable," which many held was the only way to do psychological science. He believed that an essential characteristic of behavior is vicarious functioning—that is, the achievement of organismic goals, either perceptual or instrumental, through a variety of means. The rule of one variable prevents the organism from exercising this fundamental characteristic, thus precluding valid knowledge of behavior.

The introduction of orthogonal, multivariate research designs such as ANOVA (analysis of variance) did not alleviate the problem. Brunswik argued that in order for a scientist to generalize to some population of situations, those situations must be sampled as carefully as people are sampled and must be similar to the situations for which the generalization is intended. Situations in the world are not orthogonally designed. Hence, ANOVA designs, Brunswik argued, are laboratory artifacts that do not permit generalizing beyond the laboratory. His solution was representative design, a solution embodied in the *lens model*.

PERCEPTION

The lens model was originally conceived as a perceptual analogy in which the distal stimulus is perceived by a person in terms of multiple cues that are imperfectly correlated with each other, each providing overlapping (i.e., correlated) information about the stimulus to be perceived. The distal stimulus is portrayed as having rays emanating from it that represent the cues. The lens collects the information and refocuses it so that the perceptual system probabilistically "achieves" the correct percept.

JUDGMENT

Kenneth Hammond brought Brunswik into mainstream psychology by applying his ideas to judgment. In a judgment context, the lens model is best described in terms of an approach called *judgment analysis*, which requires a substantial number of multi-attribute situations about which a person makes judgments. The purpose of judgment analysis is to understand the relationships between (a) the environment and the attributes, commonly called *cues*; (b) a person's cognitive system and the cues; and (c) the environment and judgment systems.

THE LENS MODEL

Consider a highly idealized example. Imagine a company that is interested in the validity of the hiring decisions of its personnel department. Fortuitously for the industrial/organizational (I/O) psychologist, for legal reasons, the last 100 applicants have all been hired irrespective of the personnel director's ratings, which were based on five factors, duly recorded. Hence, the judgment data are available for analysis. The company has a criterion for success, and the five factors are conceptualized as cues to both judgment and success. Regression analysis can be used to assess the contribution of the cues to successful prediction and the relationship of the cues to success on the job. The lens model, depicted in Figure 1, provides a rich tool for understanding.

The personnel manager's hiring judgments in the 100 cases are denoted by Y_s, and each case is represented by varying values on the seven cues (X_i). The criterion for each case is denoted by Y_e. The judgments and criterion values are assumed to be continuous, but in practice they can include binary or categorical cues as well. The 100 predictions of the linear regression models of the criterion and judge are denoted by Y'_e and Y'_s, respectively.
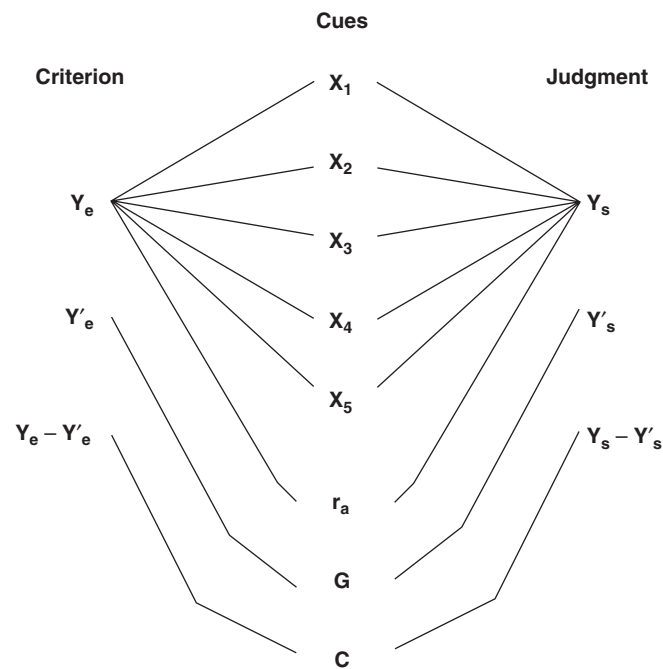

Figure 1   The Lens Model

SOURCE: Adapted from Cooksey (1996).

MODELING THE ENVIRONMENT AND THE JUDGE

The two sides of the lens are described in the same conceptual terms, instantiated by multiple regression. Policy capturing is performed on the data of the personnel director, or in lens model parlance, the *judge*. The multiple correlation, R_s, reflects the degree to which the person's judgments are predictable, assuming a linear, additive model. Ideally (barring the ever-present unreliability of judgment), it should be 1.0 unless the judge is validly using nonlinearities of function form, nonadditivities in the integration rule, or valid cues that are not in the equation (such as knowing that an otherwise poor applicant is the CEO's son). The variable R_e is determined by how well the cues predict the environment and how well the model has been specified. The cue-utilization coefficients (r_{is}) and ecological validities (r_{ie}) are zero-order correlations reflecting the importance of the cues to the judge and to success on the job, respectively.

RELATIONSHIP BETWEEN THE JUDGE AND THE ENVIRONMENT

The bottom line is whether the personnel manager can make valid predictions of job success. What I/O psychologists know as validity is called, in the jargon of the lens model, *achievement*, and it is reflected in the statistic r_a, the correlation between the 100 judgments and 100 criterion values. The degree to which r_{ie} and r_{is} are similar determines G, the zero-order correlation between the predicted values of the two linear models, which can be interpreted as the validity of the person's knowledge of the linear additive components of the environment. The C index, the zero-order correlation between the residuals from the two models, reflects the extent to which the unmodeled aspects of the person's knowledge matches unmodeled aspects of the environmental side of the lens.

