

Early Contingency Theories of Effective Leadership

Learning Objectives

After studying this chapter you should be able to:

- Understand why it is necessary to consider the leadership situation when studying leadership.
- Understand how aspects of the situation can enhance or diminish the effects of leader behavior.
- Understand how aspects of the situation can serve as a substitute for the influence of formal leaders.
- Understand the primary contingency theories of effective leadership.
- Understand the conceptual weaknesses of each contingency theory.
- Understand the findings from empirical research on contingency theories.
- Understand the implications of situational theories for improving leadership.
- Understand the limitations of the research on contingency theories.

In earlier chapters we saw that aspects of the situation determine the role requirements for leaders. Comparative research on the way managerial behavior varies across situations (see Chapter 2) provides some useful insights, but it is only an indirect approach for discovering what type of leadership is optimal in a given situation. A more direct approach is to determine how leader traits or behaviors are related to indicators of leadership effectiveness in different situations. Aspects of the situation that enhance or nullify the effects of a leader's traits or behavior are called situational moderator variables. Theories that explain leadership effectiveness in terms of situational moderator variables are called *contingency theories* of leadership. This type of theory is most

useful when it includes intervening variables to explain why the effect of behavior on outcomes varies across situations.

The current chapter reviews six contingency theories of leadership: path-goal theory, situational leadership theory, leader substitutes theory, the multiple-linkage model, LPC contingency theory, and cognitive resources theory. These theories were popular during the 1970s and 1980s, and some of them stimulated considerable research during that period of time. Each theory is described briefly and evaluated in terms of conceptual adequacy and empirical support. The chapter ends with some general guidelines for varying leadership behavior from situation to situation.

LPC Contingency Model

Fiedler's (1964, 1967) LPC contingency model describes how the situation moderates the relationship between leadership effectiveness and a trait measure called the least preferred coworker (LPC) score.

Leader LPC Score

The LPC score is determined by asking a leader to think of all past and present coworkers, select the one with whom the leader could work least well, and rate this person on a set of bipolar adjective scales (e.g., friendly-unfriendly, cooperative-uncooperative, efficient-inefficient). The LPC score is the sum of the ratings on these bipolar adjective scales. A leader who is generally critical in rating the least preferred coworker will obtain a low LPC score, whereas a leader who is generally lenient will obtain a high LPC score.

The interpretation of LPC scores has changed several times over the years. According to Fiedler's (1978) most recent interpretation, the LPC score indicates a leader's motive hierarchy. A high LPC leader is primarily motivated to have close, interpersonal relationships with other people, including subordinates, and will act in a considerate, supportive manner if relationships need to be improved. Achievement of task objectives is a secondary motive that will become important only if the primary affiliation motive is already satisfied by close, personal relationships with subordinates and peers. A low LPC leader is primarily motivated by achievement of task objectives and will emphasize task-oriented behavior whenever task problems arise. The secondary motive of establishing good relations with subordinates will become important only if the group is performing well and it encounters no serious task problems.

Rice (1978) reviewed 25 years of research on LPC scores and concluded that the data support a value-attitude interpretation better than a motive hierarchy interpretation; that is, low LPC leaders value task success, whereas high LPC leaders value interpersonal success. As with the motive hierarchy interpretation, the pattern of leadership behavior varies with the situation. Rice's interpretation is basically in accord with Fiedler's motive hierarchy interpretation but is more parsimonious and better supported by diverse types of research.

TABLE 8-1 Relationships in the LPC Contingency Model

Octant	L-M Relations	Task Structure	Position Power	Effective Leader
1	Good	Structured	Strong	Low LPC
2	Good	Structured	Weak	Low LPC
3	Good	Unstructured	Strong	Low LPC
4	Good	Unstructured	Weak	Low LPC
5	Poor	Structured	Strong	High LPC
6	Poor	Structured	Weak	High LPC
7	Poor	Unstructured	Strong	High LPC
8	Poor	Unstructured	Weak	Low LPC

Situational Variables

The relationship between leader LPC score and effectiveness depends on a complex situational variable called situational favorability (or situational control), which is defined as the extent to which the situation gives a leader control over subordinates. Three aspects of the situation are considered.

1. *Leader-member relations:* The extent to which subordinates are loyal, and relations with subordinates are friendly and cooperative.
2. *Position power:* The extent to which the leader has authority to evaluate subordinate performance and administer rewards and punishments.
3. *Task structure:* The extent to which standard operating procedures are in place to accomplish the task, along with a detailed description of the finished product or service and objective indicators of how well the task is being performed.

Favorability is determined by weighting and combining these three aspects of the situation. The weighting procedure assumes that leader-member relations are more important than task structure, which in turn is more important than position power. The possible combinations yield eight levels of favorability, called octants (see Table 8-1).

Propositions

According to the model, the situation is most favorable for the leader (octant 1) when relations with subordinates are good, the leader has substantial position power, and the task is highly structured. When leader-member relations are good, subordinates are more likely to comply with leader requests and directions, rather than ignoring or subverting them. When a leader has high position power, it is easier to influence subordinates. When the task is structured, it is easier for the leader to direct subordinates and monitor their performance. The situation is least favorable for the leader (octant 8) when relations with subordinates are poor, the task is unstructured, and position power is low.

The causal relationships among the variables are depicted in Figure 8-1. According to the model, when the situation is either very favorable (octants 1–3) or very unfavorable (octant 8), low LPC leaders will be more effective than high LPC

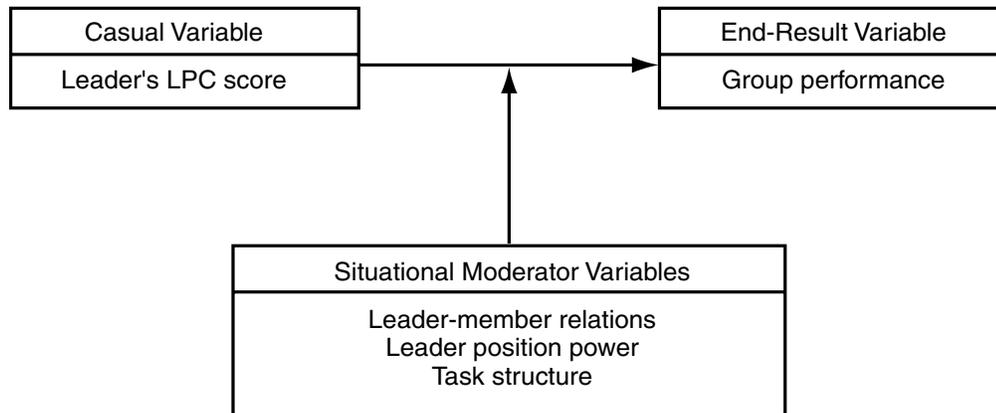


FIGURE 8-1 Causal Relationships in the LPC Contingency Model.

leaders. When the situation is intermediate in favorability (octants 4–7), high LPC leaders will be more effective than low LPC leaders.

Research on the Theory

A large number of studies were conducted to test the LPC contingency theory. Reviews of this research by Strube and Garcia (1981) and by Peters, Hartke, and Pohlmann (1985) concluded that the research tends to support the model, although not for every octant and not as strongly for field studies as for laboratory studies.

Although the results were mostly positive, the methods used to test the theory have been strongly criticized by a number of writers. One criticism is that the empirical support is based on correlational results that fail to achieve statistical significance in a majority of cases, even though correlations may be in the right direction (Graen, Alvares, Orris, & Martella, 1970; McMahan, 1972; Vecchio, 1983). Another criticism involves the process by which three different aspects of the situation are combined into a single continuum. The weights used to compute situational favorability and establish the octants seem arbitrary (Shiflett, 1973).

Conceptual Weaknesses

The LPC contingency theory has some serious conceptual weaknesses. The LPC score is a “measure in search of a meaning” (Schriesheim & Kerr, 1977a, p. 23). Its interpretation has been changed in an arbitrary fashion, and the current interpretation is speculative. LPC scores may not be stable over time and may be more complex than assumed (Yukl, 1970).

The model is not really a theory, because it does not explain how a leader’s LPC score affects group performance (Ashour, 1973). The lack of explicit leader behaviors and intervening variables limits the utility of the model. In the absence of behavior variables, the model does not provide any guidance for training leaders how to adapt to the situation. If LPC is a relatively stable personality trait, as usually assumed, then changing it is not an option for improving leadership.

Another option is to select the leader to fit the situation, but the LPC scale cannot satisfy the requirements for a valid selection tool. The final option is to change the situation to fit the leader. It may be possible to make the situation more or less favorable to fit the leader's LPC score (Fiedler & Chemers, 1982), but reducing favorability is probably counterproductive. For example, the idea that some leaders should try to make leader-member relations worse (e.g., by being much less supportive) seems unethical as well as unwise (Schriesheim & Kerr, 1977b). Likewise, any changes that are made in the task structure should be guided by concern for efficient use of people and resources, not by the desire to make task structure compatible with the leader's LPC score. Research suggests that modifying task structure has up to 10 times the effect on group performance as leader LPC scores (O'Brien & Kabanoff, 1981).

The model (and most of the research) neglects medium LPC leaders, who probably outnumber the high and low LPC leaders. Research suggests that medium LPC leaders are more effective than either high or low LPC leaders in a majority of situations (five of the eight octants), presumably because they balance concern for the task and concern for relationships more successfully (Kennedy, 1982; Shiflett, 1973).

Summary

Fiedler (1973, 1977) replied to the criticisms, and the debate over the validity of the model is still continuing. However, interest in the theory has waned over the years as better situational theories have developed. The LPC contingency model was one of the earliest contingency theories of leadership, and its major contribution may have been to encourage greater interest in situational factors.

Path-Goal Theory of Leadership

The path-goal theory of leadership was developed to explain how the behavior of a leader influences the satisfaction and performance of subordinates. Building on an early version of the theory by Evans (1970), House (1971) formulated a more elaborate version that included situational variables. The theory was further refined by various writers (e.g., Evans, 1974; House & Dessler, 1974; House & Mitchell, 1974).

According to House (1971, p. 324), "The motivational function of the leader consists of increasing personal payoffs to subordinates for work-goal attainment and making the path to these payoffs easier to travel by clarifying it, reducing roadblocks and pitfalls, and increasing the opportunities for personal satisfaction en route." Leaders also affect subordinate satisfaction, particularly satisfaction with the leader. According to House and Dessler (1974, p. 13), ". . . leader behavior will be viewed as acceptable to subordinates to the extent that the subordinates see such behavior as either an immediate source of satisfaction or as instrumental to future satisfaction." The effect of a leader's actions on subordinate satisfaction is not necessarily the same as the effect on subordinate performance. Depending on the situation, leader behavior may affect satisfaction and performance the same way, or both differently, or one but not the other.

Explanatory Processes

A motivation theory called expectancy theory (Georgopoulos, Mahoney, & Jones, 1957; Vroom, 1964) is used to explain how a leader can influence subordinate satisfaction and effort. Expectancy theory describes work motivation in terms of a rational choice process in which a person decides how much effort to devote to the job at a given point of time. In choosing between a maximal effort and a minimal (or moderate) effort, a person considers the likelihood that a given level of effort will lead to successful completion of the task and the likelihood that task completion will result in desirable outcomes (e.g., higher pay, recognition, promotion, sense of achievement) while avoiding undesirable outcomes (e.g., layoffs, accidents, reprimands, rejection by coworkers, excessive stress). The perceived probability of an outcome is called an *expectancy*, and the desirability of an outcome is called its *valence*.

