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The Contingency Theory of Organizations

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Core Paradigm and Theoretical Integration

The contingency theory of organizations is a major theoretical lens used to view organizations. It yields many insights and has substantial empirical support. Contingency theory contains much of importance in the history of organizational science. Its research forms the basis of much that is taught today. Moreover, contingency research is actively pursued by scholars in the contemporary era and it is being projected into the future in a series of exciting theoretical and empirical developments. The aim of this book is to introduce the reader to the rich tradition of contingency theory research, indicate the potential for future developments, and offer guidance on how to proceed in research both in theory and empirical practice.

The essence of the contingency theory paradigm is that organizational effectiveness results from fitting characteristics of the organization, such as its structure, to contingencies that reflect the situation of the organization (Burns and Stalker 1961; Lawrence and Lorsch 1967; Pennings 1992; Woodward 1965). Contingencies include the environment (Burns and Stalker 1961), organizational size (Child 1975), and organizational strategy (Chandler 1962). Because the fit of organizational characteristics to contingencies leads to high performance, organizations seek to attain fit. For this reason, organizations are motivated to avoid the misfit that results after contingencies change, and do so by adopting new organizational characteristics that fit the new levels of the contingencies. Therefore the organization becomes shaped by the contingencies, because it needs to fit them to avoid loss of performance. Organizations are seen as adapting over time to fit their changing contingencies so that effectiveness is maintained. Thus contingency theory contains the concept of a fit that affects performance, which, in turn, impels adaptive organizational change. This results in organizations moving into fit with their contingencies, so that there is an alignment between the organization and its contingencies, creating an association between contingencies and organizational characteristics (Burns and Stalker 1961; Woodward 1965; Van de Ven and Drazin 1985).

Some of the more important contingency theories of organizational structure involve the three contingencies of the environment, organizational size, and strategy. The environmental stability contingency affects mechanistic structure (Pennings 1992). The rate of technological and market change in the environment of an organization affects whether its structure is mechanistic (i.e., hierarchical) or organic (i.e., participatory; Burns and Stalker 1961). The mechanistic structure fits a stable environment, because a hierarchical approach is efficient for routine operations. Given the routine nature of operations, the managers at upper levels of the hierarchy possess sufficient knowledge and information to make decisions, and this centralized control fosters efficiency. In contrast, the organic structure fits an unstable environment, because a participatory approach

is required for innovation. Knowledge and information required for innovation are distributed among lower hierarchical levels and so decentralized decision making fosters innovation. An organization that has the misfitting, mechanistic structure in an unstable environment is unable to innovate and so becomes ineffective (Burns and Stalker 1961).

The size contingency affects bureaucratic structure. The size of an organization, that is, the number of its employees, affects the degree to which its structure is bureaucratic, for example, rule-governed, and is decentralized (Pugh and Hickson 1976; Pugh and Hinings 1976). The bureaucratic structure fits a large organization, because large size leads to repetitive operations and administration so that much decision making can be by rules, rendering decision making inexpensive and efficient (Child 1975; Weber 1968). In contrast, an unbureaucratic, or simple, structure, which is not rule-governed and is centralized, fits a small organization, because top management can make almost all the decisions personally and effectively (Child 1972a). A large organization that seeks to use the misfitting, simple structure will find top management overwhelmed by the number of decisions it needs to make, so that the organization becomes ineffective.

The strategy contingency affects divisional structure. The functional structure fits an undiversified strategy, because all its activities are focused on a single product or service so that efficiency is enhanced by specialization by function (e.g., departments of production, marketing, etc). In contrast, the divisional structure fits a diversified strategy, because it has diverse activities serving various product-markets, so effectiveness is enhanced by coordinating each product or service in its own division (Chandler 1962; Galbraith 1973). An organization with a diversified strategy that seeks to use the misfitting, functional structure will find top management overwhelmed by the number of decisions and also suffer lack of responsiveness to markets, so that the organization becomes ineffective.

Thus structural contingency theory argues that organizational structure needs to fit the three contingencies of the environment, size, and strategy. As seen, each of these contingencies affects a particular aspect of structure: organic, bureaucratic, and divisional, respectively. Change in any of these contingencies tends to produce change in the corresponding structural aspect (Burns and Stalker 1961; Chandler 1962; Child 1973a). In this way the organization moves its structure into alignment with each of these contingencies, so that structure and contingency tend to be associated (Child 1973a; Hage and Aiken 1969; Rumelt 1974). There are other contingencies of organizational structure, as we shall see, but these preliminary remarks serve to exemplify contingency theory.

Contingency theory is to be distinguished from universalistic theories of organization, which assert that there is “one best way” to organize, meaning that maximum organizational performance comes from the maximum

level of a structural variable, for example, specialization (Taylor 1947). Classical management is an earlier organizational theory that argues that maximum organizational performance results from maximum formalization and specialization (Brech 1957), and it is therefore a universalistic type of theory. Similarly, neo-human relations is also an earlier universalistic type of organizational theory, which argues that organizational performance is maximized by maximizing participation (Likert 1961). Contingency theory differs from all such universalistic theories in that it sees maximum performance as resulting from adopting, not the maximum, but rather the appropriate level of the structural variable that fits the contingency. Therefore, the optimal structural level is seldom the maximum, and which level is optimal is dependent upon the level of the contingency variable.

Much of contingency theory research has studied organizational structure (Donaldson 1995a, 1996a; Lawrence 1993), and this tradition is referred to as structural contingency theory (Pfeffer 1982). In this book we will focus on structural contingency theory research because it is a large and complex body of work. There are, however, contingency theories of many different organizational characteristics, such as leadership (Fiedler 1967), human resource management (Delery and Doty 1996), and strategic decision-making processes (Frederickson 1984). There are many common issues that run across the various contingency theories of the different organizational characteristics. Hence by providing a discussion that focuses on structural contingency theory we may also illuminate contingency theories of other organizational characteristics.

Contemporary organizational researchers are seeking to build upon the structural contingency tradition and make new contributions to it. For example, some contemporary contingency researchers are concerned to show the effect of fit on performance that contingency theory postulates (Gresov 1990; Hamilton and Shergill 1992, 1993; Hill, Hitt, and Hoskisson 1992; Jennings and Seaman 1994; Keller 1994; Kraft, Puia, and Hage 1995; Mahoney 1992; Marsden, Cook, and Kalleberg 1994; Palmer, Jennings, and Zhou 1993; Powell 1992; Schlevogt and Donaldson 1999). Other researchers are investigating the contingency factors and identifying which aspects of organization they effect (e.g., Anderson 1996; Birkinshaw 1999; Jarley, Fiorito, and Delaney 1997). Others again are studying the contingency adaptation processes (e.g., Priem 1992, 1994). Still other researchers, whose primary allegiance is to a theory other than contingency theory, nevertheless find in contingency work elements that may helpfully be incorporated into their own projects (e.g., Fligstein 1985).

The foregoing, brief definition of structural contingency theory raises several questions. Is there a unifying structural contingency theory paradigm, or just a loose agglomeration of vaguely related theories? Is it correct to say that contingencies cause organizational structure or are there other causal patterns, such as the structure causing the contingency? Do contingency factors determine organizational structure or is there choice? Is there really an underlying fit of organizational characteristic to contingency that drives causality, as contin-

gency theory argues, or is the whole idea of fit just an exercise in tautology? These are some of the questions we must consider in discussing the contingency theory of organizations.

In order to begin our discussion, let us first clarify exactly what we mean by contingency theory by offering a definition in formal terms. The next step will be to consider whether there is a contingency theory paradigm that unites the disparate contingency theories. We will seek to show that there is for structural contingency theory. We will then move to consider the more specific contingencies and structural variables in structural contingency theory. It will be shown that many of them fall into two groups: organic theory and bureaucracy theory. These are seen as being theories that are to some degree in conflict, but that may be brought together, rendering structural contingency theory coherent—and not overly complex. The remainder of this chapter provides a conceptual and theoretical integration, and an introduction to the issues and material in the body of this book. In this way it puts in place some major building blocks and provides an overview for what is to come. The process therefore is to move from contingency logic, to the most general contingency theory, to contingency theories, and then in the ensuing chapters to concrete findings and methods.