Achievement is influenced by all of the foregoing variables. It is represented by the truly elegant formulation known as the *lens model equation*, or LME:

$$r_a = R_e R_s\, G + C\, [(1 - R_e^2)\, (1 - R_s^2)]\, 1/2.$$

With respect to the example, the LME says that the personnel director's ability to predict success on the job is completely determined by how well that success can be predicted from the available data (R_e), how consistently he or she uses the available data (R_s), and how well he or she understands what actually predicts success (G and C).

When it is applied to appropriate problems, lens model analysis provides remarkable insight (which may be limited by modeling assumptions) into the interrelations between the person and the environment. The foregoing model has been framed in terms of an individual's judgments, turning the usual sampling asymmetry on its head—we have one subject and many situations! If we wished to generalize across subjects, then we would sample subjects as well as situations, perform idiographic statistical analyses on each subject, then nomothetically aggregate the idiographic indexes.

Applications to industrial and organizational psychology abound. Whenever tasks call for one or more people to make judgments and criterion data are available, the lens model and LME are useful tools for discovery. Such tasks include performance assessment, employment interviewing, investment decisions, evaluation of discrimination charges, or assessment of the desirability of employment contracts. In other applications, the two sides of the lens may be two different people, and the LME could be used to explore similarities, differences, and conflicts. The LME indexes can also be used in cognitive feedback studies, wherein criterion weights can be fed back to subjects, who can then use the information to modify their judgment weights.

—Michael E. Doherty

See also Policy Capturing

FURTHER READING

Balzer, W. K., Doherty, M. E., & O'Connor, R. O. (1989). The effects of cognitive feedback on performance. *Psychological Bulletin, 106,* 410–433.

Cooksey, R. W. (1996). *Judgment analysis: Theory, methods, and applications.* San Diego: Academic Press.

Goldstein, W. M. (2004). Social judgment theory: Applying and extending Brunswik's probabilistic functionalism. In D. K. Koehler & N. Harvey (Eds.), *Blackwell handbook of judgment and decision making* (pp. 37–61). Malden, MA: Blackwell.

Hammond, K. R., & Stewart, T. R. (2001). *The essential Brunswik: Beginnings, explications, applications.* Oxford, UK: Oxford University Press.

Maniscalco, C., Doherty, M. E., & Ullman, D. G. (1980). Assessing discrimination: An application of social judgment technology. *Journal of Applied Psychology, 65,* 284–288.

LETTERS OF RECOMMENDATION

In psychology, there is a common belief that the best predictor of future performance is past performance. References and letters of recommendation are methods of predicting future performance by looking at past performance. More than 80% of organizations in the United States check references, and almost all colleges and universities ask for letters of recommendation when admitting students or hiring faculty.

DEFINITIONS

Reference check: The process of confirming the accuracy of information provided by an applicant.

Reference: The expression of an opinion, either orally or through a written checklist, regarding an applicant's ability, previous performance, work habits, character, or potential for future success. The content and format of the reference are determined by the person or organization asking for the reference.

Letter of recommendation: A letter expressing an opinion regarding an applicant's ability, previous performance, work habits, character, or potential for future success. The content and format of the letter of recommendation are determined by the letter writer.

REASONS FOR USING REFERENCES, REFERENCE CHECKS, AND RECOMMENDATION LETTERS
Confirming Details on a Résumé

It is not uncommon for applicants to engage in résumé fraud—that is, lying on their résumé about what experience or education they actually have. Employers find that about 25% of résumés contain false or misleading information. Thus, one reason to check references or ask for letters of recommendation is simply to confirm the truthfulness of the information provided by the applicant.

Predicting Future Performance

Organizations can use references and letters of recommendation to predict future performance. However, references and letters of recommendation are generally not good predictors of future employee success, as the average validity for references is only .18. Using structured approaches to creating references and scoring letters of recommendation may increase their validity. References from people who know the applicant well are better predictors of future performance than references from people who are not well acquainted with the applicant.

PROBLEMS WITH REFERENCES AND LETTERS OF RECOMMENDATION
Leniency

One reason that references and letters of recommendation are not good predictors of performance is that few references are negative. In fact, studies indicate that only 4% to 7% of references are average or negative. This leniency is not surprising, considering that most applicants select people who will be their reference providers.

Reference providers may also be lenient because they fear they will be the target of a defamation suit if they say negative things. A person providing references can be charged with defamation of character (slander if the reference was oral, libel if it was written) if the content of the reference is both untrue and made with malicious intent. This fear keeps many organizations from providing references at all. Those who do provide references often ask former employees to sign waivers giving their employer the right to provide information and future employers the right to ask for information.

Reliability

A second reason that letters and references are not good predictors of future performance is that two people providing references or writing letters for the same person seldom agree with one another. A meta-analysis of five studies found that the average reliability for references is only .22. In fact, research indicates there is more agreement between recommendations written by the same person for two different applicants than between two people writing recommendations for

the same person. Thus, letters of recommendation may say more about the person writing the letter than about the person for whom it is being written.

SEX AND RACE DIFFERENCES

References and letters of recommendation appear to be one of the few employee selection methods in which there are minimal sex and race differences. Though there is not a lot of research on the topic, existing studies indicate that men and women write similar types of letters and provide similar references. Furthermore, male and female applicants, as well as minority and nonminority applicants, are described similarly in recommendation letters. Thus, references and recommendation letters are not likely to result in high levels of adverse impact.