How the many expectancies and valences for different outcomes and levels of effort combine to determine a person's motivation is still a matter of speculation and controversy. In general, if subordinates believe that valued outcomes can be attained only by making a serious effort and they believe such an effort will succeed, then they will make the effort. The effect of a leader's behavior is primarily to modify these perceptions and beliefs.

Leader Behaviors

The initial version of the theory contained only two broadly defined leader behaviors: supportive leadership (similar to consideration) and directive leadership (similar to initiating structure and instrumental leadership). Two other leader behaviors were added in the later version by House and Mitchell (1974). The four behaviors are defined as follows:

1. *Supportive leadership*: Giving consideration to the needs of subordinates, displaying concern for their welfare, and creating a friendly climate in the work unit.
2. *Directive leadership*: Letting subordinates know what they are expected to do, giving specific guidance, asking subordinates to follow rules and procedures, and scheduling and coordinating the work.
3. *Participative leadership*: Consulting with subordinates and taking their opinions and suggestions into account.
4. *Achievement-oriented leadership*: Setting challenging goals, seeking better performance, emphasizing excellence, and showing confidence that subordinates will attain high standards.

Situational Variables

According to path-goal theory, the effect of leader behavior on subordinate satisfaction and effort depends on aspects of the situation, including task characteristics and subordinate characteristics. These situational moderator variables determine both the potential for increased subordinate motivation and the manner in which the leader must act to improve motivation. Situational variables also influence subordinate preferences for a particular pattern of leadership behavior, thereby influencing the impact

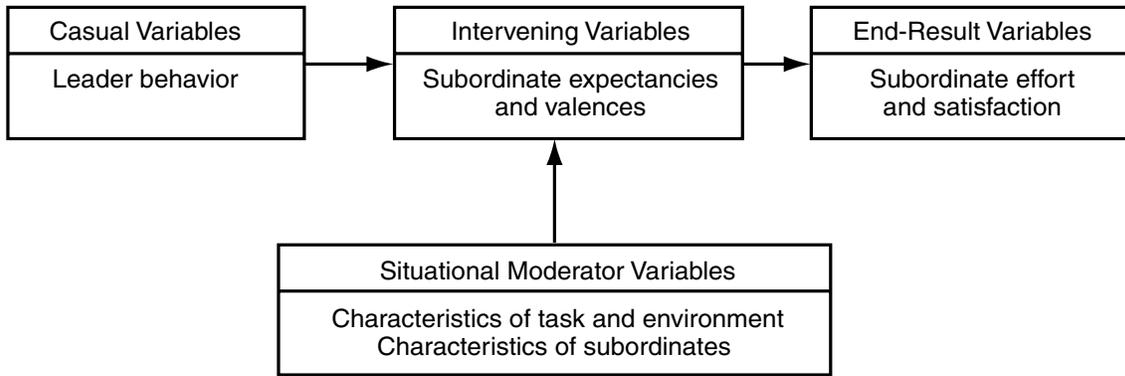


FIGURE 8-2 Causal Relationships in Path-Goal Theory of Leadership.

of the leader on subordinate satisfaction. The causal relationships in the theory are illustrated in Figure 8-2.

Major Propositions

When the task is stressful, boring, tedious, or dangerous, supportive leadership leads to increased subordinate effort and satisfaction by increasing self-confidence, lowering anxiety, and minimizing unpleasant aspects of the work. In expectancy theory terminology, the leader increases both the intrinsic valence (enjoyment) of doing the task and the expectancy that it will be successfully completed. However, if a task is interesting and enjoyable, and subordinates are already confident, then supportive leadership has little, if any, effect. The hypothesized causal chain for supportive leadership is depicted in Figure 8-3.

When the task is unstructured and complex, the subordinates are inexperienced, and there is little formalization of rules and procedures to guide the work, then directive leadership will result in higher subordinate satisfaction and effort. The role ambiguity that exists when subordinates do not understand how to do the work effectively causes them to have a low expectancy of success, even for a maximum effort. By re-

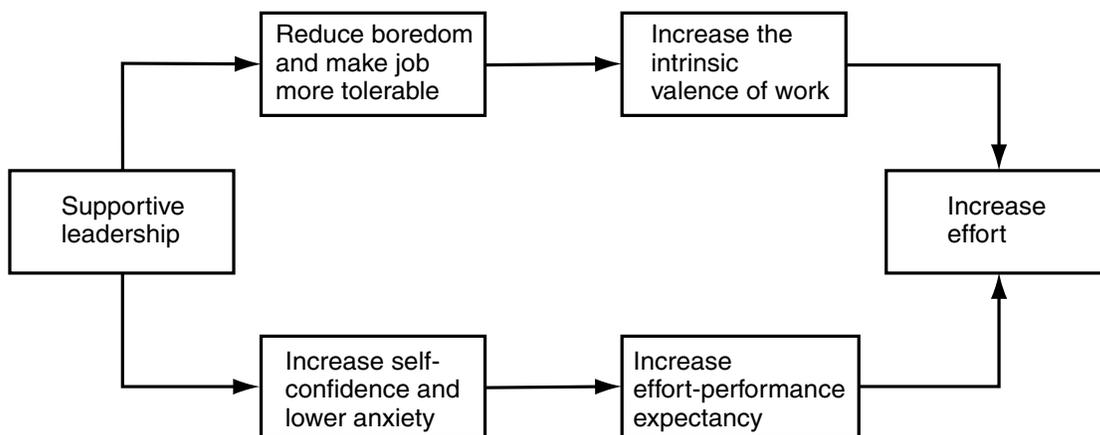


FIGURE 8-3 Causal Relationships for Effects of Supportive Leadership on Subordinate.

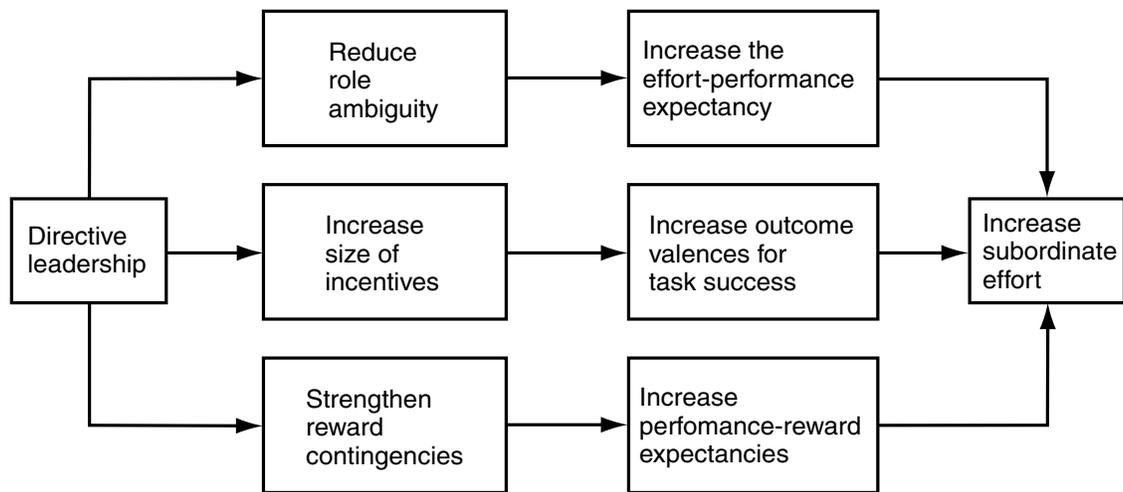


FIGURE 8-4 Causal Relationships for Effects of Directive Leadership on Subordinate.

ducing role ambiguity, the leader increases expectancies and thus effort. The theory further assumes that role ambiguity is unpleasant and reducing it will lead to greater subordinate satisfaction. When the task is structured or subordinates are highly competent, directive leadership will have no effect on effort. Moreover, in this situation, if subordinates perceive close supervision and direction to be an unnecessary imposition of leader control, satisfaction may actually decline.

The hypothesized causal chain for directive leadership is depicted in Figure 8-4. As the figure shows, directive leadership affects subordinate effort in a number of ways. Effort can be increased by finding new and larger performance rewards and making them more closely contingent upon subordinate performance. This option was included in the initial formulation of the theory by Evans (1970) and House (1971) but was neglected in most subsequent versions and in the validation research, perhaps because positive reward behavior does not fit well into the prevailing definition of directive behavior.

The propositions for participative leadership and achievement-oriented leadership are not as well developed or researched as those for supportive and directive leadership. Participative leadership is hypothesized to increase subordinate effort and satisfaction when the task is unstructured by increasing role clarity. When the task is structured, this behavior has little or no effect. Participative leadership may also increase the intrinsic valence of the work and thus satisfaction for subordinates with a high need for achievement and autonomy. Achievement-oriented leadership is hypothesized to increase subordinate effort and satisfaction when the task is unstructured (i.e., complex and nonrepetitive) by increasing self-confidence and the expectation of successfully accomplishing a challenging task or goal. When the task is simple and repetitive, this behavior has little or no effect.

Research on the Theory

Research conducted to test path-goal theory has yielded mixed results. Wofford and Liska (1993) reviewed 120 survey studies on the theory and conducted a meta-analysis of the results for task and relations behavior. Podsakoff,

MacKenzie, Ahearne, and Bommer (1995) also conducted an extensive review of the research on moderator variables in leadership. Despite the large number of studies that have tested the theory, the results were inconclusive. Not enough studies were available to provide an adequate test of hypotheses about situational moderators of participative and achievement-oriented leadership. Most propositions about situational moderators of directive leadership were not supported; some evidence indicated that directive behavior correlated more strongly with satisfaction for subordinates with low ability than for subordinates with high ability, but only an indirect test of the proposition was possible. There was little or no moderating effect of the situation on the relationship between leader supportive behavior and subordinate satisfaction with the leader. As in the earlier research (see Chapter 3), most studies find a positive effect of supportive leadership on satisfaction, regardless of the situation.

Methodological limitations make it difficult to interpret the results from much of the research testing the theory (Wofford & Liska, 1993; Yukl, 1989). Most studies used a static correlational design, and subordinates rated leader behavior on survey questionnaires. These studies have the same limitations as much of the earlier behavior research (see Chapter 3). Another limitation of the research is that most studies deal with only a few aspects of the theory while ignoring other aspects, such as the intervening motivational processes (expectancies and valences). Many studies measured surrogates instead of the situational variables actually specified by the theory. Taken together, these limitations of the research suggest that the theory has yet to be adequately tested.

Conceptual Weaknesses

Path-goal theory also has some conceptual deficiencies that limit its utility. The greatest weakness is reliance on expectancy theory as the primary basis for explaining leader influence. This rational decision model provides an overly complex and seemingly unrealistic description of human behavior (Behling & Starke, 1973; Mitchell, 1974; Schriesheim & Kerr, 1977a). Expectancy theory does not take into account emotional reactions to decision dilemmas, such as denial or distortion of relevant information about expectancies and valences. Expectancy theory does not incorporate some important aspects of human motivation such as self-concepts (see Chapter 9). Expectancy theory limits the explanation of leadership influence to changes in subordinate perceptions about the likely outcomes of different actions.