A Formal Definition of Contingency Theory

The contingency theory of organizations is a subset of the contingency approach in science, so let us first define the contingency approach and then the contingency theory of organizations within it.

At the most abstract level, the contingency approach says that the effect of one variable on another depends upon some third variable, W. Thus the effect of X on Y when W is low differs from the effect of X on Y when W is high. For example, it might be that when W is low, X has a positive effect on Y, whereas when W is high, X has a negative effect on Y. Thus we cannot state what the effect of X on Y is, without knowing whether W is low or high, that is, the value of the variable W. There is no valid bivariate relationship between X and Y that can be stated. The relationship between X and Y is part of a larger causal system involving the third variable, W, so that the valid generalization takes the form of a trivariate relationship. A bivariate relationship is too simple to capture the lawlike regularity connecting X and Y. Therefore a more complex causal statement is required. However, the contingency statement is just one step more complex in that it consists of only one more variable, going from two to three variables.

The third variable, W, moderates the relationship between X and Y and can therefore be called a moderator of the relationship or a conditioning variable of the relationship (Galtung 1967). However, while a contingency factor is a moderator or conditioning variable, it plays a more specific role, so that not all moderators are con-

tingencies. In the contingency theory of organizations, the relationship is between some characteristic of the organization and effectiveness. Thus the contingency factor determines which characteristic produces high levels of effectiveness of the organization (or some part of it, such as a department or individual member). For example, a mechanistic structure produces high effectiveness when the task uncertainty contingency is low, and an organic structure produces high effectiveness when the task uncertainty contingency is high.

The reason for the focus on effectiveness in contingency theory is that organizational theory has been concerned to explain the success or failure of organizations. However, organizational effectiveness can have a broad meaning that includes efficiency, profitability (Child 1975), employee satisfaction (Dewar and Werbel 1979), innovation rate (Hage and Dewar 1973), or patient well-being (Alexander and Randolph 1985; see also Pennings 1992). Organizational effectiveness can be defined as the ability of the organization to attain the goals set by itself (Parsons 1961), or by its ability to function well as a system (Yuchtman and Seashore 1967), or by its ability to satisfy its stakeholders (Pfeffer and Salancik 1978; Pickle and Friedlander 1967). *Organizational effectiveness* and *performance* are similar concepts and will be used interchangeably in this book.

The Core Contingency Theory Paradigm

As just seen, a *contingency* is any variable that moderates the effect of an organizational characteristic on organizational performance. Given this definition of a contingency, it is clearly quite encompassing, so the open-ended nature of such a definition can prompt unease that there is no singular, contingency theory of organizations, only a multiplicity of contingency theories and hence no unifying paradigm. Therefore the criticism is sometimes made that there is no structural contingency theory of organizations, only a loose grouping of disparate theories, each of which makes a connection between its contingency and some aspect of organizational structure, for example, task uncertainty and the organic structure, or size and bureaucracy. The question, therefore, is whether there exists some more overarching framework within which the various structural contingency theories come together. Thus, at a more abstract level, are there commonalties between the structural contingency theories? We believe that there are. It is possible to create a theoretical framework that connects contingencies in the abstract with organizational structure in the abstract. The argument is highly general so that it applies to all the contingencies and their corresponding structural aspects. In this sense, there is a unifying contingency paradigm.

Structural contingency theory contains three core elements that together form its core paradigm. First, there is an association between contingency and the organizational structure. Second, contingency determines the organizational structure, because an organization that changes its contingency then, in consequence, changes its structure. Third, there is a fit of some level of the organizational structural variable to each level of the contingency, which leads to higher performance, whereas misfit leads to lower performance. This fit-performance relationship is the heart of the contingency theory paradigm. It provides the theoretical explanation of the first two points: the association between contingency and structure, and contingency change causing structural change. An organization that changes the level of its contingency tends to have been in fit when it made the change, and thence to move into misfit so that its performance decreases. The organization then changes its organizational structure to fit the new level of the contingency variable, in order to avoid further performance loss. Therefore, because of the performance lost by being in misfit, organizations tend over time to move toward fit. Thus any organization tends to adopt the structure that fits its level of the contingency. This means that a change in contingency leads to a change in structure, so that contingency determines structure. In this way the contingency and the organizational structure move into alignment and so arises the association between the contingency and the organizational structure.

Let us now examine structural contingency theory research to see that these three elements are commonalities that exist across the different contingencies and theories. We will consider each of three core commonalties in turn: (1) the association between contingency and organizational structural variable or attribute; (2) the change process that contingency change causes organizational structural change; and (3) the fit of structure to contingency that affects performance.

1. Association Between Contingency and Organizational Structure

Contingency theory research into organizational structure frequently shows an association between contingency and structure. Sometimes these associations are presented as cross-tabulations (e.g., Woodward 1965) and at other times as correlations (e.g., Holdaway, Newberry, Hickson, and Heron 1975, p. 48). Such correlations are seen for the size contingency and various aspects of bureaucratic structure (e.g., Child 1973a, p. 170, Table 2). They are seen for the strategy contingency and divisional structure (Grinyer, Yasai-Ardekani, and Al-Bazzaz 1980, p. 198). They are seen also for technology and structure (Child and Mansfield 1972, pp. 378–379). Thus there is a clear commonality across the diverse contingencies of organizational structure in that, despite differences in contingencies and their corresponding structural aspects, the contin-

gency theories postulate theoretically an association between contingency and structure, and demonstrate this as a central part of their empirical research.

Thus a bivariate association is expected between any contingency factor and its structural variable. Often these bivariate relationships are linear, that is, as the contingency factor increases in value, so does the structural variable. However, associations do not have to be linear and may be curvilinear, as, for example, are several of the contingency-structure associations in Woodward's analysis of technology and structure. For example, as the technology contingency increases, the span of control of the first-line supervisor first increases and then decreases (Woodward 1965). Whether linear or curvilinear, there is an association between the contingency and the structure as a core component of the structural contingency research paradigm that provides a commonality across the diverse structural contingency theories.

2. Contingency Change Causes Organizational Structural Change

The use of cross-sectional methods in empirical studies that show correlations between contingency and structure is taken in some commentaries to imply that structural contingency theory is static (Galunic and Eisenhardt 1994). However, structural contingency theory deals with organizational change. It contains a theory that is dynamic, which is supported by studies of organizations changing over time. While there are differences in the contingency and structural factors, there is a similar view of organizational change. Contingency causes structure in that change in contingency leads to change in structure (e.g., Burns and Stalker 1961; Chandler 1962). The changes in contingency lead the organization out of fit with the old structure, which lowers performance. Eventually the organization resolves this by adopting a new and better structure that fits the new level of the contingency, thereby restoring performance. This model of organizational change is seen in Burns and Stalker (1961), where increasing technological and market change eventually cause the organization to change from a mechanistic to an organic structure in their empirical case studies of changes over time. Using Thompson's concepts of contingency and structure, Van de Ven, Delbecq, and Koenig (1976) show that change in the task contingency leads to change in coordination modes, so that the task contingency causes structure. Again it is seen in the way that strategy leads to structure, that is, diversifying causes the organization to adopt a divisional structure (Chandler 1962; Channon 1973, 1978; Dyas and Thanheiser 1976; Rumelt 1974).

Thus a model of organizational change exists in structural contingency theory, in which contingency changes cause change in organizational structure. This unified theory of organizational change that goes across the contingencies (e.g., environment and strategy) is one more sense in which there is *the* contingency theory of organizations. Therefore the dynamics that contingency changes cause structural changes is a second core component of the contingency paradigm.

Contingency theory depicts organizational change as an organizationally rational process of restoring effectiveness, so that is a functionalist type of sociological theory (Burrell and Morgan 1979). Several other organizational theories challenge this rationalist, functionalist account and they will be discussed further (see Chapter 6). Much of the argument that change is functional for the organization hangs on the idea that organizations changing their structures are doing so to move from misfit into fit and thereby restoring their performance, which takes us to our next point.