EVALUATING LETTERS OF RECOMMENDATION

Letters of recommendation usually contain some combination of the following components:

- An opening paragraph that describes the relationship between the letter writer and the applicant
- Descriptions and evaluations of the applicant's traits, skills, and character
- Descriptions of the applicant's work, academic, or research responsibilities
- Statements that provide an overall evaluation of the applicant. Generally, there are three types of statements. The first indicates the overall quality of the worker or student (e.g., "She is the best employee I ever had"). The second indicates the strength of the recommendation (e.g., strongly recommend, recommend with reservations). The third is a prediction of the future (e.g., "She will be an outstanding employee for you").
- A closing paragraph telling the reader to contact the writer if he or she has any questions

Research indicates that when people read these components, they evaluate letters more positively when the letters contain specific examples and the letters are not too short in length.

ETHICAL ISSUES

Because providing references and letters of recommendation is a subjective process, the following ethical advice should be considered:

- Explicitly state your relationship with the person you are recommending.
- Be honest in providing details and making recommendations.
- Be honest with the applicant about the degree to which the reference will be positive.
- Avoid conflicts of interest when asked to provide a recommendation for two or more people applying for the same position.
- Include only job-related information.

LEGAL ISSUES

Although letters of recommendation do not appear to have high levels of adverse impact, some legal issues must be considered. Employers may be charged with *negligent hiring* if an employee has a criminal or violent past, the employer did not check references, and the employee commits a crime or other tort during working hours. Reference providers can be charged with *defamation* if they make negative statements that are not true and provided with malicious intent. Employers that do not provide information about a former employee's violent or illegal behavior may be charged by the new employer with *negligent reference* if the employee commits a crime or other tort while employed at the new job.

—Michael G. Aamodt

See also Employment Interview; Prescreening Assessment Methods for Personnel Selection

FURTHER READING

Bliss, W. G. (2001). *Legal, effective references.* Alexandria, VA: Society for Human Resource Management.

Colarelli, S. M., Hechanova-Alampay, R., & Canali, K. G. (2002). Letters of recommendation: An evolutionary psychological perspective. *Human Relations, 5*(3), 315–344.

Harshman, E., & Chachere, D. R. (2000). Employee references: Between the legal devil and the ethical deep blue sea. *Journal of Business Ethics, 23,* 29–39.

McCarthy, J. M., & Goffin, R. D. (2001). Improving the validity of letters of recommendation: An investigation of three standardized reference forms. *Military Psychology, 13*(4), 199–222.

Taylor, P. J., Pajo, K., Cheung, G. W., & Stringfield, P. (2004). Dimensionality and validity of a structured telephone reference check procedure. *Personnel Psychology, 57,* 745–773.

LIFE-CYCLE MODEL OF LEADERSHIP

The situational leadership (SL) theory, developed by Paul Hersey and Ken Blanchard, is one of the most widely known frameworks for explaining managerial effectiveness. Although the framework is particularly popular among practicing managers and professional trainers, it has not enjoyed comparable attention from the academic community of industrial/organizational researchers. Nonetheless, the theory is recognized among researchers for its intuitive appeal, though it is not considered a clearly valid or robust framework for the prescription of leader behavior.

Since its earliest origins, when it was known as the life-cycle theory of leadership, SL theory has undergone a variety of changes. Some of these changes have been relatively cosmetic—for example, relabeling follower *maturity* as *developmental level* and then *readiness*, relabeling *willingness* as *commitment*, relabeling *ability* as *competence*, relabeling leader *task behavior* as *directive behavior*, relabeling leader *relationship behavior* as *supportive behavior*, relabeling the *prescriptive curve* as the *performance curve* and then the *leadership style curve*, and finally, relabeling *telling-selling-participating-delegating* as *directing-coaching-supporting-delegating*. Other changes—reflected in the most recent version of the model, termed *situational leadership II*—such as suggesting that low employee development or maturity involves differing dynamics, are arguably problematic and even suggest that increased maturity may result in decreased motivation. Despite these changes, the core concepts of SL remain largely intact, even if they have not been adequately validated.

Situational leadership theory continues to tie in with other contemporary views of what makes for effective supervision. For example, three contemporary workplace perspectives are completely in accord with SL's essential principles: (1) Self-directed work teams (a popular performance-enhancement technique) advocates that supervision should be minimal when employees are sufficiently capable of being self-directed; (2) employee competence and dedication or professionalism can be viewed as potent substitutes for leadership; and (3) leaders need to be both socially intelligent and flexible in their behavior.

In relation to other perspectives on leadership, SL theory is often viewed as one of several situational models that arose during the 1960s and 1970s. As part of a trend toward incorporating situational elements into explanations of leader effectiveness, the theory's appeal was driven by dissatisfaction with earlier paradigmatic approaches that emphasized leader traits and leader behaviors to the exclusion of situational attributes. This theory also builds on earlier behavioral (or stylistic) approaches in that it includes a prevalent perspective wherein leadership is conceptualized along two independent dimensions: leader consideration and leader initiation of structure. The theory is novel, however, in its attempt to specify which combination of leader behaviors along these two dimensions is optimal in light of follower maturity. Within this theory, follower maturity is most often defined as a combination of the ability to perform a task and the willingness (or commitment and motivation) to accomplish a task.