Another conceptual limitation is the reliance on broad categories of leader behavior that do not correspond closely to the mediating processes. It is easier to make a link between leader behavior and subordinate motivation by using specific behaviors such as clarifying role expectations, recognizing accomplishments, giving contingent rewards, modeling appropriate behaviors for subordinates to imitate, and communicating high expectations about subordinate performance.

Some of the explanations for hypothesized relationships in path-goal theory are questionable. It is assumed that role ambiguity will cause a person to have an unrealistically low expectancy, and that leader behavior resulting in greater clarity will automatically increase expectancies. However, clarification of the subordinate's role

sometimes makes it evident that successful task performance and the attainment of specific task goals are more difficult than the subordinate initially believed (Yukl, 1989). It is assumed that role ambiguity is determined primarily by task structure (defined as a characteristic of the task, not the employee), but a more appropriate moderator variable is an employee's ability and experience in relation to the task. The same, supposedly structured task may be clear to an experienced subordinate but ambiguous to an inexperienced subordinate.

Another limitation of path-goal theory is that each type of leadership behavior is considered separately. Likely interactions among the behaviors or interactions with more than one type of situational variable are not considered (Osborn, 1974). For example, the theory says that directive leadership will be beneficial when the task is unstructured, but directive leadership may not be beneficial for an unstructured task if there is another situational determinant of subordinate role clarity, such as a high level of professional training and experience.

To make path-goal theory more comprehensive, House (1996) extended it to include some behaviors from more recent theories such as charismatic and transformational leadership (see Chapter 9). However, it is doubtful that the effects of these behaviors can be explained in terms of expectancy theory. Charismatic leadership emphasizes emotional arousal and influencing followers to do things that are not consistent with rational calculations (e.g., make self-sacrifices and take risks for ideological reasons). Moreover, the extended theory is much too complicated to be useful for practitioners.

Summary

Despite its limitations, path-goal theory has made an important contribution to the study of leadership by providing a conceptual framework to guide researchers in identifying potentially relevant situational variables. The recent extension of the theory (House, 1996) makes it more comprehensive but less parsimonious. No research has assessed whether the more recent theory is an improvement over the earlier versions.

Situational Leadership Theory

Hersey and Blanchard (1977) proposed a contingency theory that specifies the appropriate type of leadership behavior for different levels of subordinate "maturity" in relation to the work. A high-maturity subordinate has both the ability and confidence to do a task, whereas a low-maturity subordinate lacks ability and self-confidence.

Major Propositions

According to the theory, the level of subordinate maturity determines the appropriate mix of task-oriented and relations-oriented behavior for the leader (see Figure 8-5). Four degrees of maturity (quadrants M1 to M4) are distinguished, even though they are merely segments of a continuum ranging from immature to mature.

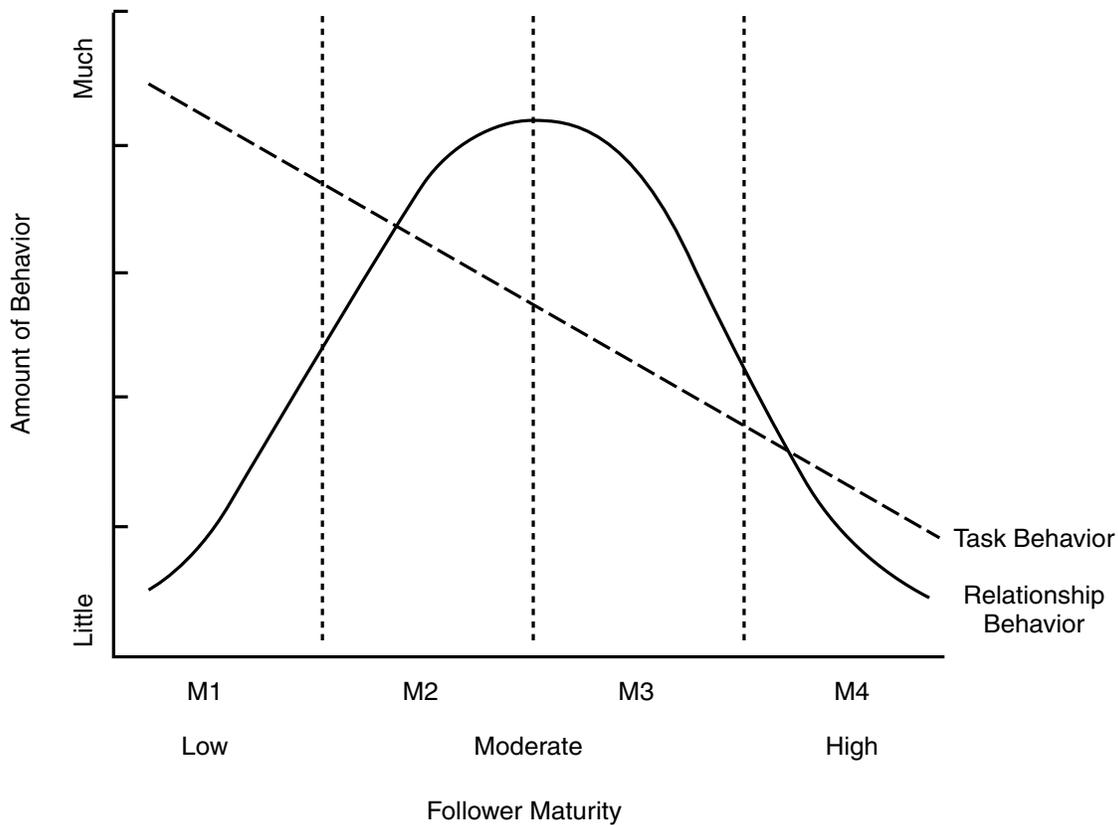


FIGURE 8-5 Prescribed Level of Behavior in the Situational Leadership Theory.

For a low-maturity subordinate (M1), the leader should use substantial task-oriented behavior and be directive in defining roles, clarifying standards and procedures, and monitoring progress on attainment of objectives. As subordinate maturity increases up to a moderate level (M2 and M3), the leader can decrease the amount of task-oriented behavior and provide more relations-oriented behavior. The leader should act supportive, consult with the subordinate, and provide praise and attention. For a high-maturity subordinate (M4), the leader should use a low level of task-oriented and relations-oriented behaviors. This type of subordinate has the ability to do the work without much direction or monitoring by the leader, and the confidence to work without much supportive behavior by the leader.

According to Hersey and Blanchard, the maturity level of a subordinate can be influenced by developmental interventions. For example, the leader and subordinate may negotiate an agreement regarding the delegation of additional responsibilities and how the leader will help the subordinate accomplish the goals set for these responsibilities. This process, called “contingency contracting,” is similar to the role-making process described in the leader-member exchange (LMX) theory (see Chapter 5). How long it takes to increase the subordinate’s maturity depends on the complexity of the task and the skill and confidence of the subordinate. There is no set formula, and it may take as little as a few days or as long as a few years to advance a subordinate from low to high maturity on a given task. Hersey and Blanchard recognized that subordinate maturity may also regress, requiring a flexible adjustment of the leader’s behavior. For example, a highly motivated subordi-

nate may become apathetic after a personal tragedy, which would require closer supervision and a developmental intervention designed to boost maturity back up to the former high level.

Evaluation of the Theory

Even though this theory has been used in many management development programs, not many studies have been conducted to directly evaluate the theory (e.g., Blank, Weitzel, & Green, 1990; Fernandez & Vecchio, 1997; Goodson, McGee, & Cashman, 1989; Hambleton & Gumpert, 1982; Norris & Vecchio, 1992; Vecchio, 1987). A few studies found support for the proposition that more directive supervision is needed for subordinates who have low ability and confidence. However, there was little evidence that using the contingent pattern of task and relations behavior prescribed by the theory will make leaders more effective. The studies designed to test the theory did not examine the effect of developmental interventions. Most of the other research on task and relations behavior (see Chapter 3) provides stronger support for the leadership model proposed by Blake and Mouton, which specifies that a relatively high level of both task and relations behavior is optimal as long as the specific types of behavior are appropriate for the situation.

Conceptual weaknesses limit the utility of situational leadership theory and help to explain the lack of support for it in the research. Leadership behavior is not defined in a clear and consistent way from quadrant to quadrant, and sometimes task and relations behaviors are defined in terms of decision styles such as autocratic telling, consulting, and delegating (Graeff, 1983). The model lacks a clear explanation of the process by which leader behavior influences subordinate performance. Maturity is a composite of diverse elements (task complexity, subordinate confidence, ability, and motivation), and the procedure used to weight and combine them is highly questionable (Barrow, 1977). For example, the assumption that a subordinate is less mature if skilled but unmotivated than if motivated but unskilled is doubtful. It is easier to explain leadership effectiveness when the components of maturity are conceptualized as distinct variables. Hersey and Blanchard acknowledge that leaders can influence some components of maturity with developmental interventions, and it is more appropriate to conceptualize subordinate ability and motivation as intervening variables in a model with reciprocal causality than as exogenous situational variables. Finally, the theory fails to consider other situational variables that are important for determining the appropriate pattern of leadership behavior.

Despite its deficiencies, the theory has made some positive contributions to our understanding of dyadic leadership. One contribution was the emphasis on flexible, adaptive behavior, which has become a central tenet of some recent theory and research. Hersey and Blanchard pointed out that it is essential to treat different subordinates differently, and to vary behavior as the situation changes. Moreover, they advanced the proposition that leaders should be aware of opportunities to build the skills and confidence of subordinates rather than assuming that a subordinate with deficiencies in skill or motivation must forever remain a “problem employee.”

Leadership Substitutes Theory

Kerr and Jermier (1978) developed a model to identify aspects of the situation that reduce the importance of leadership by managers and other formal leaders. The theory makes a distinction between two kinds of situational variables: substitutes and neutralizers. Substitutes make leader behavior unnecessary and redundant. They include any characteristics of the subordinates, task, or organization that ensure subordinates will clearly understand their roles, know how to do the work, be highly motivated, and be satisfied with their jobs. Neutralizers are any characteristics of the task or organization that prevent a leader from acting in a specified way or that nullify the effects of the leader's actions. For example, a leader's lack of authority to reward effective performance limits the leader's use of contingent reward behavior, whereas subordinate lack of interest in an incentive offered by the leader is a condition that makes the behavior pointless.

The theory does not explicitly identify intervening variables, but two of them (role clarity and task motivation) are implicit in the assumptions of the model. As noted by Howell and colleagues (1990, p. 23): “. . . leadership substitutes focus on whether subordinates are receiving needed task guidance and incentives to perform without taking it for granted that the formal leader is the primary supplier.” In effect, substitutes are aspects of the situation that cause intervening variables to be at optimal levels, whereas neutralizers are constraints that prevent or discourage the leader from doing anything to improve existing deficiencies in intervening variables.