3. Fit Affects Performance

Contingency theories hold that there is a fit between the organizational structure and contingency that has a positive effect on performance. In formal terms, there is a trivariate relationship between structure, contingency, and performance. Where the structural variable is at the level that fits the level of the contingency, high performance results. Where the structure is at a level that does not fit the level of the contingency, low performance results. This contingency-structure-fit explains the association between contingency and structure. Thus the decisive proof of a contingency theory involves empirically demonstrating that there is a fit of structure to contingency that positively affects performance. This requires showing that the combination of contingency and structure that is held to be a fit causes high performance and that the combination held to be a misfit causes low performance. Each contingency theory specifies the structures that fit its contingency, so that the fits and misfits are unique to that theory (e.g., divisional structure fits diversification, bureaucratic structure fits large size). Despite such diversity about the exact definition of fit, these different views all contain the concept of fit. Thus, at the more abstract level, the concept of *fit* provides a theoretical commonality across different contingency theories.

Contingency theory research looks for a relationship between fit and performance, that is, searches for a trivariate relationship among contingency, structure, and performance. For example, Woodward (1965)

demonstrates that fit of span of control of the first-line supervisor to the technology contingency is associated positively with organizational performance. Other examples are Child (1975) and Khandwalla (1973), who show that fit of bureaucratic structure to the size contingency is associated positively with organizational performance. In Chapter 8 we will review studies that empirically support fits that positively affect organizational performance for a range of different contingencies. Hence the fit-performance relationship is a common element found among the diverse contingency theories and so constitutes a third core component of the contingency theory paradigm.

Structural Adaptation to Regain Fit

The core contingency theory paradigm is illustrated by research on the strategy contingency and its relationship with divisional structure. The research supports each of the three elements of the paradigm. Moreover, it supports a more particular theoretical model of how contingency change leads to structural change, namely, structural adaptation to regain fit (SARFIT).

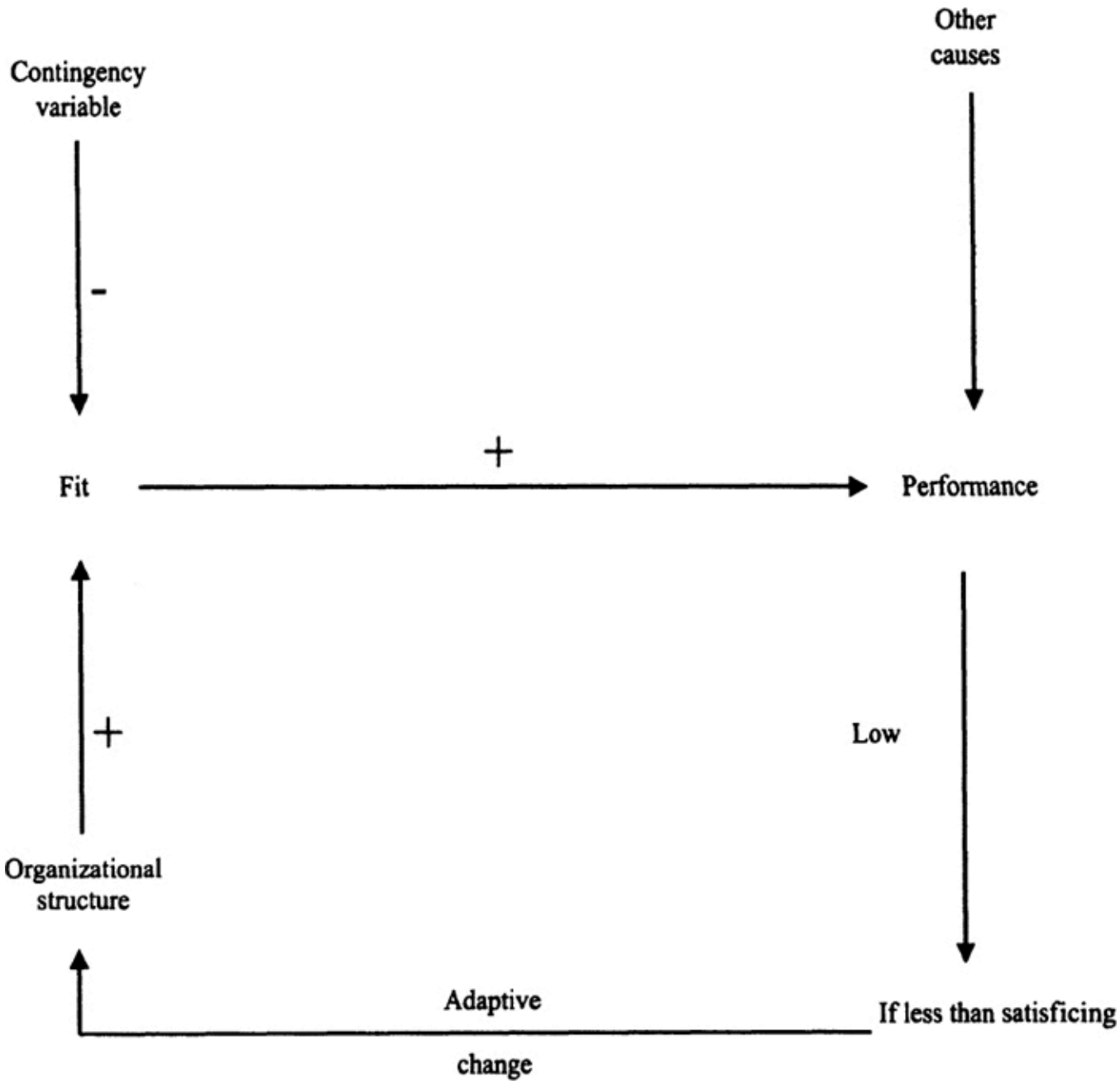
There is an association between the contingency variable of strategic diversification and divisionalization (i.e., the distinction between the functional and the divisional structures; e.g., Grinyer and Yasai-Ardekani 1981).

Strategy contingency change causes divisional structural change. This is shown by studies across time. In the case histories of Chandler (1962), strategy leads to structure, that is, diversifying causes the organization to adopt a divisional structure. Quantitative studies of large corporations also show that diversification precedes and causes divisionalization (Channon 1973, 1978; Dyas and Thanheiser 1976; Fligstein 1985; Rumelt 1974; Suzuki 1980).

The processes involved in changing the organizational structure in response to changes in the level of the contingency variable can be specified in the theoretical model of structural adaptation to regain fit (SARFIT; Donaldson 1987). This is shown in Figure 1.1. The SARFIT model states that an organization is initially in fit, having a structure that fits its existing level of the contingency variable. Fit positively affects performance. However, the organization then changes its level of the contingency variable while retaining its existing structure, which thereby becomes a misfit with its new contingency level (thus the effect of the contingency variable on fit is shown as negative in Figure 1.1). In turn, the misfit leads to lower performance (reversing the positive effect of fit on performance shown in Figure 1.1). When performance becomes so low (because of the effects

of the misfit and other causes) that it becomes less than the satisficing (i.e., satisfactory) level, the organization then makes an adaptive change. The adaptive change is to adopt a new organizational structure that fits its new contingency level (shown as a positive effect of organizational structure on fit in Figure 1.1). The new fit restores performance. Thus structural change occurs in response to contingency change and is triggered by the feedback effect from the low performance caused by misfit. The organization adapts its structure to changes in the contingency in order to maintain effective functioning.