The key principle underlying SL theory's most essential social dynamic is that as follower maturity increases, optimal leader behavior should involve less structuring and less consideration. Although the decline in the need for structuring is straightforward, the relationship to leader supportiveness is less so. Specifically, followers who are comparatively low on maturity should benefit from high structuring combined with low consideration. As the follower gains maturity, the need for leader structuring declines, but the need for supervisory supportiveness actually increases. At the highest levels of follower maturity, the need for both leader structuring and social supportiveness declines further, such that at the highest levels of follower maturity, leader structuring and consideration are irrelevant to follower performance. This transitioning of prescribed leader style can be summarized as moving from telling to selling to participating and, ultimately, to delegating (along a prescriptive curve).

The theory's intuitive appeal lies in its simplicity, as well as the self-evident correctness that is attendant to human (especially child) development. Consider that one would not attempt to handle a class of first graders in the same fashion as one would attempt to handle eighth graders, high school students, or college students. Clearly, one would be engaging in more telling at the lowest level of maturity and, ideally, far more delegating at the college (especially the graduate) level. The model is also appealing to military leadership training because raw recruits undergo a transformation as they gain ability and commitment. Because we all vary our own behaviors based on

circumstances and expect to be treated differentially based on self-perceived efficacy, the model's proposed dynamic is inherently enticing. The model is broadly attractive because it focuses on managerial dynamics rather than true leadership, which can be vested in any group member and typically refers to some form of incremental influence beyond one's nominal position or headship. Hence, the model offers practical guidance to people who find themselves in positions of responsibility (who may have little interest in the subtleties of a variety of alternative models of leadership that are long on evidence of aggregate correlational associations but short on specific advice as to how to relate to individual employees).

An empirical demonstration of the validity of the model's core tenet (the value of leader adaptability) is desirable. However, a variety of obstacles have impeded progress in studying the model in a rigorous fashion. First, the model is embedded in a training package that includes (along with training videos, worksheets, puzzles, games, and practice activities) a preferred instrument for assessing leader style. Although theoretical ties to the Ohio State University measures of consideration and initiating structure are evident, the instruments that are recommended for assessing a leader's personal style may not possess comparable psychometric merit. Additionally, the definition and measurement of employee maturity, a key construct, requires further development.

Despite these problems, empirical studies of SL theory have been attempted, yielding a mixed pattern of results. One study of 303 teachers in 14 high schools found support for the model's predictions for low-maturity subordinates (i.e., followers who were low in competence and commitment performed better with supervisors who were high on structuring but low on consideration) and for moderate-maturity subordinates (i.e., moderate structuring combined with higher considerateness was optimal). However, no support was found for high-maturity subordinates. In a replication of this study with a sample of nurses, similar directional (but nonsignificant) support was found for the earlier findings. In a further replication and extension of this line of research, 332 university employees and 32 supervisors were studied. The authors tested the suggestion that the model may be valid from an across-jobs perspective (in which norms govern how subordinates expect to be treated by a supervisor based on their competency and commitment) rather than a within-jobs perspective. Yet the results continue to suggest that the original model has limited descriptive

utility. However, further analyses have indicated that supervisory monitoring and consideration interact with job level such that monitoring has a positive impact for lower-level employees, whereas considerateness has a more positive impact for higher-level employees. This suggests that the model's most central and intuitively appealing aspect may be correct, whereas specific predictions based on follower maturity may be incorrect. In a related study of 1,137 employees across three organizations, it was found that employees with higher levels of education and greater levels of job tenure express less preference for supervisory structuring. This suggests that an understanding of employee expectations of supervisor behavior may be valuable in optimizing the level and nature of supervisory involvement with subordinates.

Beyond the aforementioned problem of deciding how best to operationalize key constructs, tests of the model have been limited because of the relatively low frequency of "matches" (relative to "mismatches"), wherein the ideal circumstances or combinations specified by the model are obtained. Furthermore, studies of the developmental dynamic proposed by the model (wherein followers gain or even regress in ability and willingness) are virtually nonexistent. Despite these problems, a sufficient number of SL-related studies have been conducted (many of them doctoral dissertations that rely on leader self-assessments) that a meta-analysis was recently conducted. Based on 35 studies, the results were judged to be generally supportive of the relationship between leader adaptability and effectiveness, with an overall corrected effect size of .31 and an estimated 95% confidence interval of the true correlation of .19 to .41. Hence, the authors concluded that the ability to appropriately adapt one's leadership style to the developmental level of a follower is related to overall leader effectiveness. Judged in their totality, the results of this meta-analysis, as well as other more rigorous studies, suggest that SL theory continues to be a promising approach to understanding leadership.

—Robert P. Vecchio

See also Leadership and Supervision; Situational Approach to Leadership

FURTHER READING

Blanchard, K. H., Zigarmi, D., & Nelson, R. B. (1993). Situational leadership after 23 years: A retrospective. *Journal of Leadership Studies, 1,* 22–36.

Fernandez, C. F., & Vecchio, R. P. (1997). Situational leadership theory revisited: A test of an across-jobs perspective. *Leadership Quarterly, 8,* 67–84.

Hersey, P., & Blanchard, K. (1969). Life-cycle theory of leadership. *Training and Development Journal, 23,* 26–34.

Hersey, P., Blanchard, K., & Johnson, D. E. (2001). *Management of organizational behavior: Leading human resources* (8th ed.). Englewood Cliffs, NJ: Prentice Hall.

Norris, W. R., & Vecchio, R. P. (1992). Situational leadership theory: A replication. *Group and Organization Management, 17,* 331–342.