In the initial version of the model, Kerr and Jermier (1978) were mostly concerned with identifying substitutes and neutralizers for supportive and instrumental leadership. Supportive leadership is similar to consideration, and instrumental leadership is similar to initiating structure. A preliminary list of substitutes and neutralizers for these broad behavior categories is shown in Table 8-2. According to Kerr and Jermier, various attributes of the subordinates, the task, and the organization may serve as substitutes or neutralizers for leader behavior.

Subordinate Characteristics

Little direction is necessary when subordinates have extensive prior experience or training, because they already possess the skills and knowledge to know what to do and how to do it. For example, medical doctors, airline pilots, accountants, electricians, and other professionals do not require much supervision and often do not want it. Likewise, professionals who are internally motivated by their values, needs, and ethics do not need to be encouraged by the leader to do high-quality work.

The attractiveness of various organizational rewards depends in part on the needs and personality of subordinates. Indifference toward rewards controlled by the manager serves as a neutralizer of both supportive and instrumental behavior by the manager. For example, subordinates who desire more time off with their family will not be motivated by the offer of more money for working extra hours.

Task Characteristics

Another substitute for instrumental leadership is a simple, repetitive task. Subordinates can quickly learn the appropriate skills for this type of task without

TABLE 8-2 Substitutes and Neutralizers for Supportive and Instrumental Leadership

Substitute or Neutralizer	Supportive Leadership	Instrumental Leadership
A. Subordinate Characteristics:		
1. Experience, ability, training	Substitute	
2. Professional orientation	Substitute	Substitute
3. Indifference toward rewards	Neutralizer	Neutralizer
B. Task Characteristics:		
1. Structured, routine task		Substitute
2. Feedback provided by task		Substitute
3. Intrinsically satisfying task	Substitute	
C. Organization Characteristics:		
1. Cohesive work group	Substitute	Substitute
2. Low position power	Neutralizer	Neutralizer
3. Formalization (roles, procedures)		Substitute
4. Inflexibility (rules, policies)		Neutralizer
5. Dispersed subordinate work sites	Neutralizer	Neutralizer

Based on Kerr and Jermier (1978)

extensive training and direction by the leader. When the task provides automatic feedback on how well the work is being performed, the leader does not need to provide much feedback. For example, one study found that workers in a company with networked computer systems and computer integrated manufacturing did not need much supervision because they were able to obtain feedback about productivity and quality directly from the information system, and they could get help in solving problems by asking other people in the network (Lawler, 1988).

If the task is interesting and enjoyable, subordinates may be sufficiently motivated by the work itself without any need for the leader to encourage and inspire them. In addition, a task that is interesting and enjoyable may serve as a substitute for supportive leadership with regard to ensuring a high level of job satisfaction.

Group and Organization Characteristics

In organizations with detailed written rules, regulations, and policies, little direction is necessary once the rules and policies have been learned by subordinates. Rules and policies can serve as a neutralizer as well as a substitute if they are so inflexible that they prevent a leader from making changes in job assignments or work procedures to facilitate subordinate effort. Supportive and instrumental leader behaviors are neutralized when subordinates are geographically dispersed and have only infrequent contact with their leader, as in the case of many sales representatives. An automatic reward system such as commissions or gain sharing can substitute for a leader's use of rewards and punishments to motivate subordinates. Limited position power or a strong labor union tends to neutralize a manager's use of rewards and punishments to motivate subordinates.

Another substitute for supportive leadership is a highly cohesive work group in which subordinates obtain psychological support from each other when needed. Group cohesiveness may substitute for leadership efforts to motivate subordinates if social pressure exists for each member to make a significant contribution to the group task. On the other hand, cohesiveness may serve as a neutralizer if relations with management are poor, and social pressure is exerted to restrict production.

Implications for Improving Leadership

Howell and colleagues (1990) contend that some situations have so many neutralizers that it is difficult or impossible for any leader to succeed. In this event, the remedy is not to replace the leader or provide more training, but rather to change the situation. One approach is to make the situation more favorable for the leader by removing neutralizers. Another approach is to make leadership less important by increasing substitutes.

Kerr and Jermier (1978) suggest the interesting possibility that substitutes may be increased to the point where leaders are altogether superfluous. However, it is important to remember that their model was designed to deal only with substitutes for leadership behavior by a formal leader. For many substitutes, behavior by the formal leader is merely replaced by similar leadership behavior carried out by peers or other informal leaders. Early behavior research demonstrated that leadership functions may be shared among members of a group, rather than being performed entirely by a single formal leader (Bowers & Seashore, 1966; Slater, 1955). Research on self-managed teams has verified that members can assume responsibility for many of the leadership functions formerly performed by an appointed manager. However, even self-managed teams usually have an internal coordinator. Recent research suggests that it is also desirable to have an external leader to perform leadership functions that involve relationships with the larger organization (see Chapter 11).

Research on the Theory

The empirical research has found support for some aspects of the theory, but other aspects have not been tested or supported (e.g., Howell & Dorfman, 1981, 1986; Pitner, 1986; Podsakoff, Niehoff, MacKenzie, & Williams, 1993). A comprehensive meta-analysis of the many studies on potential substitutes (Podsakoff et al., 1995) found little evidence that situational variables moderate the relationship between leader behavior and subordinate motivation or satisfaction. However, critics of this research have pointed out that many of the studies used a weak research design and questionable analyses for detecting the effects of moderator variables (e.g., Dionne, Yammarino, Atwater, & James, 2002; Villa, Howell, Dorfman, & Daniel, 2003).

The research provides stronger evidence that situational variables can directly affect dependent variables such as subordinate satisfaction or motivation. McIntosh (1988) proposed that much of the evaluation research on substitutes for leadership emphasized the wrong aspects of the theory, and researchers should pay more attention

to the direct effect of situational variables on criterion variables (substitutes) and on leader behavior (constraints). The limitations of research on leadership substitutes also apply to much of the research on other situational theories, and this subject will be discussed later in the chapter.

Conceptual Weaknesses

The theory has several conceptual weaknesses. It does not provide a detailed rationale for each substitute and neutralizer in terms of causal processes involving explicit intervening variables. A description of explanatory processes would help differentiate between substitutes that reduce the importance of an intervening variable and substitutes that involve leadership behavior by people other than the leader. For example, the importance of subordinate ability for group performance can be reduced by technological improvements such as automation and artificial intelligence. A quite different situation is one in which ability remains important, but the task skills needed by subordinates are enhanced by someone besides the formal leader (e.g., coworkers, outside trainers).

Another source of conceptual ambiguity involves the failure to differentiate between direct actions by the leader to improve a dependent variable, and actions to improve a substitute that affects the dependent variable and will accomplish the same purpose. For example, instead of providing coaching to an inexperienced subordinate, the leader can arrange for the subordinate to acquire the necessary skills from a highly skilled coworker or by attending training courses. A leader who is able to strengthen substitutes can reduce the future need for some types of leadership behavior. A leader can also take actions to reduce constraints that prevent the use of effective behaviors and block neutralizers that undermine the effects of a potentially relevant behavior. These aspects of leadership are described more explicitly in the multiple-linkage model described later in this chapter.

Another conceptual limitation is the use of broadly defined behavior categories such as supportive and instrumental leadership. It is easier to identify substitutes and neutralizers for more specific types of leadership behaviors, as is done in the multiple-linkage model. Finally, leader substitutes theory should be extended to include other important aspects of leadership behavior that were not recognized at the time the theory was proposed.

Summary

The complexity and ambiguity of the theory makes it difficult to test. Given the methodological limitations in most of the prior research on leadership substitutes, it is premature to assess the theory's validity. Perhaps the greatest contribution was to provide a different perspective on leadership. In the 1970s when this theory was formulated, most leadership theories emphasized the role of formal leaders as the primary determinant of subordinate motivation and satisfaction. Leader substitutes theory de-emphasized the importance of formal leaders by showing how their influence can be replaced by work design, reward systems, informal peer leadership, and

self-management. As such, the theory helped to encourage more of a systems perspective on leadership processes in groups and organizations.

Multiple-Linkage Model

The multiple-linkage model (Yukl, 1981, 1989) builds upon earlier models of leadership and group effectiveness, including path-goal theory, leadership substitutes theory, and the Vroom-Yetton normative decision theory. The four types of variables include managerial behaviors, intervening variables, criterion variables, and situational variables. The model describes in a general way the interacting effects of managerial behavior and situational variables on the intervening variables that determine the performance of a work unit. The causal relationships among major types of variables are depicted in Figure 8-6. Situational variables in the model exert influence at three points: (1) they constrain managerial behavior and moderate its effects; (2) they directly influence intervening variables; and (3) they determine the relative importance of the intervening variables.

Intervening Variables

To understand how a leader can influence the performance of a group or organizational subunit, it is helpful to examine intervening variables that determine group performance. The six intervening variables in the model are based on earlier research and theory on determinants of individual and group performance (e.g., Hackman, Brousseau, & Weiss, 1976; Likert, 1967; McGrath, 1984; Porter & Lawler, 1968). Unlike

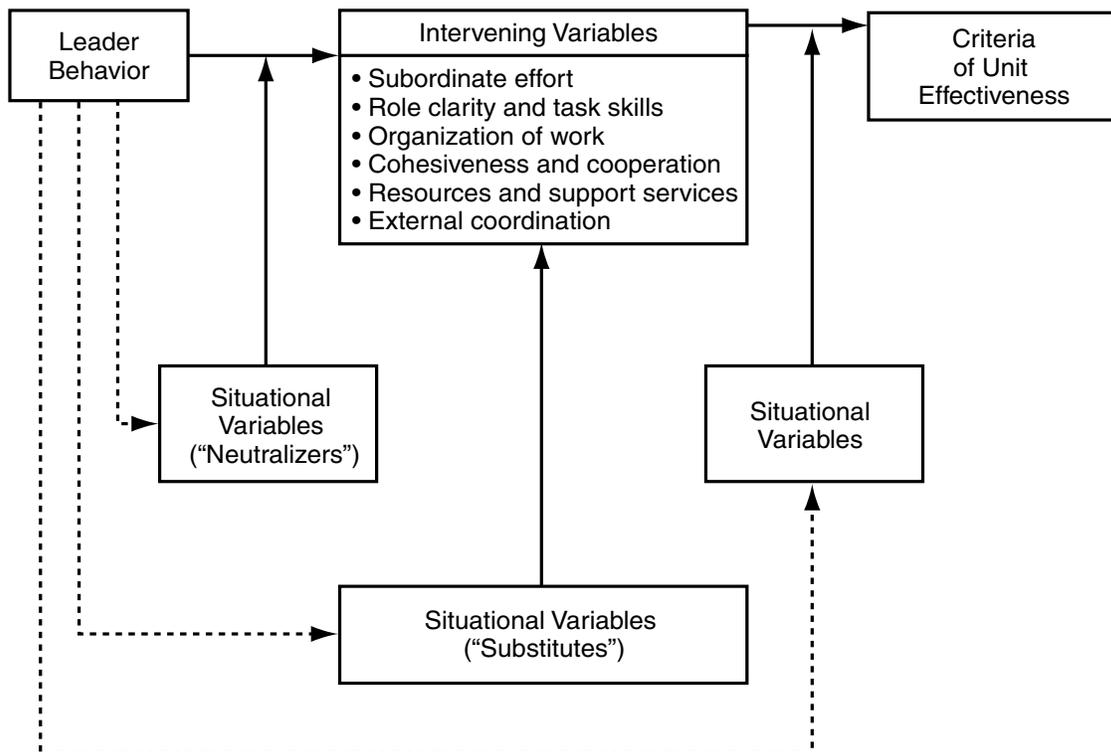


FIGURE 8-6 Causal Relationships in the Multiple Linkage Model.

most other situational theories, the intervening variables are defined primarily at the group level, as in theories of team leadership (see Chapter 11).