Figure 1.1. The Contingency Theory of Structural Adaptation to Regain Fit (SARFIT)

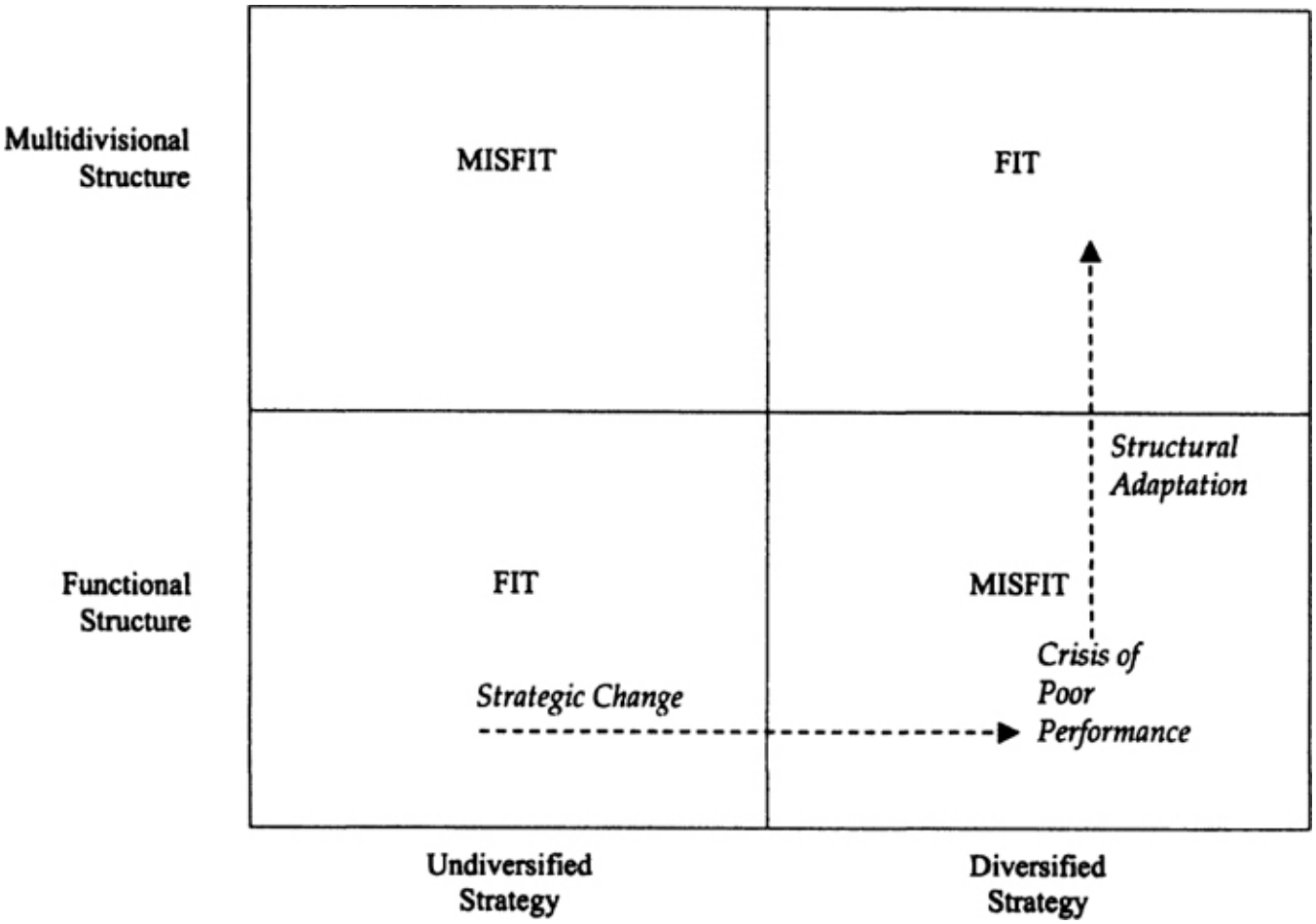


To investigate whether the SARFIT theoretical model holds for the phenomena of strategy and structure, we must first operationalize fit. From Chandler (1962) it can be seen that functional structures fit undiversified firms and misfit diversified firms, while divisional structures fit diversified firms and misfit undiversified firms (Donaldson 1987, pp. 8–9). This operationalization was empirically validated by showing that firms in fit had

significantly higher subsequent financial performance (growth in profit on sales and on capital), so that fit was a cause of performance (Donaldson 1987, pp. 16–17). This operational definition has been independently replicated on other firms (Hamilton and Shergill 1992, 1993).

Initially, firms are undiversified and tended to have a functional structure, so that empirically most of them were in fit (Donaldson 1987; see also Figure 1.2). Movement away from this initial position was overwhelmingly through strategic change, by diversification, while retaining their functional structure, so entering misfit. Of firms that moved from fit to misfit, 83 percent did so by increasing their strategy contingency (Donaldson 1987, p. 14). Once in misfit of structure to strategy, the firms would consequently experience reduced performance. Then, when financial performance became low, so that a crisis of poor performance occurred, firms moved from misfit into fit by adopting a new, divisional structure that fitted their diversified strategy, so making a structural adaptation. Firms in misfit were more than four times more likely to change only their structure (Donaldson 1987, p. 14), showing that misfit led to structural change. Of firms that changed only their structure, 72 percent moved from misfit to fit and only 5 percent moved from fit to misfit (Donaldson 1987, p. 14), showing that when firms made structural change it was overwhelmingly a move from misfit into fit, that is, structural adaptation. Of the firms that moved from misfit to fit by changing only their structure, 90 percent did so by adopting the divisional structure (Donaldson 1987, p. 15). Thus firms moved from misfit to fit by divisionalizing. The fit would be beneficial for their performance. Hence, overall, the firms moved from misfit into fit by adapting their structure to their strategy contingency.

Figure 1.2. Change in Strategy Causes Change in Structure: Dynamics of Structural Adaptation



The adaptation of structure to strategy is subject to time lags, however. There was no pattern of firms that diversified in one decade being more likely to change their structures in the subsequent decade, so that, on average, structural change did not follow strategic change within ten years (Donaldson 1987, p. 13). Indeed, 77 percent of the firms in misfit had been so for ten years or more (Donaldson 1987, pp. 15–16), pointing to the lengthiness of lags of structural change to strategic change. Strategy slowly leads to structure. The reason is that performance mediates structural change, so that it occurs only when performance becomes low. For diversified firms in misfit, we can compare those that moved into fit, by structurally changing from functional to divisional, with those retaining the misfitting functional structure. The divisionalizing firms had significantly lower sales and profits, and especially earnings per share, at the start of the period than those firms that retained the functional structure (Donaldson 1987, pp. 17–18). These results show that poor performance and

failure to satisfy powerful stakeholders (i.e., owners) trigger structural adaptation.

Overall, contingency change (diversification) caused structural change (divisionalization). The initial contingency change creates dysfunctions that are corrected by structural change, so that the organization starts out in fit and ends in fit. The firms went from an old fit to a new fit through the intervening stage of misfit. The effect of misfit on structural change is, however, indirect, running through performance. It is the feedback effect of low performance that is the more immediate cause of structural change. Change in the strategy contingency leads eventually to structural change, because of the need to restore performance, as the pioneers of structural contingency theory stated (e.g., Chandler 1962). While the idea that divisionalization leads to diversification is familiar, the important point is that it is through the process of misfit and low performance. This confirms the functionalist contingency theory of organizational change and, more specifically, the model of structural adaptation to regain fit (SARFIT).

Further support for the SARFIT model comes from empirical studies by Ezzamel and Hilton (1980) and Hill and Pickering (1986). Ezzamel and Hilton (1980) found that before divisionalization, firms tended to have deteriorating performance (as measured by share price), and that after divisionalization, performance tended to rise. Similarly, Hill and Pickering (1986, pp. 34–35) found that structural changes (predominantly divisionalization) of firms were seen by their top management as about equally attributable to strategic change and responding to problems. The strategic change referred to major new acquisitions and diversification (Hill and Pickering 1986, p. 35) and so is consistent with the theory that diversification leads to divisionalization. Decline in company performance was the most frequent type of problem (Hill and Pickering 1986, p. 35). Another problem was the “need to increase accountability,” which probably also reflects concerns about unsatisfactory performance (Hill and Pickering 1986, p. 35). These two problems are consistent with the theory that low performance triggers structural change. Yet another problem was “intra-organizational communications,” which is consistent with internal disorganization from misfit. Thus the results corroborate the theory that diversification leads to misfit that leads to low performance and divisionalization.