Shilobod, T. L., McMullen, L. J., & Raymark, P. H. (2004, April 1–4). *Situational leadership theory: A meta-analysis of the adaptability hypothesis.* Paper presented at the 19th Annual Conference of the Society for Industrial and Organizational Psychology, Chicago.

Vecchio, R. P., & Boatwright, K. J. (2002). Preferences for idealized styles of supervision. *Leadership Quarterly, 13,* 327–342.

LINKAGE RESEARCH AND ANALYSES

Linkage research identifies the relationship between employee perceptions of the work environment and objective measures of business performance (e.g., productivity) and other relevant organizational outcomes (e.g., customer satisfaction). Workplace perceptions are typically gathered through employee surveys, and measures of business performance are selected on the basis of what outcomes are relevant to the firm's strategy. Linkage research serves two purposes. First, it provides organizational leaders with a compelling demonstration of the validity of employee perceptions and the effects of employee opinions on business success. Second, it helps organizations to identify specifically what they should do to improve.

RELATIONSHIP BETWEEN EMPLOYEE OPINIONS AND BUSINESS PERFORMANCE

The history of job satisfaction research has been largely disappointing in its consideration of the seemingly logical belief that happy workers are more productive. Simply put, evidence of the relationship between employee satisfaction and individual productivity was found to be lacking as early as the 1950s and in many reviews of the relationship since then. This surprising lack of relationship can be attributed to several factors, including employees' lack of

discretion in deciding how to perform their jobs and the lack of reliability in individual performance measures. In contrast, linkage analyses are conducted at the level of the relevant organizational work unit. The organizational measures of performance selected may be more reliable and less prone to rating biases than individual ratings of job performance. Organizational measures also reflect the benefit of the aggregate discretionary individual behaviors that affect unit and organizational functioning and may not be captured in traditional individual performance measures.

Cumulative evidence across many linkage studies suggests a compelling picture. Workplace perceptions have been shown to predict financial measures of success (sales, profits), customer satisfaction, turnover rates, safety, and other relevant business outcomes. The findings are robust, although the range of business outcomes represented in the published studies is somewhat limited and comprises mostly customer-focused outcomes. This is partly attributable to the fact that customer-focused industries tend to be organized around common business practices, and business units tend to be easily identifiable and significant in number. Therefore, linkage research has been largely limited to organizations with multiple homogeneous business units (such as bank branches, hotels, and car dealerships).

WHICH EMPLOYEE OPINIONS MATTER?

The fundamental challenge in designing employee surveys is choosing the right questions to ask. There are practical limits to the length of employee surveys, and the number of possible topics to be represented is large. Consequently, employee surveys capture how employees perceive the work environment with varying degrees of specificity. In some surveys, questions focus on very specific organizational practices, such as the availability of specific resources such as computers or management support. In other cases, the questions are broad indicators of satisfaction, such as direct ratings of satisfaction with supervision or the degree of autonomy.

Despite these broad differences in specificity, the relationship between survey data and business performance indicators is robust. Questions about employees' general satisfaction as well as more specific questions about organizational climate are consistently related to organizational outcome measures (at the unit level of analysis). That said, it is

considered best practice by many to ask questions that lead to a more direct and actionable interpretation. For example, knowing that 25% of the employees in a job class have received training in a specific operational procedure is more actionable than knowing that 25% of them are satisfied with the overall level of training they have received. Thus, linkage research provides insights into which opinions determine organizational success, but the practical interpretation depends greatly on the specificity of the employee survey questions asked.

Beyond specificity, the breadth of survey content restricts the domain of possible linkage relationships. Few organizational surveys are truly comprehensive; the breadth of questions is restricted by practical considerations and specific interests. Thus, the conclusions that can be drawn are limited to the areas of inquiry represented in the survey itself.

ASSUMPTIONS OF LINKAGE RESEARCH

The value of linkage research is predicated on the reasonableness of certain key assumptions. The first assumption is the availability of measures of business performance that have a common interpretation across organizational units. Consider, for example, that fatality measures have a very different interpretation across different hospital settings. More difficult to assess is the degree to which the specific business measure is influenced by other, more powerful determinants. For example, the variance of sales performance of similar retail stores may be attributable to local influences (e.g., neighborhood socioeconomics), which, in turn, may be correlated with workplace characteristics (e.g., the availability of a qualified labor pool). Thus, other sources of variance may mask the relationship between workplace perceptions and otherwise reasonable measures of organizational success.

The second important assumption centers on the reasonableness of drawing cause-and-effect conclusions from cross-sectional data. For example, a correlation between employee satisfaction and business performance can be attributed to a common underlying causal mechanism. (That is, the two are correlated because they are caused by a third, unspecified variable.) In addition, the direction of causality may be different than expected. For example, job satisfaction may be the result of business performance. (People who work for more successful companies may be more satisfied because business success engenders opportunities that

are not otherwise possible.) In fact, some evidence suggests that the relationship is complex and that causal influences run in both directions. To a certain extent, rival hypotheses to the cause-and-effect relationship can be eliminated when studies are conducted in the field over time, but even then, the results can be difficult to interpret and require strong inferences.

A third and more complex assumption regards the meaning of variance of perceptions within organizational units. In part, this is a question about the appropriateness of aggregating individual perceptions to create work unit averages. That is, the interpretation given to the average of employee responses is not necessarily the same as the interpretation given to individual respondent answers. For example, measures of organizational climate are often interpreted as indicators of shared perceptions. In order to work at the unit level of analysis, reasonable agreement within the work units must exist. Otherwise, aggregating the data across individuals serves little purpose because the unit average carries no useful interpretation. (To follow the same example, if there is no consensus among employees in the work unit, there is no climate because there is no basis for shared perceptions.) The degree of consensus within the work unit has diagnostic relevance as well. Specifically, research by Benjamin Schneider and his colleagues demonstrates that both the unit average and the dispersion of perceptions within the unit are independently related to important business outcomes.