1. *Task commitment.* The extent to which unit members strive to attain a high level of performance and show a high degree of personal commitment to unit task objectives.
2. *Ability and role clarity.* The extent to which unit members understand their individual job responsibilities, know what to do, and have the skills to do it.
3. *Organization of the work.* The extent to which effective performance strategies are used to attain unit task objectives and the work is organized to ensure efficient utilization of personnel, equipment, and facilities.
4. *Cooperation and mutual trust.* The extent to which group members trust each other, share information and ideas, help each other, and identify with the work unit.
5. *Resources and support.* The extent to which the group has the budgetary funds, tools, equipment, supplies, personnel, and facilities needed to do the work, and necessary information or assistance from other units.
6. *External coordination.* The extent to which activities of the work unit are synchronized with the interdependent activities in other parts of the organization and other organizations (e.g., suppliers, clients, joint venture partners).

The intervening variables interact with each other to determine the effectiveness of a group or organizational subunit. A serious deficiency in one intervening variable may lower group effectiveness, even though the other intervening variables are not deficient. The greater the relative importance of a particular intervening variable, the more group performance will be reduced by a deficiency in this variable. The relative importance of the intervening variables depends on the type of work unit and other aspects of the situation. Table 8-3 lists aspects of the situation that make intervening variables especially important.

Situational Influences on Intervening Variables

The situation can influence the intervening variables independently of anything done by the leader. This aspect of the model is similar to Kerr and Jermier's "substitutes." In a very favorable situation, some of the intervening variables may already be at their maximum short-term level, making the job of the leader much easier.

Two situational variables that influence task commitment are the formal reward system and the intrinsically motivating properties of the work itself. Member commitment to perform the task effectively will be greater if the organization has a reward system that provides attractive rewards contingent on performance, as in the case of many sales jobs. Intrinsic motivation is likely to be high for subordinates if the work requires varied skills, is interesting and challenging, and provides automatic feedback about performance.

Situational variables that affect the ability of group members include the recruitment and selection system of the organization and the prior training and experience of the members. An organization with effective recruiting and selection procedures and high salaries is more likely to attract qualified people with high ability. Ability is likely to be higher also for professionals and people in skilled trades who receive extensive training prior to joining the organization.

Role clarity is affected by task structure, prior member experience, and external dependencies. Group members are likely to have a better understanding of role

TABLE 8-3 Conditions Affecting the Intervening Variables in the Multiple-Linkage Model

Intervening Variable	Conditions Where Already High	Situations Where Most Important
Subordinate Effort and Commitment	<ul style="list-style-type: none"> • Interesting, challenging, intrinsically motivating task. • Subordinates have strong work ethic values. • Crisis where failure would be costly for subordinates. 	<ul style="list-style-type: none"> • Complex, labor-intensive work requiring high subordinate initiative and persistence. • High exposure task for which mistakes are very costly.
Subordinate Ability Role Clarity	<ul style="list-style-type: none"> • Subordinates have extensive prior training and experience. • Organization provides detailed formal rules and procedures. • Work is highly automated. 	<ul style="list-style-type: none"> • Work unit has complex, difficult tasks with unique aspects. • Work requires a high degree of technical skill by subordinates. • High exposure task for which mistakes are very costly. • Frequent changes in priorities or schedules due to clients and users. • Work is subject to unpredictable disruptions and crises.
Cooperation and Teamwork	<ul style="list-style-type: none"> • Group has stable, homogeneous, compatible membership. • Members have shared goals consistent with task objectives. • Work unit has strong traditions that evoke pride of membership. 	<ul style="list-style-type: none"> • Task roles in the work unit are highly interdependent. • Subordinates share scarce equipment or limited facilities. • Subordinates work together in close proximity for long time.
Organization of Work and Performance Strategies for it	<ul style="list-style-type: none"> • Organization specifies optimal way to structure the work. • Subordinates have extensive prior training and experience. 	<ul style="list-style-type: none"> • Work unit has a complex and difficult mission. • Work unit has several diverse tasks (need coordination). • High exposure task for which mistakes are very costly.
Resources needed to do the work	<ul style="list-style-type: none"> • Organization provides adequate resources as needed. • Organization has good inventory control system for materials. 	<ul style="list-style-type: none"> • The work requires large amounts of scarce resources. • Work unit is highly dependent on unreliable sources of supply.
External Coordination	<ul style="list-style-type: none"> • Organization has structural mechanisms for achieving lateral coordination. • External coordination is done by higher management or other people in organization. 	<ul style="list-style-type: none"> • Work unit has high lateral interdependence with other units in the same organization. • Frequent changes in priorities or schedules due to client demands • Work unit is highly dependent on unreliable sources of supply.

requirements when the task is simple, they have considerable experience doing the work, or the organization has elaborate rules and regulations dictating how the work should be done and subordinates are familiar with them. Conditions that increase role ambiguity are as follows: (1) the task has multiple performance criteria that are somewhat incompatible with each other and priorities are unclear; (2) the task requires continuous coordination and mutual adjustment among members; (3) the nature of the work or technology is changing, requiring new skills and procedures; (4) a crisis or emergency creates confusion; and (5) work unit operations are frequently affected by changes in policies, plans, or priorities determined by higher management or clients.

Situational variables that affect work group organization include the type of technology used to do the work and the competitive strategy of the organization. Work roles and procedures are more likely to be imposed by top management when the task is simple and repetitive than when it is complex and variable. However, standard procedures imposed by the organization to maximize efficiency are only a substitute for leader planning and organizing when they result in optimal performance strategies, which is not always true even for highly structured tasks. There are many examples of organizations in which the operating workers find better ways to do the work than the staff experts.

Cooperation and teamwork are influenced by the size of the group, the stability of membership, the similarity among members in values and background, the reward system, and the organization of the work. More cohesiveness and cooperation are likely in small groups with a stable, homogeneous membership. Less cooperation is likely when group members have highly specialized jobs with different task objectives, or when the reward system fosters intense competition among individuals. In view of the prevalence of conflict in organizations, it is likely that the team building will continue to be an important function for most leaders.

The adequacy of resources needed to do the work is influenced by the organization's formal budgetary systems, procurement systems, and inventory control systems, as well as by economic conditions at the time. An adequate level of resources and support is more likely to be provided when the organization is prosperous and growing than when the organization is in decline and faces severe resource shortages. Because few organizations have abundant extra resources in today's competitive world, it is likely that the role of obtaining resources will continue to be important for most leaders.

External coordination is affected by the formal structure of the organization. High lateral interdependence increases the amount of coordination needed among subunits of an organization. Sometimes this coordination is facilitated by special integrating mechanisms such as integrator positions and cross-functional committees (Galbraith, 1973; Lawrence & Lorsch, 1967). Dependency on outsiders such as clients or subcontractors increases the need for external coordination, and sometimes this coordination is facilitated by people in special liaison positions. Nevertheless, structural mechanisms to facilitate external coordination are unlikely to entirely substitute the need for this leadership role.

Short-Term Actions to Correct Deficiencies

A basic proposition of the theory is that leader actions to correct any deficiencies in the intervening variables will improve group performance. A leader who fails to recognize opportunities to correct deficiencies in key intervening variables, who recognizes

the opportunities but fails to act, or who acts but is not skilled will be less than optimally effective. An ineffective leader may make things worse by acting in ways that increase rather than decrease the deficiency in one or more intervening variables. For example, a leader who uses coercive influence tactics may reduce subordinate effort.

Table 8-4 summarizes possible short-term actions to deal with deficiencies in the intervening variables. Leaders may influence group members to work faster or do better quality work (e.g., by offering special incentives, by giving an inspiring talk about the importance of the work, by setting challenging goals). Leaders may increase member ability to do the work (e.g., by showing them better methods for doing the work, by clearing up confusion about who is responsible for what). Leaders may organize and coordinate activities in a more efficient way (e.g., by finding ways to reduce delays, duplication of effort, and wasted effort; by matching people to tasks better; by finding better ways to use people and resources). Leaders may obtain resources needed immediately to do the work (e.g., information, personnel, equipment, materials, supplies). Leaders may act to improve external coordination by meeting with outsiders to plan activities and resolve conflicting demands on the work unit.

The model does not imply that there is only one optimal pattern of managerial behavior in any given situation. Leaders usually have some choice among intervening variables in need of improvement, and different patterns of behavior are usually possible to correct a particular deficiency. The overall pattern of leadership behavior by the designated leader and other group members is more important than any single action. In this respect, the model is similar to Stewart's (1976) "choices" (see Chapter 2). However, a leader whose attention is focused on intervening variables that are not deficient or not important will fail to improve unit performance.

Some aspects of the situation limit a leader's discretion in making changes and reacting to problems. These influences are similar to Stewart's (1976) "constraints" and Kerr and Jermier's (1978) "neutralizers." The extent to which a leader is capable of doing something in the short run to improve any of the intervening variables is limited by the leader's position power, organizational policies imposed by top management, the technology used to do the work, and legal-contractual restrictions (e.g., labor-management agreements, contracts with suppliers, requirements mandated by government agencies). Constraints may prevent a leader from rewarding or punishing members, changing work assignments or procedures, and procuring supplies and equipment.

Long-Term Effects on Group Performance

Over a longer period of time, leaders can make larger improvements in group performance by modifying the situation to make it more favorable. Effective leaders act to reduce constraints, increase substitutes, and reduce the importance of intervening variables that are not amenable to improvement. In addition, effective leaders take actions that have direct but delayed effects on the intervening variables. The indirect effects, shown by the dotted lines in Figure 8-6, occur concurrently with continued efforts to make immediate improvements in the intervening variables. These indirect effects of leaders usually involve sequences of related behaviors carried out over a longer time period. The effects take longer to be felt, but they are often more important for the organization. A similar distinction between direct and indirect effects has been made by other theorists as well (e.g., Hunt, 1991; Lord & Mahar, 1991), and it reflects the systems perspective of leadership that seems to be gaining favor.

TABLE 8-4 Leader Actions to Deal with Deficiencies in Intervening Variables**Subordinates are apathetic or discouraged about the work.**

- Set challenging goals and express confidence subordinates can attain them.
- Articulate an appealing vision of what the group could accomplish or become.
- Use rational persuasion and inspirational appeals to influence commitment.
- Lead by example.
- Use consultation and delegation.
- Provide recognition.
- Reward effective behavior.

Subordinates are confused about what to do or how to do their work.

- Make clear assignments.
- Set specific goals and provide feedback about performance.
- Provide more direction of ongoing activities.
- Provide instruction or coaching as needed.
- Identify skill deficiencies and arrange for necessary skill training.
- Recruit and hire skilled people to work in unit.

The group is disorganized and/or it uses weak performance strategies.