As we have just seen, while misfit produces a negative effect on organizational performance, structural change to a fitting structure is not usually immediate. The pioneering empirical study shows that firms often remain in misfit for some time, consequently incurring performance loss (Chandler 1962). Structural change into fit is caused by a crisis of poor performance. Chandler (1962) documents how performance crises precipitated by events such as economic recessions were required to trigger corporations to adopt the divisional

structures they needed in order to fit their diversification. This low level of performance results in part from the effect of the misfit, but in part also from other causes that depress organizational performance (as will be discussed further in Chapter 9). Thus performance has to drop to a low level before the organization's management takes the corrective action needed. Organizations fail to make needed adaptive change until their performance has deteriorated substantially, so that there is a clear problem to be solved. This is consistent with the theory of Simon (1976) that managers are boundedly rational (through incomplete knowledge, etc.) so that, rather than maximize, they satisfice. As long as the organization maintains a level of performance that is at or above the satisficing level (i.e., the level judged to be satisfactory), managerial decision making is not engaged. Managerial decision making consists of problem solving, which is initiated when a problem occurs, as manifest in subsatisficing performance. It takes the form of looking for a solution good enough to return performance to the satisficing level. Therefore an organization in misfit adopts a new organizational structure and moves into fit only when performance becomes low. In these ways the SARFIT model specifies the processes whereby contingency change causes structural change, adding to the core paradigm.

In summary, structural contingency theory contains a core paradigm that generalizes across any contingency. There is an association between contingency and organizational structure. There is organizational change, that is, contingency change causing change in the structure. And there is a fit of the structure to the contingency that positively affects performance. The fit of structure to contingency explains why organizations change their structure in response to changing their contingency and thus why contingency and structure are associated.

Conceptual and Theoretical Integration of Structural Contingency Theory

The contingency theory of organizational structure may be integrated by stating that there are two main contingencies, task and size, with the task contingency being composed of task uncertainty and task interdependence. There are two main contingency theories of organizational structure: organic theory and bureaucracy theory. Task uncertainty is the main contingency of the organic theory, with task interdependence playing the role of a minor contingency. Size is the main contingency of bureaucracy theory with task interdependence,

once again, playing the minor role.

There are a number of different structural contingency theories, each connecting a particular contingency to some specific aspects of organizational structure (e.g., Blau 1970; Burns and Stalker 1961; Chandler 1962; Child 1973a; Thompson 1967; Woodward 1965). However, many of the contingency and structural variables can be reduced to a few underlying constructs that compose those underlying theories. Similarly, there is considerable similarity among many of the theories so that theoretical integration is possible. We will offer a conceptual and theoretical integration of structural contingency theory. This provides an overview of many of the issues that will be discussed in detail later, in order to give the reader a map of the intellectual terrain to be navigated in the ensuing chapters. We will begin by showing how many different contingency variables can be reduced to a few underlying constructs. In the subsequent section we shall present two theories, the organic and the bureaucracy theories, that, between them, capture much of the contingency theory of organizational structure.

Contingencies

Contingencies of organizational structure include some that are within the organization and some that are outside it. Contingency factors such as task uncertainty and task interdependence are aspects of the work being performed and so lie inside the organization. Organizational size is how many people are in the organization and so is also an internal organizational characteristic. Other contingency factors are characteristics of the environment, such as environmental uncertainty. However, they affect the internal contingencies, which in turn shape other internal organizational characteristics, for example, organizational structure. For instance, environmental uncertainty affects task uncertainty, which causes the adoption of an organic structure. Thus, structure is caused by needing to fit the intraorganizational contingencies, some of which are, in turn, caused by the environmental contingencies. In this way, the organization is shaped by the need to fit its environment. Environmental contingencies indirectly shape the organization through the intervening variables of the intraorganizational contingencies. Thus, while environmental contingencies may be more ultimate causes of organizational structure, the intraorganizational contingencies through which they work are the more immediate and direct causes of structure, so they are emphasized in this book.

Research into organizational structure has identified a number of contingencies. Task uncertainty (Gresov 1990), technology (Woodward 1965), innovation (Hage and Aiken 1967a), environmental change (Child 1975), technological change (Burns and Stalker 1961), size (Blau 1970), prospector strategy, defender strat-

egy (Miles and Snow 1978), diversification, vertical integration (Rumelt 1974), and task interdependence (Thompson 1967) are some of the better-established contingencies. These contingency factors can be reduced to a few common, underlying concepts. We shall argue that there are three underlying contingencies: task uncertainty, task interdependence, and size.

Task Uncertainty

The set of contingencies made up of task uncertainty, technology, technological change, innovation, and environmental instability have an underlying concept of *uncertainty.* Environmental and technological change lead to uncertainty for the organization and its managers, creating uncertainty in the tasks conducted inside the organization. This task uncertainty is reinforced by the need for innovation that is part of the response to environmental and technological change (Burns and Stalker 1961; Hage and Aiken 1970). The technology used by the organization to transform its inputs into outputs also reflects differences in task uncertainty and feeds back to affect task uncertainty (Woodward 1965). More advanced technology requires greater predictability of the tasks, while also increasing task predictability (Woodward 1965). Thus task uncertainty is the core concept underlying this set of contingency factors. Moreover, the distinction between defender versus prospector strategy (Miles and Snow 1978) is, in large degree, that between cost reduction through routine operations versus innovation, and so it also relates to the underlying contingency of task uncertainty. Hence a parsimonious treatment of contingencies can reduce these contingency variables to task uncertainty, for many purposes.

Task Interdependence

A second set of contingency factors, including aspects of strategy, clusters around the underlying contingency of task interdependence. Task interdependence classifies in what way activities in an organization are connected with each other: pooled (indirect connection only), sequential (direct, one-way connection), and reciprocal (direct, two-way connection; Thompson 1967). Some of the major contingencies of strategy can be subsumed under task interdependence. Diversification—whether of products, services, or customers—is an aspect of the strategy of a firm (Rumelt 1974). It is achieved strategy that is manifested in a set of concrete activities, rather than being strategy as an intention. Similarly, vertical integration is an aspect of achieved strategy (Rumelt 1974). Diversification and vertical integration describe how far the activities of a firm are

closely connected, or not, in the horizontal (diversification) and vertical (vertical integration) dimensions, respectively. Diversification and vertical integration may therefore both be grouped under the concept of task interdependence. High diversification, such as in a firm that makes unrelated products, is pooled interdependence among the products (Thompson 1967). Vertical integration is sequential interdependence between the stages of the value-added chain within the firm. An undiversified firm, such as one making a single product, will have close connections among the functional departments because all are involved with the same product, so that its interdependence is also sequential. However, there may also be reciprocal interdependence among the functional departments, if there is innovation, requiring interaction between the research and other departments (Lorsch and Lawrence 1972). Hence the strategy contingencies of diversification and vertical integration can be subsumed under task interdependence, as can the interactions between functions stemming from innovation.

Support for the idea that many contingencies are reducible to task uncertainty and task interdependence may be taken from Dess and Beard (1984). They review a number of conceptualizations of environmental contingencies and argue that they can be reduced to three dimensions: dynamism (which subsumes stability-instability and turbulence), complexity (which subsumes homogeneity-heterogeneity and concentration-dispersion), and munificence (which subsumes capacity). They show that twenty-three environmental variables that compare across fifty-two different industries reduce in a factor analysis to the three underlying factors of dynamism, complexity, and munificence. Several authors have identified dynamism as one of the major environmental contingencies of organizations (Child 1975; Duncan 1972; Thompson 1967). Dess and Beard (1984) emphasize that dynamism is not simply the rate of change, which itself could be constant, thereby rendering the environment predictable, but rather the degree of unpredictability. As they state, “Dynamism should be restricted to change that is hard to predict and that heightens uncertainty for key organizational members” (p. 56). This confirms the importance of uncertainty as a key element of dynamism. Therefore dynamism can largely be subsumed under uncertainty. Similarly, the homogeneity-heterogeneity aspect of their environmental complexity concept relates to the degree of diversification of the organization, because diversification across diverse product-markets renders the environment more heterogeneous. Given that diversification relates to task interdependence, environmental complexity relates, in turn, to the task interdependence contingency. Thus two of the environmental contingency concepts of Dess and Beard, dynamism and complexity, map onto the intraorganizational contingencies of task uncertainty and task interdependence, respectively.