The need to demonstrate within-unit agreement does not mean that everyone must see things in an identical manner. Rather, it means there is some reasonable degree of consensus regarding what is true and what is not true about the workplace. Over time, conventional wisdom has developed regarding how consensus should be measured and what is regarded as a minimal level of within-unit agreement.

SUMMARY

Linkage research provides a powerful tool for identifying what can be changed in the work environment to improve organization performance. The methods for conducting linkage research are well documented in the literature, but the realization of benefits depends on management's ability to ask appropriate questions, interpret the research outcomes, and execute relevant strategies to address those results.

—William H. Macey

See also Feedback; Organizational Climate; Person–Environment Fit; Person–Organization Fit

FURTHER READING

Dietz, J., Pugh, S. D., & Wiley, J. W. (1994). Service climate effects on customer attitudes: An examination of boundary conditions. *Academy of Management Journal, 47,* 81–92.

Schneider, B., Salvaggio, A. N., & Subirats, M. (2002). Service climate: A new direction for climate research. *Journal of Applied Psychology, 87,* 220–229.

Schneider, B., & White, S. S. (2004). *Service quality: Research perspectives.* Thousand Oaks, CA: Sage.

Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology, 83,* 150–163.

Wiley, J. W. (1996). Linking survey results to customer satisfaction and business performance. In A. I. Kraut (Ed.), *Organizational surveys: Tools for assessment and change.* San Francisco: Jossey-Bass.

LOCUS OF CONTROL

Locus of control is a personality variable that reflects a person's general beliefs about whether he or she is in control or whether external forces are in control. Individuals who believe they are in control are called *internals*, whereas people who believe that external forces (luck, fate, or powerful others) are in control are called *externals*.

Studies of locus of control originate from the field of social psychology—specifically within the framework of social learning theory developed by J. B. Rotter (1954, 1966). The concept of locus of control addresses assumptions about one's responsibility for good or bad events. Internals attribute events in their lives to their own actions, motivations, or competencies, whereas externals attribute events to outside forces such as luck, chance, or powerful others.

MISCONCEPTIONS ABOUT LOCUS OF CONTROL

Researchers have expressed concern about the theoretical and measurement issues involved with locus of control, claiming that the concept has been overgeneralized and oversimplified. There is a misconception that internality is invariably associated with positive elements and that externality is associated with negative events. In reality, however, people cannot exercise control over all events or situations—hence, we should try to alter what can be changed but accept what cannot be changed. Therefore, it is more meaningful to distinguish objective work control from people's beliefs and perceptions about control. Locus of control is a personality variable that concerns whether a person believes he or she can control certain types of events, whereas a *control perception* concerns whether a person can influence a particular event at a specific time.

In 1982, Rothbaum, Weisz, and Snyder proposed two categories of control, primary and secondary. *Primary control* consists of actions that a person takes to change the world or attempts to adapt the world to the person. *Secondary control* involves changing the self to fit the external environment. This two-process model of perceived control discusses not only the sources of control (i.e., locus of control) but also the direction or motivation of control.

MEASUREMENT OF LOCUS OF CONTROL

Julian Rotter's Internal-External Locus of Control Scale, published in 1966, is the most commonly used and cited locus of control instrument. It comprises 23 items. Since the early 1980s, more than 30 locus of control measurement scales have been developed and adapted to different domains or work settings, such as the Work Locus of Control Scale, developed by P. E. Spector in 1988, and the Vocational Locus of Control Scale, developed by Genevieve Fournier and Chantale Jeanrie in 1999. These researchers found that their locus of control scales are better predictors of situation-specific behavior than Rotter's scale.

THE IMPORTANCE OF LOCUS OF CONTROL AS A STRESS MODERATOR

The concept of locus of control has been examined in many disciplines, including psychology, education, and medicine. Internal locus of control has been found to moderate stressful life events and may alleviate emotional distress among cancer patients.

In the field of industrial/organizational psychology—specifically, in research on job stress and well-being—Spector used his control model of stress to explain that control helps to filter perceptions of

situations and influences whether situations are appraised as threatening. A person who perceives low control is more likely to appraise situations as job stressors. In Spector's 1986 meta-analysis, he stated that internal locus of control is related to a lower perception of work role stress (role conflict and role ambiguity) and less physical and psychological strain.

The moderating role of locus of control between job stressors and job strains has been well established. For example, work locus of control has been found to be a stress moderator in certain professions in Western and Chinese societies, a finding noted by Oi-ling Siu and colleagues in 1998 and 2002 and by Spector in 1988.

CROSS-CULTURAL STUDIES OF LOCUS OF CONTROL AND PERCEIVED CONTROL

Several studies have compared locus of control among country samples. Asians appear to believe that they have less personal control than Americans and those from other Western countries. For example, in 2002, Spector and his colleagues studied work locus of control across 24 nations. They found that Asian samples (e.g., Japan, Hong Kong, China) scored more external on the Work Locus of Control Scale than samples from other regions of the world, including North America and Europe.