- Develop plans to accomplish objectives.
- Identify and correct coordination problems.
- Reorganize activities to make better use of people, resources, and equipment.
- Identify and eliminate inefficient and unnecessary activities.
- Provide more decisive direction of ongoing activities in a crisis.

There is little cooperation and teamwork among members of the group.

- Emphasize common interests and encourage cooperation.
- Encourage constructive resolution of conflict and help mediate conflicts.
- Increase group incentives and reduce competition.
- Use symbols and rituals to build identification with the work unit.
- Use team-building activities.

The group has inadequate resources to do the work.

- Requisition or borrow specific resources needed immediately for the work.
- Find more reliable or alternative sources of supplies.
- Ration available resources if necessary.
- Initiate improvement projects to upgrade equipment and facilities.
- Lobby with higher authorities for a larger budget.

External coordination with other subunits or outsiders is weak.

- Network with peers and outsiders to develop more cooperative relationships.
- Consult more with peers and outsiders when making plans.
- Keep peers and outsiders informed about changes.
- Monitor closely to detect coordination problems quickly.
- Meet with peers and outsiders to resolve coordination problems.
- Negotiate favorable agreements with peers and outsiders for group outputs.

More research has been conducted on short-term, reactive behaviors by leaders than on long-term, proactive behaviors by leaders, and the latter are still difficult to classify in any meaningful way. Useful insights are provided by some of the descriptive research reviewed in Chapter 2. Stewart (1976) described how managers exploit different opportunities to improve conditions, Mintzberg (1973) described how managers initiate improvement projects, Kanter (1982) described how middle managers get innovations accepted, Kotter (1982) described how managers get long-term aspects of their agenda implemented, and Gabarro (1985) described how CEOs turn around failing organizations. The literature describing how leaders change the mission or basic strategy of an organization and influence the culture of the organization is reviewed in more detail in Chapters 10 and 12.

Some examples of possible actions a leader may take to improve the situation are as follows (see also Table 8-4):

- Gain more control over acquisition of resources necessary to do the work by cultivating better relationships with suppliers, finding alternative sources, and reducing dependence on unreliable sources.
- Gain more control over the demand for the unit's products and services by finding new customers, opening new markets, advertising more, and modifying the products or services to be more acceptable to clients and customers.
- Initiate new, more profitable activities for the work unit that will make better use of personnel, equipment, and facilities.
- Initiate long-term improvement programs to upgrade personnel, equipment, and facilities in the work unit, such as by replacing old equipment, establishing training programs, and reconstructing facilities.
- Modify the formal structure of the work unit to solve chronic problems and reduce demands on the leader for short-term troubleshooting, such as by redefining authority relationships, centralizing (or decentralizing) some decision making, creating (or eliminating) positions, modifying information systems, and simplifying (or eliminating) rules and standard procedures.
- Alter the culture of the organization to emphasize values, beliefs, and norms that are internalized sources of motivation to excel, learn, and cooperate.

Evaluation of the Multiple-Linkage Model

The multiple-linkage model is more complex and comprehensive than earlier theories, because it includes more of the relevant intervening variables, a wider range of leader behaviors, and more situational variables. It was one of the first contingency theories to emphasize leadership processes at the group level rather than the dyadic level.

The model has several conceptual weaknesses. It does not specify how different types of leader behavior interact with each other in their effects on intervening variables. The long-term actions of managers are described only in general terms, and specific hypotheses about these behaviors are needed. The interaction among situational variables has not been specified explicitly, and the theory fails to identify common configurations of them. Thus, the multiple-linkage model is still more a general conceptual framework than a refined theory.

The complexity of the model makes it difficult to test in a single study. Indirect support for some aspects of the model is provided by relevant research on other

leadership theories that include similar aspects of leadership behavior. However, relatively few studies on leader behavior included intervening variables, and as already noted the studies on situational variables yielded weak, inconsistent results. The growing interest in testing team leadership models (see Chapter 11) should provide evidence that is also relevant for evaluating the multiple-linkage model.

Cognitive Resources Theory

A more recent situational model developed by Fiedler and his colleagues (Fiedler, 1986; Fiedler & Garcia, 1987) deals with the cognitive abilities of leaders. This theory examines the conditions under which cognitive resources such as intelligence and experience are related to group performance. It is an important research question, because organizations use measures of prior experience and intelligence for selecting managers. According to cognitive resources theory, the performance of a leader's group is determined by a complex interaction among two leader traits (intelligence and experience), one type of leader behavior (directive leadership), and two aspects of the leadership situation (interpersonal stress and the nature of the group's task).

Propositions

The primary causal relationships in cognitive resources theory are depicted in Figure 8-7. According to the theory, interpersonal stress for the leader moderates the relation between leader intelligence and subordinate performance. Stress may be due to a boss who creates role conflict or demands miracles without providing necessary resources and support. Other sources of stress include frequent work crises and serious conflicts with subordinates. Under low stress, high intelligence results in good plans and decisions. In this situation, a highly intelligent leader relies on intellectual ability to analyze the problem and find the best solution. In contrast, under high stress, there is no relationship (or a negative relationship) between leader intelligence and decision quality. The theory provides several possible explanations why highly intelligent leaders sometimes make terrible task decisions when under stress. The most plausible explanation is that stress interferes with information processing and decision making. Under high stress, a leader is more likely to be distracted and unable to focus on the task. Intelligence provides no advantage, because it cannot be applied. The leader may withdraw and let the group drift, or the leader may display nonproductive behavior that disrupts the group processes.

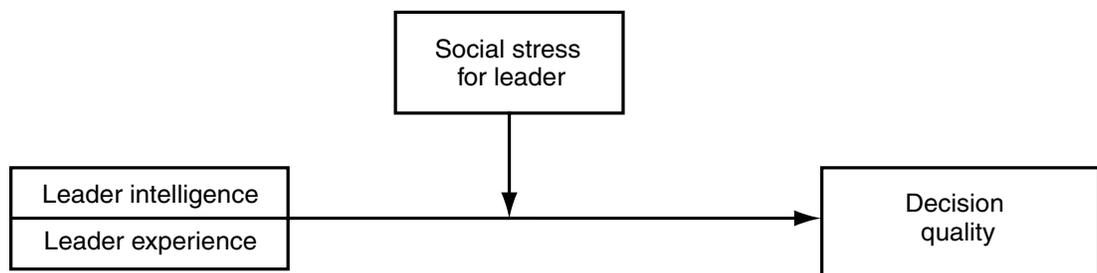


FIGURE 8-7 Primary Causal Relationships in the Cognitive Resources Theory.

Interpersonal stress for the leader also moderates the relationship between leader experience and subordinate performance. Experience is usually measured in terms of time on the job, and it is assumed to result in habitual behavior patterns for effectively dealing with task problems. It is also assumed that people under stress tend to deal with task problems by reverting to previously learned behavior rather than by treating them as new problems. Experience will be positively related to the quality of leader decisions under high interpersonal stress, but it is not related to decision quality under low stress. Presumably, experienced leaders rely mostly on intelligence under low stress, and they rely mostly on experience under high stress. Leaders with little experience rely on intelligence in both situations.

The theory also describes one aspect of leader behavior that mediates the relationship between a leader's cognitive resources and group performance. This part of the theory is similar to some parts of the Vroom-Yetton (1973) normative decision model (see Chapter 4). Leader intelligence and expertise contribute to group performance only when the leader is directive and subordinates require guidance to perform the task effectively. The theory assumes that intelligent leaders devise better plans and action strategies for doing the work than nonintelligent leaders, especially when the task is complex. The theory also assumes that a leader's plans and decisions are communicated to subordinates through directive behavior. If the leader has low ability but group members have high ability and also share the leader's task objectives, then a nondirective (participative) leader is more effective than a directive (autocratic) leader for a complex task. For a simple, routine task that subordinates already know how to perform, no relationship is likely to occur between leader intelligence and group performance, even for directive leaders.

Fiedler has attempted to link cognitive resource theory to the least preferred coworker (LPC) contingency model by proposing that leader LPC scores may be the primary determinant of directive behavior in high and low stress situations. However, little research has been conducted to explore this possibility.

Research on Cognitive Resources Theory

Evidence supporting the proposition that stress moderates the effect of intelligence and experience was found in a study of Coast Guard officers (Potter & Fiedler, 1981) and a study of fire department officers (Frost, 1983). However, only one study examined possible reasons why stress moderates the relation of leader intelligence and experience to effectiveness. Gibson, Fiedler, and Barrett (1993) reanalyzed data from an earlier study on three-person groups of ROTC cadets with a creative task. Under low stress conditions, intelligence was positively related to the production of creative ideas by leaders and followers alike, and the more intelligent leaders had more productive groups. Under high stress conditions, leader intelligence was not related to the production of creative ideas by the leader, and it was negatively related to the production of creative ideas by followers. Intelligent leaders talked more, but they tended to ramble and contributed few useful ideas. By dominating the discussion, these leaders prevented members from contributing more. The net effect was that under high stress, the more intelligent leaders had less productive groups.

The proposition that intellectual ability is related more to performance for directive leaders than for nondirective leaders was generally supported in five earlier

studies reported by Fiedler and Garcia (1987, p. 161) and in three subsequent studies (Blyth, 1987; Murphy, Blyth, & Fiedler, 1992; Vecchio, 1990). This proposition from cognitive resource theory also is supported by some studies conducted to evaluate the Vroom-Yetton model (see Chapter 4).

Limitations of the Research

It is too early to reach any conclusions about the utility of the theory. Results from the validation research are inconsistent across studies, methodological problems make it difficult to interpret some of the results, and some aspects of the theory have not been adequately tested (Fiedler, 1992; Gibson, 1992; Vecchio, 1990). Several methodological weaknesses have been identified.

Most of the studies cited by Fiedler and Garcia (1987) were conducted to test the LPC contingency model and only later reanalyzed to test cognitive resource theory. These correlational studies do not provide a complete test of the propositions in the theory (Vecchio, 1990). A better research design would be an experiment comparing outcomes for various combinations of intelligence and experience under stress and nonstress conditions.

The most controversial aspect of the theory is the idea that leader effectiveness is predicted by intelligence in low stress conditions and by experience in high stress conditions. The theory provides some possible reasons for poor-quality decisions under stress, but the explanations have not been verified. More studies with measures of mediating processes are needed.

Most of the validation studies relied on surrogate measures of experience, such as time on the job, rather than using a direct measure of relevant job expertise. Bettin and Kennedy (1990) found that the leadership performance of Army officers was predicted by the amount of relevant prior experience, but not by time in present position, time in the service, or number of previous positions. Similar results were found by Avery and colleagues (2003) for head coaches in the National Basketball Association. Another problem with the use of time in position as a measure of experience is that this measure may be contaminated by extraneous factors related to stress. One alternative explanation for Fiedler's results is that "experienced" leaders have more stress tolerance, because leaders who could not handle the stress already quit or were dismissed. Another rival explanation is that "experienced" leaders have had more time to develop a network of support relationships that will help them under stressful conditions.

Conceptual Weaknesses

The cognitive resources theory also has some conceptual weaknesses that limit its utility for explaining effective leadership. A major trait variable in the theory is general intelligence. No explicit rationale is provided for use of general intelligence rather than specific cognitive skills. It is likely that the theory would be improved by identifying specific aspects of intellectual ability relevant to the task (Vecchio, 1990).