The third environmental contingency concept of Dess and Beard (1984), munificence, relates to the quantity of slack resources, which we discuss below (in Chapter 9) mainly as a moderator, whereby economic stringency fosters organizational change. Similarly, the concentration-dispersion aspect of their complexity concept taps the degree of competition in the environment of an organization, which again moderates organizational change (as will also be discussed in Chapter 9). Thus the three dimensions identified by Dess and Beard in their parsimonious model of the environment are consistent with our proposal that task uncertainty and task interdependence are major underlying contingencies and that competition and lack of munificence moderate the organizational change that occurs in response to these two contingencies. Similarly, Lawrence and Dyer (1983) argue that industrial environments form two dimensions, information complexity, which taps uncertainty stemming from variations, and resource scarcity; these two dimensions relate to the task uncertainty contingency and resource munificence moderator being used herein.

Thus many of the contingency variables can be classified under either task uncertainty or task interdependence. Clearly, these two concepts can themselves be subsumed under the concept of a task contingency.

Size

A different contingency is size. Size has turned out to be a major contingency factor that affects many different aspects of structure and many of them quite strongly (Blau 1972; Child 1973a; Pugh, Hickson, Hinings, and Turner 1969). The size contingency is the number of organizational members who are to be organized (Blau 1970), determining the structure that is required. Size is therefore appropriately operationalized in empirical studies by the number of employees (Pugh et al. 1969; Pugh and Hinings 1976). However, the number of employees is conceptually and empirically closely related to other aspects of organizational membership, such as the number of members in a labor union (Donaldson and Warner 1974). The number of employees is also often closely correlated with other aspects of the scale of an organization, such as sales or assets, so that these variables may be used as indicators for size (see Child 1973a, p. 170, Table 1; Donaldson 1996b, pp. 147–156; Hopkins 1988; Lioukas and Xerokostas 1982). However, they are not always highly correlated, so that they are, at best, mere proxies for the number of employees, which remains the operational measure of size.

Organic and Bureaucracy Theories

There are two contrasting contingency theories of organizational structure that are influential in the structural contingency literature: the organic and the bureaucracy theories. Each theory has a different model of organizational structure that needs to be distinguished.

Organic Theory

Organic theory considers the fundamental dimension of organizational structure to be a continuum that runs from the poles of mechanistic to organic structure (Burns and Stalker 1961). The mechanistic structure is top-down so that top management seeks to control lower-level employees in every way possible. Top management centralizes decision making, so that it makes decisions about what should happen (Burns and Stalker 1961). It also gives subordinates detailed job assignments that define their responsibilities (Burns and Stalker 1961). Further, top management lays down rules that employees are to follow and documents they must use, such as forms that they must fill out (Weber 1968). Thus the mechanistic structure can be defined as centralized in decision making, specialized in roles and formalized (much use of rules and documents; Hage 1965; Pennings 1992). In contrast, the organic structure is decentralized (so that lower-level employees exercise autonomy in decision making) and also low on functional specialization and formalization, so that how employees should do their jobs is not prescribed by top management (Burns and Stalker 1961). Thus the organic structure neither controls employees through centralization nor through functional specialization and formalization. Instead, the organic structure relies on the initiative and expertise of middle-level and lower-level employees. Hence in the organic model of structure, lower-level employees are only lightly controlled by their organization. In sum, the mechanistic structure is centralized and high on both functional specialization and formalization, whereas the organic structure is decentralized and low on both functional specialization and formalization (Hage 1965; Pennings 1992).

The contrast between mechanistic and organic structures defines a single structural dimension. Thus organizations that are centralized are also specialized and formalized (i.e., mechanistic). Conversely, if the organization is decentralized, it will also be low on specialization and formalization (i.e., organic). Mechanistic and organic are two poles of a continuum of mechanistic and organic, with organizations distributed at points along that continuum. But if an organization is middling on centralization, then the organization will also be

likely to be middling on specialization and formalization, because all three structural variable go together as part of the same dimension. According to the organic theory, the mechanistic-organic structure fits the contingency of task uncertainty (Hage and Aiken 1969). Specifically, the mechanistic structure fits low task uncertainty, whereas the organic structure fits high task uncertainty. Much of the task uncertainty comes from the environment of the organization, caused by high levels of technological and market change requiring the organization to innovate in order to remain effective and competitive, that is, to have high performance (Burns and Stalker 1961). Where task uncertainty is low, the knowledge and information possessed by senior managers enables them to exercise high control over all operations and employees so that the organization is effective. However, where task uncertainty is high, much expertise and information is distributed among employees, so that they have to be empowered to use their initiative and make decisions in a participatory manner, in order for the organization to innovate and be effective (Burns and Stalker 1961). Increasing task uncertainty over time requires an organization to change its structure from mechanistic toward organic in order to maintain fit (Burns and Stalker 1961; Hage and Aiken 1970). Thus the structural variables of centralization, specialization, and formalization go together because high levels of each provide the greater levels of hierarchical direction that fit highly certain tasks, while low levels of each also go together because they provide the participation that fits highly uncertain tasks. In this way arises the concept of the organizational structure as a single dimension from mechanistic to organic. This structural concept has been used in much contingency theory research (Burns and Stalker 1961; Dewar and Hage 1978; Hage 1965, 1974, 1980, 1988; Hage and Aiken 1967a, 1967b, 1969; Hage and Dewar 1973).

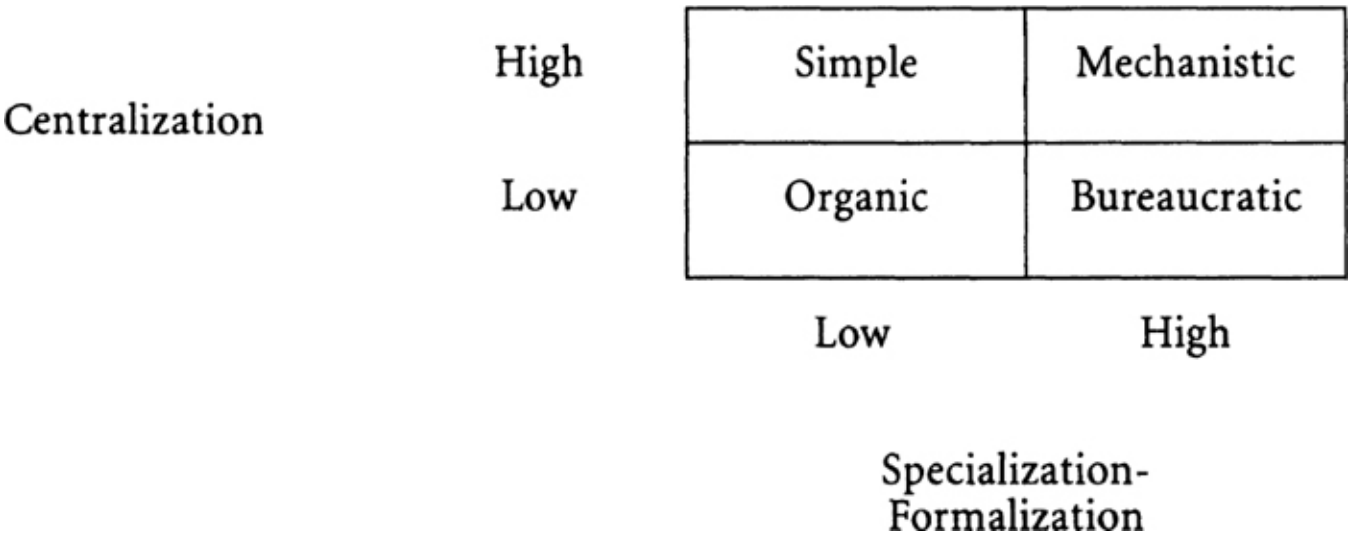
Bureaucracy Theory

In contrast, bureaucracy theory considers the fundamental dimension of organizational structure to be a different continuum, which runs from the poles of unbureaucratic, that is, simple, structure to bureaucratic structure. There exists a simple type of organizational structure that is centralized as well as being low on functional specialization and formalization (Mintzberg 1979). Conversely, there is a bureaucratic type of organizational structure that is decentralized as well as being high on functional specialization and formalization (Child 1972a; Weber 1968). Thus top management either controls employees directly through making decisions (centralization) in the simple structure, or indirectly through tight job definitions (specialization) and

rules (formalization) in the bureaucratic structure (Blau and Schoenherr 1971). Top management substitutes between such direct and indirect controls, but does not try to use high levels of both simultaneously. Thus top management is applying sufficient control, rather than maximizing control. There is a continuum of degrees of bureaucratization, and an organization can lie at any point along it (Child 1972a).