In 2004, Spector and his colleagues argued that Asians scored more external on locus of control and appeared to be more passive than Americans because the research was conducted mainly with U.S.-developed constructs and scales, which assess primary control. Spector and his colleagues expanded the notion of control beliefs by developing scales to assess secondary control beliefs and the new construct of *socioinstrumental control* beliefs (i.e., control through interpersonal relationships). They suggested that views of Asians as passive avoiders of control at work may be incorrect, a result of overlooking socioinstrumental control.

LOCUS OF CONTROL AND POSITIVE HEALTH PSYCHOLOGY

In the 21st century, locus of control is considered one of the human virtues that promote *eustress,* a positive psychological response to a stressor. Internals are believed to be more likely to appraise demands as opportunities rather than threats, and they are more likely to select problem-solving forms of coping as a first choice rather

than emotion-focused coping mechanisms. As a result, it is uncommon for internals to report immune-system dysfunctions and related illnesses.

—*Oi-ling Siu*

See also Control Theory

FURTHER READING

Fournier, G., & Jeanrie, C. (1999). Validation of a five-level locus of control scale. *Journal of Career Assessment, 71,* 63–89.

Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology, 42,* 5–37.

Rotter, J. B. (1954). *Social learning and clinical psychology.* Englewood Cliffs, NJ: Prentice Hall.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*(1).

Siu, O. L., & Cooper, C. L. (1998). A study of occupational stress, job satisfaction, and quitting intention in Hong Kong firms: The role of locus of control and organizational commitment. *Stress Medicine, 14,* 55–66.

Siu, O. L., Spector, P. E., Cooper, C. L., Lu, L., & Yu, S. F. (2002). Managerial stress in greater China: The direct and moderator effects of coping strategies and work locus of control. *Applied Psychology, 51,* 608–632.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations, 39,* 1005–1016.

Spector, P. E. (1988). Development of the Work Locus of Control Scale. *Journal of Occupational Psychology, 61,* 335–340.

Spector, P. E., Cooper, Sanchez, et al. (2002). Work locus of control and well-being at work: How generalizable are Western findings? *Academy of Management Journal, 45*(2), 453–466.

Spector, P. E., Sanchez, J. I., Siu, O. L., Salgado, J., & Ma, J. (2004). Eastern versus Western control beliefs at work: An investigation of secondary control, socioinstrumental control, and work locus of control in China and the U.S. *Applied Psychology, 53,* 38–60.

LONGITUDINAL RESEARCH/ EXPERIENCE SAMPLING TECHNIQUE

Longitudinal research involves the collection and analysis of comparable data at more than one point in

time. The exact number of time points and the interval between time points depend on the nature of the investigation. A longitudinal design is desirable for many research investigations because it enables an assessment of change over time. The history of research methods in industrial/organizational psychology shows the increasing importance of longitudinal designs (although they are still relatively rare) and advances in associated analytical methods. Experience sampling is one method of longitudinal research in which people are asked to report on particular aspects of their everyday experiences at frequent intervals (which may be more than once a day). This form of longitudinal research has become more commonplace in industrial/organizational psychology in recent years because of its potential for capturing the dynamic nature of work experiences.

LONGITUDINAL RESEARCH

The defining characteristic of *longitudinal research* is that it examines how data change over time. This contrasts with cross-sectional research, in which data are collected and analyzed at only one point in time in order to provide a single snapshot of the variables being studied. Research in which cross-sectional data collection is repeated over time—for example, when a survey is readministered in an organization—is considered longitudinal only if the analysis compares the data from different time points (rather than examining the data from each time point in isolation).

Data can be collected over time from the same sample or from different samples in longitudinal research. Retaining the same sample can be difficult from a practical viewpoint, but it allows the researcher to identify how individuals change over time and eliminates the possibility that identified changes are attributable to differences between samples rather than changes over time. Longitudinal data can be quantitative, qualitative, or both. There are many methods for collecting longitudinal data, but the measures used should be consistent over time so that identified changes cannot be attributed to changes in instrumentation. There are a variety of techniques for analyzing longitudinal data, including time-series analysis, longitudinal multilevel modeling, and latent variable modeling. Usually, studies that sample a large number of equally spaced time points (time-series analysis) offer the greatest potential for identifying the causes and nature of effects.

Types of Longitudinal Research

Five main types of longitudinal research study can be identified:

1. A *trend study* compares different groups from the same population at different points in time. It can provide information about net change but not individual change.

2. A *panel study* tracks the same individuals at fixed intervals over a period of time, which often covers many years.

3. A *cohort study* follows a sample of individuals from a particular group (e.g., an age or an employment group) at fixed intervals over a period of time. It is usually a form of panel study, but it becomes a trend study if a new sample is observed at each time point. A number of cohorts can be simultaneously observed and compared over time, which can be useful for separating the effects of maturational and external influences. For example, comparing different age cohorts measured at the same point in time and the same age cohorts measured at different points in time can help distinguish changes that normally occur as people get older from changes resulting from shifts in employment. If a cohort has received a treatment or intervention, the study is also a quasi-experiment because the individuals have not been assigned randomly to the groups being compared.

4. An *intervention study*—which is also a form of quasi-experiment—examines the effects of a naturally occurring intervention (e.g., occupational retirement) or an imposed intervention (e.g., a stress-prevention program) by comparing data collected from a group on one or more occasions, both before and after it receives the intervention. Collecting data at the same times from a comparison or control group that has not received the intervention can help to establish whether the changes resulted from the intervention.

5. An *experience sampling study* obtains reports from the same individuals on many occasions at frequent intervals. It is distinguished by its focus on individuals' immediate experiences in their natural environment and its high frequency of reporting.