There is only one leadership behavior in the theory, and it is too general to capture the complexities found in earlier research on participative leadership. The Vroom-Yetton model described in Chapter 4 provides a much better explanation of the effects of participative decision procedures under different conditions. Cognitive resources

theory would be improved by a more precise explanation of the influence of cognitive resources on leader behavior and effectiveness.

General Evaluation of Contingency Theories

Table 8-5 lists the major features of the contingency theories described in this chapter and the Vroom and Yetton (1973) normative decision model described in Chapter 4. The table makes it easier to compare the theories with respect to content and validation. All seven theories contain situational moderator variables, but the variety of situational variables is greater in some theories than in others. It seems desirable for a contingency theory to include many relevant aspects of the situation, but to do so makes a theory difficult to test. Mediating variables are helpful to explain how leaders influence subordinate performance, but only three of the theories have explicit mediating (or intervening) variables.

TABLE 8-5 Comparison of Contingency Theories

Contingency Theory	Leader Traits	Leader Behavior	Situational Variables	Intervening Variables	Validation Results
LPC Contingency Model	LPC Score	None	Task structure L-M relations	None	Many studies, some support
Path-Goal Theory	None	Instrumental, supportive, participative, achievement	Many aspects	Expectancies, valences, role ambiguity	Many studies, some support
Situational Leadership Theory	None	Task and Relations	Subordinate maturity	None	Few studies, little support
Leadership Substitutes Theory	None	Instrumental, supportive	Many aspects	None	Few studies, inconclusive
Multiple-Linkage Model	None	Many aspects	Many aspects	Effort, ability, organization, teamwork, resources, external coordination	Few studies, inconclusive
Cognitive Resource Theory	Intelligence & experience	Directive	Stress, group ability	None	Few studies, some support
Normative Decision Theory	None	Decision procedures	Many aspects	Decision quality and acceptance	Many studies, good support

Some behavioral scientists have questioned whether contingency theories such as those reviewed in this chapter have any utility for showing managers how to become more effective. For example, McCall (1977) contends that the hectic pace of managerial work and the relative lack of control over it by managers make it impossible to apply complex theories that specify the optimal behavior for every type of situation. Managers are so busy dealing with problems that they don't have time to stop and analyze the situation with a complicated model. McCall also questions the implicit assumption of most contingency theories that there is a single best way for the manager to act within a given situation. Leaders face an immense variety of rapidly changing situations, and several different patterns of behavior may be equally effective in the same situation. The contingency theories do not provide sufficient guidance in the form of general principles to help managers recognize the underlying leadership requirements and choices in the myriad of fragmented activities and problems confronting them. What may be needed is a theory with both universal elements (e.g., general principles) and situational elements (e.g., guidelines to help identify desirable behaviors for a particular type of situation). However, despite the limitations of the situational theories and research, they serve to remind leaders that it is essential to monitor changes in the situation and adjust their behavior in appropriate ways.

Evaluation of Research on Situational Theories

A contingency theory is supported by a pattern of results that is consistent with the propositions of the theory. If the theory postulates a causal chain of sequential effects from leader behavior to intervening variable to outcomes, the results must be consistent with this explanation. Unfortunately, most of the contingency theories are stated so ambiguously that it is difficult to derive specific, testable propositions. Most of the research provides only a partial test of the theories. In general, the research suffers from lack of accurate measures and reliance on weak research designs that do not permit strong inferences about direction of causality (Korman & Tanofsky, 1975; Schriesheim & Kerr, 1977a). Most studies use a survey, and data on all variables are obtained from the same respondents. Few longitudinal studies have been conducted to examine changes in the situation over time, or relationships that involve delayed effects and reciprocal causality.

Situational moderator variables may involve different types of causal effects, and it is essential for researchers to understand the differences. When a situational variable directly impacts a dependent variable and there is a limit on how much improvement is possible ("ceiling effect"), then high levels of the situational variable will reduce the impact of leader behavior on the dependent variable. For example, coaching by the leader can improve the performance of a subordinate who needs it, but leader coaching will have little effect on a subordinate who is already being coached effectively by peers, or a subordinate who has extensive prior training and experience.

A second type of causal relationship occurs for situational variables that make leader behavior more effective ("enhancers") but do not directly influence the dependent variable. For instance, in the earlier example, the effect of leader coaching on performance by an inexperienced subordinate will be enhanced by relevant leader expertise. This expertise enables the leader to provide better advice, it increases the credibility of the advice, and the subordinate is more likely to follow the advice. A second example is provided by the level of role interdependency in a group, which

increases the need for coordination and enhances the effects of relevant leader actions to improve coordination among members.

A third type of relationship may also occur if a variable conceptualized as a “substitute” is more appropriately treated as a mediator than as a moderator. Using the prior example, subordinate task expertise directly affects subordinate performance, and some researchers would view it as a substitute for leader coaching. However, subordinate expertise also mediates the effects of leader coaching, peer coaching, and prior training on subordinate performance. This type of mediating variable should not be confused with enhancers, or with “true substitutes” that reduce the need for leader behavior but do not mediate its effects. If the researcher only conducts an analysis of moderator effects and does not also test for mediation, the results may not accurately reflect the actual causal relationships. The complex relationships and the different types of situational effects will be difficult to understand unless appropriate causal models are developed and tested with appropriate types of analyses (Howell, Dorfman, & Kerr, 1986; James & Brett, 1984).

Applications for Adaptive Leadership

Despite their deficiencies, the contingency theories and related research provide insights about effective leadership in different situations. The following guidelines, which are summarized in Table 8-6, describe conditions where specific leadership behaviors are likely to increase subordinate satisfaction and performance. Additional situational propositions can be found in other chapters of the book.

- **Maintain situational awareness.**

Situational awareness means understanding aspects of the situation that are relevant for the effectiveness of a manager. It is important to understand the external events and trends that will impact performance and require adjustments in strategy and work processes. It is also important to understand the processes and people within the organization. It is difficult to resolve a problem, initiate a change, or inspire commitment without a clear understanding of the shared values and beliefs that make up the organization culture, the prior events and decisions that determine how the organization got to where it is now, the impact proposed changes could have on work processes and customers, and the political processes that affect major decisions. To become more situationally aware, it is necessary to actively probe beneath surface appearances to learn about prior events, power relationships, interpersonal relationships, informal processes, hidden agendas, and the attitudes and feelings of the people who

TABLE 8-6 Guidelines for Leaders

- Use more planning for a long, complex task.
- Consult more with people who have relevant knowledge.
- Provide more direction to people with interdependent roles.
- Provide more direction and briefings when there is a crisis.
- Monitor a critical task or unreliable person more closely.
- Provide more coaching to an inexperienced subordinate.
- Be more supportive to someone with a very stressful task.

will be involved in a decision or affected by it. Procedures for obtaining and analyzing information about the situation are described in Chapters 3, 10, and 12.

- **Use more planning for a long, complex task.**

A long, complex task is one that involves many interrelated activities performed by a large group of people over a considerable period of time (e.g., weeks or months). Completing the task successfully, on time, with expenditure of minimum resources requires careful planning of the activities. Planning is most useful when the steps necessary to carry out the task are known in advance, and the environment is relatively predictable. Some examples of such activities include a construction project, installation of new equipment, introduction of new information systems, and the design and execution of a training program. The leader should identify the list of necessary activities, determine the optimal sequence for them, estimate when each activity should begin and end, determine who should be responsible for performing each activity, and identify the resources needed for it. When the leader is responsible for managing a simple, routine task that will not take long to complete, a detailed plan is unnecessary.

- **Consult more with people who have relevant knowledge.**

A major prescription of the Vroom-Yetton (1973) model (see Chapter 4) was the need for more participative leadership when the task is complex and unstructured, and subordinates (or team members) have relevant knowledge and creative ideas about how to perform the task. An additional condition for effective use of consultation is goal congruence. The quality of decisions is likely to be improved when the leader consults with people who have both relevant expertise and strong commitment to achieve task objectives. Sometimes it is appropriate to hold meetings to jointly solve problems, and other times it is more appropriate to consult with one or two individuals before making a decision.

- **Provide more direction to people with interdependent roles.**

Role interdependence among group members increases role ambiguity, because it requires frequent mutual adjustments in behavior. A team will not achieve high performance unless the actions of its members are closely coordinated. Even when the individual tasks seem relatively structured, members may be confused about how to make mutual adjustments to coordinate their actions. Confusion is greater when team members lack prior experience in performing a particular task together. Some examples include a newly formed team, an established team that experiences a significant change in membership, or an established team that must perform a new type of task. Such a situation requires ongoing direction to coordinate the interdependent actions of different team members. The amount of direction needed by the leader can be reduced by asking the team to practice its response to a simulated crisis, so that members become accustomed to working together closely and can anticipate each other's behavior. Examples include sports teams (e.g., basketball, ice hockey), rescue teams, combat teams, and teams that operate complex equipment (e.g., airplanes, submarines).

- **Provide more direction and briefings when a crisis occurs.**

The need for more direction is especially great for a team that must react quickly in a coordinated way to cope with a serious crisis or emergency for which it is

unprepared. Knowing how to remain calm and deal with a crisis in a systematic but decisive manner requires a leader with considerable skill and confidence. It is essential for the leader to make a quick but systematic analysis of the situation, organize an appropriate response, direct the actions of group members, and keep subordinates informed about the nature of the crisis and what is being done to deal with it (Torrance, 1954; Yukl & Van Fleet, 1982). In the absence of timely and accurate information, harmful rumors are likely to occur, and people may become discouraged and afraid. A manager can help prevent unnecessary stress for subordinates by interpreting threatening events and emphasizing positive elements rather than leaving people to focus on negatives. When feasible, it is helpful to provide short, periodic briefings about progress in efforts to deal with the crisis.

- **Monitor a critical task or unreliable person more closely.**

Monitoring provides information needed to detect and correct performance problems. More frequent and intensive monitoring is appropriate for a critical task that involves high exposure, so that problems can be detected before they get so bad that they will be costly and difficult to correct. However, the appropriate amount of monitoring depends also on the reliability of the subordinates who are doing the task. The less dependable and competent a subordinate is, the more monitoring is needed. An appropriate form of monitoring in this situation is the use of observation and specific questions about the work. A probing but nonevaluative style of questioning is better than a threatening, critical tone. Questions usually elicit better information if worded in an open-ended way rather than asking for a simple yes-no answer. For example, ask the subordinate to explain what has been done, rather than asking if there are any problems. Subordinates are often afraid to inform their boss about problems, mistakes, and delays, especially when the response is likely to be an angry outburst from the boss. Thus, it is essential to react to information about problems in a constructive, nonpunitive way.