A simple structure, while being low on specialization and formalization like the organic structure, is, nevertheless, not organic because the simple structure is centralized, rather than being decentralized like the organic structure. Similarly, a bureaucratic organization, though highly specialized and formalized like the mechanistic structure, is decentralized and so is not mechanistic. Thus the organic and bureaucratic models of organizational structure differ according to their view about the dimension that underlies organizational structure. This dimension is composed of the two structural elements of centralization and specialization-formalization. These elements can be combined in two different ways to yield the organic and bureaucracy theories (see Figure 1.3). Organic theory sees centralization as positively correlated with specialization-formalization. Low centralization goes with low specialization-formalization in the organic structure. High centralization goes with high specialization-formalization in the mechanistic structure (Hage 1965; Pennings 1992). In contrast, bureaucracy theory sees centralization as negatively correlated with specialization-formalization. High centralization goes with low specialization-formalization in the simple structure. Low centralization goes with high specialization-formalization in the bureaucratic structure (Child 1972a).

Figure 1.3. Organizational Structures in Organic and Bureaucratic Theory



According to bureaucracy theory, the level of bureaucratization of the structure fits the contingency of size (i.e., the number of organizational employees; Child 1975). Specifically, a low level of bureaucratization fits a small organization. Thus, for a small organization, the fitting structure is high on centralization and low on specialization and formalization (i.e., a simple structure). The limited complexity of decision making, resulting from small size, allows top management to directly control the organization through making the decisions. Conversely, a high level of bureaucratization (i.e., a bureaucratic structure) fits a large organization. Thus, for a large organization, the fitting structure is low on centralization and high on specialization and formalization. Increasing complexity and a tall hierarchy, resulting from size, requires top management to delegate many decisions. Also, size fosters the division of labor, and the recurrent nature of many decisions allows them to be formalized. Increasing size of an organization requires that its structure change from simple toward bureaucratic, to maintain fit and effectiveness.

There is some difference between the organic and bureaucratic theories in their concept of decentralization. Bureaucracy theory sees increased decentralization as being mainly delegation of authority down to middle managers, with some occasional delegation to workers (Chandler 1962; Child 1973a). Organic theory includes managerial delegation, but also autonomy and participation in decision making by technical experts at low levels in the hierarchy (Hage 1980) and even by shop-floor workers (Wall, Corbett, Martin, Clegg, and Jackson 1990). Thus the real extent of decentralization is greater under organic theory than under bureaucracy theory. Similarly, the organic structure includes also lateral forms of coordination such as cross-functional project teams and ad hoc communication (Lawrence and Lorsch 1967). These nonhierarchical coordination mechanisms provide additional forums in which participation occurs.

Organic theory sees the degree to which organizational structures are organic as being driven by the need to fit not only the situational contingency of task uncertainty but also the human needs and aspirations of organizational members (Lorsch and Morse 1974). Thus the argument about replacing mechanistic with organic structures is advocating more participatory structures that not only offer effectiveness benefits through fit but also accord better with humanistic values. This creates a tension with the bureaucratization theory that tends to argue the need for bureaucratization according to a Weberian logic of subjugation of the organizational member in pursuit of effectiveness (Weber 1968).

The organic and bureaucracy theories tend to differ in their views about the direction in which organizational

structures are headed over time. Organic theory sees the trend as being for task uncertainty to increase, because of increases in scientific knowledge and innovation rates, so that organizations increase over time the degree to which their structures are organic (Burns and Stalker 1961; Hage 1988). In contrast, bureaucracy theory sees a tendency toward increasing levels of bureaucratization, because of increasing concentration in fewer, larger organizations of global reach, facilitated by modern communications technologies (Weber 1968). In a formal sense both theories logically imply that an organization could move counter to the trend, if its contingencies changed in the opposite direction, such as task uncertainty reducing or size decreasing. Clearly a number of organizations have downsized in the 1980s and 1990s, so that there could be said to be something of a countertrend away from growth in certain quarters (Budros 1997; Cascio 1993; Littler and Bramble 1995). Nevertheless, bureaucracy theory tends to see increasing use of the bureaucratic structure (Blau and Meyer 1987), while organic theory depicts increasing use of the organic structure (Burns 1963; Flanders, Pomeranz, and Woodward. 1968; Hage 1974, 1980, 1988). Thus organic theory foresees decreasing specialization and formalization, while bureaucracy theory foresees them increasing. Both theories foresee increasing decentralization, though the extent is greater for organic than for bureaucratic theory. Hence organic and bureaucracy theories are optimistic or pessimistic, respectively, about the likelihood of increasing employee participation and freedom from regulation. Thus the divergence between the organic and bureaucracy theories connects with different policy prescriptions, value positions, and predictions about the future that help to animate the debate between them.

As just seen, organic and bureaucracy theories are to some degree in conflict, making rival analyses about structural trends. This conflict becomes played out as a controversy in the structural contingency literature about the role of task versus the size contingency. Organic theory seeks to promote task as the major contingency, so that task strongly and pervasively shapes organizations, leading them to take on the organic structure, especially as task uncertainty increases (e.g., Burns 1963; Hage 1988). Bureaucracy theory seeks to show, in contrast, that size is the more important contingency, in terms of the number of structural aspects it affects and the strength of the relationships, leading organizations to take on the bureaucratic structure as their size increases (Child 1973a). At the extremes, bureaucracy theory argues that the task has only limited effects (Child and Mansfield 1972) or that its effects are the opposite to those that organic theory asserts (Blau, Falbe, McKinley, and Tracy 1976). These controversial issues will be discussed in the ensuing chapters (especially Chapters 3 and 5).

Thus far we have contrasted the organic and bureaucracy theories on the structural elements of centralization and specialization-formalization. However, the concept of bureaucracy is wider than just these elements and entails two other aspects of structure: structural differentiation and divisionalization. *Structural differentiation* refers to the extent to which the organization is split into separate parts, both horizontally (the number of divisions, the number of job titles, the span of control of the CEO, etc.) and vertically (the number of levels in the hierarchy; Blau 1970). Conceptually, a bureaucratic structure has a high level of structural differentiation, for example, many departments and hierarchical levels (Blau and Schoenherr 1971; Pugh, Hickson, Hinings, and Turner 1968; Weber 1968). Divisionalization can also be thought of as another aspect of bureaucracy, because it features decentralization and increased functional specialization and formalization (Chenhall 1979; Grinyer and Yasai-Ardekani 1981). Divisionalization also correlates positively with structural differentiation, both horizontally (span of control of CEO) and vertically (hierarchical levels; Grinyer and Yasai-Ardekani 1981), thereby cementing the connection between divisionalization and bureaucratic structure. The inclusion of structural differentiation and divisionalization under the concept of bureaucracy is a further way in which it differs from the organic structural concept.

Task interdependence is a minor contingency of both the organic and the bureaucratic structures. As seen, task uncertainty is the main contingency determining whether structure is mechanistic or organic. However, task interdependence determines whether coordination mechanisms are of the mechanistic or organic type, so that task interdependence is a secondary contingency of organic structure. According to Thompson (1967), where task interdependence is pooled, then the fit is standardization, that is, rules and procedures set by the hierarchy, that is, a mechanistic coordination mechanism. Where task interdependence is sequential, then the fit is planning by the hierarchy, that is, another mechanistic coordination mechanism. In contrast, where task interdependence is reciprocal, then the fit is mutual adjustment between organizational members, that is, an organic coordination mechanism (Thompson 1967). Hence lower (i.e., pooled and sequential) task interdependence requires mechanistic coordination mechanisms, whereas high (i.e., reciprocal) task interdependence requires organic coordination mechanisms. Combining both task contingencies, low task uncertainty and low task interdependence are fitted by mechanistic structures, while high task uncertainty and high task interdependence are fitted by organic structures.