Retrospective studies, in which participants recall aspects of their life histories or recent past, are sometimes also labeled longitudinal, but this is not strictly accurate because, although they cover periods of time, they do not usually involve real-time sampling at more than one time point. In genuinely

longitudinal retrospective studies, participants report at consecutive time points on their experiences since the last time point. Prospective studies are often preferred, however, because they are less susceptible to the problem of memory recall.

Advantages and Disadvantages

Longitudinal research is advantageous in situations in which the investigator wishes to (a) focus on change or patterns of change; (b) measure the duration of an effect; (c) investigate causal processes, including sleeper or delayed effects; (d) separate maturational and external influences; or (e) establish the effects of an intervention.

However, a number of disadvantages are also associated with longitudinal research. First, it can be difficult to retain participants between time points—for example, they may leave their job or no longer wish to participate. Sample sizes, therefore, commonly become smaller over time, and changes in the findings may actually reflect this attrition (or mortality) rather than true change if individuals drop out on a systematic basis. Second, there is the potential for reactivity—that is, responses may be influenced by previous participation, or respondents may actually change themselves as a consequence of participation. Third, longitudinal research has practical disadvantages in that it takes more time and resources to complete. Finally, although longitudinal research goes some way toward addressing the fact that psychological processes unfold in time, it still relies on the selection of discrete time points; therefore, what occurs between those time points must be inferred. Experience sampling is less prone to this problem because it uses frequent time points.

EXPERIENCE SAMPLING

The term *experience sampling method* (ESM) was coined during the late 1970s by Mihalyi Csikszentmihalyi to describe the technique of obtaining subjective reports of people's current experiences by signaling them at random times in their natural environment (using beepers, for example). Now, the term is used more broadly to refer to any research method that involves collecting subjective reports of episodic experiences from people on frequent occasions during their everyday life. This technique is also known by other names, including *diary methods*, *time sampling*, and *ecological momentary assessment*.

The interval between sampling points in ESM varies from study to study, but the majority use either a number of sampling points within each day or a once-daily schedule. In designing an ESM study, researchers must strike a balance between sampling frequency, duration of study, and time needed to complete measures so as not to place excessive demands on participants. The intense nature of experience sampling means that studies usually involve a smaller sample size and a smaller number of measures than cross-sectional survey studies, but the number of time points contributes to the method's statistical power and reliability.

Experience sampling uses many means to signal participants to respond (pagers, telephone calls, e-mail messages, and palmtop computer alarms) and to collect data (paper diaries, telephone interviews, online surveys, and palmtop computer programs). Computerized devices have certain advantages for signaling and collection—for example, they are able to record the exact times when participants respond and provide greater efficiency in data processing. A variety of measurement formats can be used in ESM studies to record the thoughts, activities, and feelings of respondents. Analysis of ESM data is complicated by the fact that observations are not independent.

Types of Experience Sampling Study

There are three main types of experience sampling studies:

1. In *signal-contingent studies*, respondents report on their current experiences whenever they are prompted by a signal sent at quasi-random intervals. This procedure minimizes memory recall problems but may miss important low-frequency events. This type of study corresponds to the original intent of ESM.

2. In *interval-contingent studies*, a signal is sent at regular, fixed intervals, and respondents report on their experiences since the last signal. This procedure covers all events but relies on respondents' memory of them.

3. In *event-contingent studies*, respondents report on their experiences whenever a prespecified event

occurs (e.g., a work meeting, a conflict). This procedure investigates selected events in detail but is less amenable to time-series analysis.

Advantages and Disadvantages

Experience sampling offers four distinct advantages for research. First, the method enables an in-depth study of everyday experiences in a natural setting, which gives it high ecological validity. Second, experience sampling is suitable for examining how different kinds of individuals react to different kinds of everyday events and situations. Third, experience sampling allows researchers to study within-person processes and the temporal nature of their experiences (for example, how long it takes people to recover from negative events at work). Finally, the use of real-time assessment in experience sampling reduces the problem of memory biases, which are inherent in global retrospective reports.

Yet, like all research methods, experience sampling also has a number of disadvantages. The high frequency of reporting required of participants means that the method can cause a selection bias in the study sample (for example, an investigation of time demands at work will be compromised if only people with an abundance of time volunteer to participate). For the same reason, the method is also intrusive, heightens the risk of reactivity and habituation in responses, and is prone to missing data. Despite these problems, experience sampling is becoming an established method in industrial/organizational psychology because of its capacity to address temporal variations in the psychological experience of work.

—*Peter Totterdell*

See also Experimental Designs; Quantitative Research Approach; Quasi-experimental Designs

FURTHER READING

Alliger, G. M., & Williams, K. J. (1993). Using signal-contingent experience sampling methodology to study work in the field: A discussion and illustration examining task perceptions and mood. *Personnel Psychology, 46,* 525–549.

Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology, 54,* 579–616.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis for field settings.* Chicago: Rand McNally.

Csikszentmihalyi, M., & Larson, R. (1987). Validity and reliability of the experience-sampling method. *Journal of Nervous and Mental Disease, 175,* 526–536.

Menard, S. (2002). *Longitudinal research* (2nd ed.). London: Sage.

Rogelberg, S. G. (2002). *Handbook of research methods in industrial and organizational psychology.* Oxford, UK: Blackwell.

Scollon, C. N., Kim-Prieto, C., & Diener, E. (2003). Experience sampling: Promises and pitfalls, strengths and weaknesses. *Journal of Happiness Studies, 4,* 5–34.