- **Provide more coaching to an inexperienced subordinate.**

When the work is complex and a subordinate is inexperienced at doing it, more instruction and coaching by the leader is needed. Lack of experience is likely for subordinates who are new to the job, but it also occurs when there is a major change in how the work is done (e.g., new technology, reconfigured jobs). A leader with strong expertise can help a person discover the reasons for weak performance. One diagnostic approach is to jointly review step by step how the person carries out the task to determine whether any essential steps are omitted, unnecessary steps are included, or key steps are performed incorrectly. To increase self-reliance and problem solving, it is better to encourage the person to suggest ways to improve performance rather than dictating what needs to be done. Help the person evaluate ideas for improving performance by asking probing questions about them. When appropriate suggest additional things the person should consider to improve performance. If it becomes evident that additional instruction is necessary for a specific aspect of the task, take the person aside to show him or her how to do the work correctly, or ask an experienced coworker to provide this instruction.

- **Be more supportive to someone with a highly stressful task.**

A person who becomes emotionally upset will have more difficulty performing a task successfully, especially if it requires reasoning and problem solving. Stress is increased by unreasonable demands, uncontrollable problems, difficult interpersonal relations (e.g., critical, abusive customers), dangerous conditions (e.g., firefighting, combat, police work), and the risk of costly errors (surgery, financial advisor, aircraft maintenance). People in such situations have more need for emotional support, which may be provided by a leader, coworkers, and other people outside the organization. It is especially important for the leader to reduce rather than increase stress on a subordinate. Stress is reduced by showing appreciation, listening to problems and complaints, providing assistance when necessary, doing things to make the work environment more enjoyable, and buffering the person from unnecessary demands by outsiders. Stress is increased by being critical, making unreasonable demands, pressuring the person to work faster, and insisting on compliance with unnecessary bureaucratic requirements.

Summary

The managerial job is too complex and unpredictable to rely on a set of standardized responses to events. Effective leaders are continuously reading the situation and determining how to adapt their behavior to it. They seek to understand the task requirements, situational constraints, and interpersonal processes that determine which course of action is most likely to be successful. This chapter examined six early contingency theories that prescribe different patterns of leader behavior (or traits) for different situations.

The LPC contingency model deals with the moderating influence of three situational variables on the relationship between a leader trait (LPC) and subordinate performance. According to the model, leaders with high LPC scores are more effective in moderately favorable situations, whereas leaders with low LPC scores are more favorable in situations that are either very favorable or very unfavorable.

The path-goal theory of leadership examines how aspects of leader behavior influence subordinate satisfaction and motivation. In general, leaders motivate subordinates by influencing their perceptions of the likely consequences of different levels of effort. If subordinates believe that valued outcomes can be attained only by making a serious effort and that such an effort will be successful, then they are likely to make the effort. Aspects of the situation such as the nature of the task, the work environment, and subordinate characteristics determine the optimal level of each type of leadership behavior for improving subordinate satisfaction and effort.

In the situational leadership theory, the appropriate mix of task and relations behavior for the leader depends on the confidence and skill of a subordinate in relation to the task. Over time the leader may be able to increase subordinate maturity with a developmental intervention.

Leadership substitutes theory identifies aspects of the situation that make leadership behavior redundant or irrelevant. Various characteristics of the subordinates, task,

and organization serve as substitutes for leadership and/or neutralizers of its effects. Substitutes make some types of behavior by the leader unnecessary and redundant, whereas neutralizers are constraints that prevent the leader from doing anything to improve conditions.

The multiple-linkage model describes how a leader can influence intervening variables to improve group effectiveness. The performance of a group or organizational subunit is highest when members have high task skill and motivation, they are efficiently organized, the level of member cooperation is high, adequate resources are available, and unit activities are coordinated with those of interdependent units. These intervening variables are affected by a variety of situational variables in addition to the actions of the leader. In the short run, a leader can improve group performance by taking direct action to correct any deficiencies in the intervening variables. In the longer run, the leader can improve group performance by taking action to make the situation more favorable. These actions may involve reducing constraints, enhancing substitutes, altering the relative importance of the intervening variables, or making changes to indirectly improve intervening variables.

Cognitive resources theory examines the conditions under which cognitive resources such as intelligence and experience are related to group performance. Situational variables, such as interpersonal stress, group support, and task complexity, determine whether a leader's intelligence and experience enhance group performance. Directive leader behavior is an intervening variable used to explain how a leader's cognitive resources affect group performance.

The early contingency theories reviewed in this chapter are complex and difficult to test. Although they provide insights about reasons for leadership effectiveness, a major limitation is the lack of sufficient attention to leadership processes that transform the way followers view themselves and their work. A better description of these processes is provided by some of the theories described later in this book. Finally, situational moderator variables will be discussed again in connection with most of the leadership theories described in successive chapters.

Review and Discussion Questions

1. What is a situational moderator variable?
2. Briefly explain the path-goal theory.
3. Briefly explain the leadership substitutes theory.
4. Briefly explain the multiple-linkage model.
5. Briefly explain Fiedler's LPC contingency model.
6. Briefly explain Fiedler's cognitive resource theory.
7. Briefly explain Hersey and Blanchard's situational leadership theory.
8. Compare and contrast the contingency theories in this chapter with regard to level of analysis, leader characteristics, explanatory processes, and the number and type of situational variables.
9. Which theory do you think would be most useful for helping managers become more effective? Explain the reason for your choice.
10. How well is each theory supported by the empirical research?

11. In what situations are planning, clarifying, and monitoring most likely to be effective?
12. In what situations are supporting, coaching, and consulting most likely to be effective?
13. Can you think of a situation where a group could perform effectively without any leadership (either by a designated leader or by the various group members)?

Key Terms

cognitive resources model	least preferred coworker (LPC)	multiple-linkage model
contingency theories	LPC contingency model	neutralizer
directive leadership	moderator variable	path-goal theory
intervening variable		substitute for leadership

CASE

Foreign Auto Shop

Part 1

Alan has been the owner and manager of a small auto repair shop for 7 years. The auto shop has a steady and loyal clientele who appreciate the fact that they receive quick, reliable service at a fair price. Alan employs seven mechanics and two office workers.

Gil and Hans are the two oldest mechanics, and they are the easiest to supervise. When Alan assigns work to them (mostly high-precision, specialist jobs), they do it quickly and hardly ever make a mistake. Bart and Herbie are also skilled mechanics. Bart specializes in repairing motorcycles, and Herbie is a whiz at troubleshooting engine problems. Three younger workers do the jobs that call for lower-level skills, under Alan's more careful guidance. Kirk has a degree in Industrial Arts, but he couldn't get a job in his specialty without moving to another city, and he seems to have resigned himself to auto repair work. LaMont enjoys working on sports cars and is getting to be quite expert at operating the electronic diagnostic machines. Joanie does general mechanical work and does it well.

Alan takes care of customers when they drop off their cars in the morning, then he plans the work schedule and assigns the mechanics to work on particular cars. Most of the work is done by individual mechanics, but occasionally a job requires two mechanics to work together. The work of repairing cars and conducting routine maintenance on them is well-defined; there are standard procedures and standard times to perform each type of repair task. Mechanics receive feedback about the quality of their work from testing the car and from customers (who will complain if something is not fixed properly). Alan does not spend much time actually directing or supervising the repair work. He leaves the mechanics alone unless they are having a problem and need technical advice. He almost never tells someone to do something in a directive way. Instead, he suggests various ways to deal with a problem, or he shows them how he would have

handled it. When not busy with administrative responsibilities, Alan enjoys working alongside his mechanics, where he is available to answer any questions about the work. Alan's style of leadership suits his easygoing personality.

Alan also encourages his employees to participate in making decisions such as what new equipment to purchase or how to improve quality. They know that Alan is sincere in asking for their opinions and is not just doing it as a manipulative strategy to minimize their opposition to decisions that have already been made. Alan's fairness and openness have earned him the continuing respect and trust of his employees.

SOURCE: Adapted from William J. Wasmuth and Leonard Greenhalgh, *Effective Supervision: Developing Your Skills Through Critical Incidents*. Prentice Hall, Copyright © 1979

QUESTIONS

1. What is the usual leadership situation in the auto repair shop (consider the nature of the task, subordinates, and environment)?
2. Describe Alan's typical leadership style and evaluate whether it is appropriate for the leadership situation.

Part 2

Alan looked anxiously out of his office window. The sky was very dark over the nearby hills, and the storm seemed to be advancing rapidly toward the valley where his auto repair shop was located. Just to be on the safe side, Alan went out and rolled up the windows of the customers' cars in the parking lot. He noticed the creek was already running high, the result of melting snow during the warm spring days. Before he could get back into the shop, a sudden downpour of huge drops of rain soaked his clothing. Some of the mechanics laughingly teased him for "not having enough sense to come in out of the rain."

After 15 minutes of the pelting rain, Alan realized that this was no ordinary rainstorm. He went out to look at the creek again and found that it had already risen to almost the height of its banks. Alan figured it wouldn't be long before the muddy water would flood the parking lot and come swirling around the shop doors. He ran back into the shop and announced in a loud voice that the creek was going to flood. He told three of his mechanics to drop everything and start moving cars. The cars that were parked next to the creek needed to be driven, pushed, or towed up to the high ground across the road. Alan told the other mechanics to put the tools away and help move all the boxes of parts and supplies off the floor and into the storage racks in the storeroom and the office. Alan had everybody's attention, but nobody seemed to be moving. If anything the mechanics seemed to be amused.

Kirk strolled over to Alan with a tolerant smile on his face. "Come on, Alan," he said. "There's no sweat. The water's never been more than an inch deep in the parking lot. We've never had any inside . . ." Alan interrupted him, looking him right in the eye, and said in an assertive way, "Listen Kirk, and listen good! You and the rest of the crew are going to do what I say, and you're going to do it now! We can talk later about whether it was a good idea."

This time, the mechanics dropped everything and began preparing for a flash flood. Alan barked instructions as he helped them move everything that could be damaged by water. All of the boxes were off the floor before the first trickle of water came under the door. By the time the water was ankle-deep, all the cars inside the shop had been jacked up and were sitting on cement blocks.

At its peak, the water was 10 inches deep in the shop, but by then the rain had stopped and the sun was already shining. The water level began to recede slowly, but it didn't drop below shop-floor level until after 9 p.m. At 10 p.m. the mechanics voluntarily returned to the shop to help with the cleanup, which was not completed until 3 a.m. Alan personally thanked each one and gave them all the next morning off.

The next afternoon, Alan gave an informal "speech" during the coffee break. He gave the mechanics all the credit for avoiding thousands of dollars of property damage. He even went to the trouble of pointing out particular contributions each of them had made. For instance, he thanked LaMont for his quick thinking in throwing the master switch before the water reached the electric outlets. He thanked Kirk for the idea of jacking up all the disabled cars inside the shop. And so on until everyone's contribution, no matter how minor, had been recognized.

At 5 o'clock, everyone left but Gil, the oldest mechanic. He decided to stay and chat with Alan. "You really surprised us yesterday!" Gil told Alan. "We could hardly believe it was you."

"Whaddaya mean?" Alan asked, pretending to be offended. "You sounded like my old drill sergeant!" Gil chuckled. "Usually, you're so mild mannered we forget you're the boss!" "Maybe I'm a little too mild mannered," Alan replied. "When I told you guys to prepare for the flood you all laughed at me."

QUESTIONS

1. Describe Alan's leadership style during the flood, and evaluate how appropriate it was for the leadership situation.
 2. Identify effective behaviors by Alan after the flood subsided.
 3. How should Alan behave toward his employees in the future?
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