The task interdependence contingency also affects bureaucratic structure in that task interdependence affects

divisionalization. Increasing diversification decreases the task interdependence between product-markets, so that the fitting structure is divisional rather than functional (Chandler 1962; Rumelt 1974). Given that divisionalization is a minor component of overall bureaucratic structure, then task interdependence is a minor contingency of bureaucracy. Task interdependence is a minor contingency relative to size, which strongly affects many of the other aspects of bureaucratic structure (e.g., formalization). Overall, increasing task interdependence leads from divisions coordinated mechanistically to functions coordinated organically.

Thus, whereas organic and bureaucracy theories differ in emphasizing the task uncertainty and size contingencies, respectively, both theories can be extended in a way that incorporates task interdependence as a contingency, thereby constituting a commonality between the organic and bureaucratic models of organizational structure.

Using the three contingencies and the two theories, we can cross-classify them, as shown in Table 1.1. The rows are the three contingencies: task uncertainty, task interdependence, and size. The columns are the two theories: organic and bureaucracy. The cross-classification yields six cells and into each cell is placed the names of some of the major authors.

Table 1.1 Key Authors in Structural Contingency Theory Research

CONTINGENCIES	THEORIES	
	Organic	*Bureaucracy*
Task Uncertainty	Burns & Stalker Hage Lawrence & Lorsch Perrow Woodward	
Task Interdependence	Lawrence & Lorsch Thompson	Chandler Grinyer & Ardekani
Size		Aston Group Blau

Synthesis of Organic and Bureaucracy Theories

It is possible to synthesize the organic and bureaucracy theories in an integrated model of organizational structure. This shows that structural contingency theory, while it contains tensions (as discussed above), is not fragmented or inchoate. Combining the size and task contingencies we can say the following (see Figure 1.4). As organizations grow in size they increase specialization-formalization, structural differentiation, and decentralization. As task interdependence decreases because of diversification, this causes divisionalization, so that decentralization increases, as does specialization-formalization (e.g., creation of profit reporting) and structural differentiation (e.g., the number of levels), beyond that which would exist for its size alone. Conversely, increasing task interdependence leads to a functional structure, which implies less specialization-formalization, structural differentiation, and decentralization, as shown by the negative effects of task interdependence on these three structural variables in Figure 1.4. As task uncertainty increases, for example, through increased innovation in products or services, there is a reduction in formalization and an increase in decen-

tralization. The reduction in formalization from increasing task uncertainty offsets to a degree the increase in formalization coming from size increase. However, the reduction in formalization from increasing task uncertainty reinforces the decrease in formalization that comes from any increase in task interdependence. The decentralization from increasing task uncertainty adds to that coming from increasing size. However, the increase in decentralization from increasing task uncertainty offsets to a degree the decrease in decentralization coming from any increase in task interdependence. As will be seen below (Chapters 2 and 3), much of the reduction in formalization and increase in decentralization resulting from task uncertainty is localized in specific parts of the organization, but for the present we are discussing overall structural levels of the organization as a whole.

Figure 1.4. Overall Contingency Theory Model of Organizational Structure

Contingencies	Organizational Structure		
	Specialization-Formalization	Structural Differentiation	Decentralization
Size	+	+	+
Task Interdependence	-	-	-
Task Uncertainty	-		+

Synthesizing the bureaucratic and organic theories in this way gives a sense that it is possible to integrate structural contingency research into a model that is theoretically coherent and only modestly complex. However, the view of the two theories is highly condensed and so requires a great deal of explanation and justification regarding the theory and the supporting empirical research. We will consider first the organic theory and its supporting research (in Chapter 2) and second, bureaucracy theory and its research (in Chapter 3).

While task uncertainty and size are treated as independent contingencies in the literature, the possibility nevertheless arises that they may be brought together causally, so that one causes the other. This would constitute a causal synthesis in structural contingency theory, which would further increase its integration. A derived question is whether this causal integration would lead to theoretical integration of the organic and bureaucrat-

ic theories. These issues will be discussed in Chapter 3.

Plan of the Book

In Chapter 2 we discuss organic theory and its supporting empirical research.

In Chapter 3 we discuss bureaucracy theory and its supporting empirical research. We also attend to the issue of reconciliation between the organic and bureaucratic theories in two ways. A model that synthesizes both the organic and the bureaucratic theories is presented. The possibility of a causal relationship between task and size, the two major contingencies of organic and bureaucratic theories, is then discussed.

In Chapter 4 we consider the prevailing causal models among size and the bureaucratic structural variables. These are seen to be problematic from the viewpoint of contingency theory. They are reformulated so as to have causality work through fit, as contingency theory holds. Also discussed are reasons why some size and structural relationships are curvilinear rather than linear. A further issue that receives attention is the relationship between the systems functionalism of contingency theory and the actions by people that create causation at the systems level.

In Chapter 5 we consider some of the controversies in and around contingency theory that reflect the ongoing tension between the organic and bureaucratic theories. The rival claims of these two theories regarding the technology and size contingencies have led to controversy about their relative strengths as determinants of structure and also to what is the effect of technology on structure. These issues will be critically discussed. The idea that bureaucracy is made inevitable because of determination by contingencies such as size has been considered repellant enough by some scholars to lead to questioning of determinism. Critics have asserted that there is strategic choice, opening up the possibility of choice in favor of more participatory, organic structures. The arguments for choice will, in turn, be critically examined. Again, the causal theory that contingencies cause structure has been questioned by proposing that contingency is not a cause but just a correlate of structure, or that structure causes contingencies. Either way again escapes from structures, such as bureaucracy, as being inevitable, so opening the door to a choice of alternatives, such as participatory, organic structures. Therefore we shall need to critically examine the issues of causality and reverse causality. Concepts and variables from contingency theory research are sometimes used within the framework of configu-

rations. This posits that there are only a few types and that they need not fit any contingencies, so removing contingency determinism. Moreover, organizational change is held to be problematic and therefore infrequent and sharply discontinuous. We will critically examine configurations. There is a stream of contingency theory concerned with organizational power, which has attracted some criticism, so this is also discussed in Chapter 5.

In Chapter 6 we examine explanations alternative to contingency theory that come from other organizational theories such as institutional, organizational economics, political, and population ecology theories. We show that contingency theory offers a sound explanation despite the challenge posed by these theories.

A central idea in contingency theory is that the fit of organizational characteristic to the contingency factor leads to higher organizational performance. The question thus arises as to whether this is just a tautology. This raises the issue of what is a fit, how to identify it, and how to show empirically that it raises performance. These philosophical, conceptual, and methodological issues are discussed in Chapter 7.

In Chapter 8 we review studies of the relationship between fit and performance. We show that there is a body of empirical work that validates the idea that contingency fits positively affect performance. However, there are also technical problems that can obscure the strength of the effects of fit on performance and so need to be corrected in future research. The discussion identifies eight lessons that can help make future research more valid and reveal more fully the importance of contingency fit.

In Chapter 9 we identify some theoretical problems within contingency theory and suggest how they may be overcome. This new theory construction makes contingency theory more coherent. The proposed theoretical reformulation also makes contingency theory more dynamic, through the concept of a disequilibrium theory, so that it becomes a more comprehensive theory of organizational adaptation and growth. A central idea is that organizational change is performance driven, and this insight is formalized through organizational portfolio theory. Again, problems in structural adaptation to changes in the contingency are addressed through the concept of quasi-fit. Furthermore, it is suggested that the concept of fit itself may be improved through reconceptualizing fit in a way that is consistent with the model of organizational adaptation dynamics that is being used in this book. Some of the new theorizing in this chapter draws upon ideas from economics and finance and so benefits from cross-fertilization from those disciplines.

Finally, in Chapter 10 we identify some possible future opportunities and challenges for contingency theory in organizational science. The preceding theoretical discussion is drawn upon to suggest hypotheses that might

be used by scholars in future organizational research. The new concepts and theories presented as part of neo-contingency theory, such as disequilibrium, organizational portfolio theory, and quasi-fit, are discussed and suggestions are made on how to test them in future empirical research. A new operational definition of the effect of fit on organizational performance is also presented as a guide to future investigation into this key topic.

- contingency theory
- structural contingency theory
- structural theory
- interdependence
- bureaucratic theory
- organizational structure
- bureaucracy

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