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# STRATEGIC RESPONSES TO INSTITUTIONAL PROCESSES

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This article applies the convergent insights of institutional and resource dependence perspectives to the prediction of strategic responses to institutional processes. The article offers a typology of strategic responses that vary in active organizational resistance from passive conformity to proactive manipulation. Ten institutional factors are hypothesized to predict the occurrence of the alternative proposed strategies and the degree of organizational conformity or resistance to institutional pressures.

Theory and research on institutionalization have generated valuable insights into the processes that define and explain institutionalization in organizational environments and their influence on organizational conformity to the environment. Early versions of institutional theory placed particular emphasis on the taken-for-granted character of institutional rules, myths, and beliefs as shared social reality and on the processes by which organizations tend to become instilled with value and social meaning (Berger & Luckmann, 1967; Selznick, 1949, 1957). More recent treatments of institutionalization have elaborated the nature and variety of these institutional processes (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977, 1988) and the range of influences that these processes exert on structural characteristics of organizations (Meyer, Scott, & Deal, 1983; Meyer, Scott, & Strang, 1987; Scott, 1987a; Scott & Meyer, 1987; Singh, Tucker, & House, 1986) and organizational change (Hinings & Greenwood, 1988; Tolbert & Zucker, 1983). Notably lacking from this literature, however, is explicit attention to the strategic behaviors that organizations employ in direct response to the institutional processes that affect them.

The purpose of this article is to identify the different strategic responses that organizations enact as a result of the institutional pressures toward conformity that are exerted on them and to develop a preliminary conceptual framework for predicting the occurrence of the alternative strategies. In the absence of prior efforts to determine the strategic reactions of organizations to institutional influence, this article attempts to contribute to our understanding of the behavior of organizations in institutional contexts and the conditions under which organizations will resist institutionalization. The institutional perspective also has been increasingly criticized for its lack of attention to the role of organizational self-interests and active agency in organizational responses to institutional pressures and expectations (Co-

valeski & Dirsmith, 1988; DiMaggio, 1988; Perrow, 1985; Powell, 1985). It is proposed here that institutional theory can accommodate interest-seeking, active organizational behavior when organizations' responses to institutional pressures and expectations are not assumed to be invariably passive and conforming across all institutional conditions. This article applies the convergent insights of institutional and resource dependence theories to demonstrate how organizational behavior may vary from passive conformity to active resistance in response to institutional pressures, depending on the nature and context of the pressures themselves.

The point of departure for discussion is a comparison of institutional and resource dependence frameworks and their potential for complementarity in explaining organizational resistance and conformity to institutional pressures. A typology of strategic responses to institutional pressures that vary according to the degree of active agency and resistance exerted by the organization is then proposed. The remainder of the discussion integrates the institutional and resource dependence literatures into a set of antecedent conditions that are hypothesized to predict the likelihood that organizations will resist or conform to institutional pressures and expectations.

## COMPARISON OF INSTITUTIONAL AND RESOURCE DEPENDENCE PERSPECTIVES

Table 1 summarizes the convergent assumptions and differences in focus between institutional and resource dependence theories that are relevant to the characterization of strategic responses to external pressures and expectations. This comparison serves two purposes. First, the identification of several commonalities in the assumptions of these frameworks demonstrates the potential for resource dependence predictions of organizational strategy to complement the more limited range of organizational responses to institutional pressures that institutional theory has traditionally addressed. Second, the divergence in focus between these theories highlights the underlying assumptions about organizational behavior that institutional theorists need to acknowledge in order to rectify the overly passive and conforming depiction of organizations for which they have been criticized. These assumptions include the potential for variation in the degree of choice, awareness, proactiveness, influence, and self-interest that organizations exhibit in response to institutional pressures.

#### Convergent and Divergent Emphases

Context. According to both institutional and resource dependence perspectives, organizational choice is limited by a variety of external pressures (Friedland & Alford, 1987; Meyer et al., 1983; Pfeffer & Salancik, 1978), environments are collective and interconnected (DiMaggio & Powell, 1983; Pfeffer & Salancik, 1978; Powell, 1988), and organizations must be responsive to external demands and expectations in order to survive (Meyer & Rowan, 1977; Pfeffer & Salancik, 1978). For example, Rowan's (1982) study of educational organizations and Covaleski and Dirsmith's (1988) case study of

TABLE 1
Comparison of Institutional and Resource Dependence Perspectives

		Divergent Foci			
Explanatory Factor	Convergent Assumptions	Institutional Perspective	Resource Dependence Perspective		
	Organizational choice is constrained by	Institutional environment	Task environment		
	multiple external pressures	Nonchoice behavior	Active choice behavior		
Context of Organizational Behavior	Organizational environments are collective and	Conforming to collective norms and beliefs	Coping with interdependencies		
	interconnected Organizational survival	Invisible pressures Isomorphism	Visible pressures Adaptation		
	depends on responsiveness to external demands and expectations	Adherence to rules and norms	Management of scarce resources		
	Organizations seek stability and predictability	Organizational persistence Habit and	Reduction of uncertainty Power and influence		
Motives of Organizational Behavior	Organizations seek legitimacy	convention Social worthiness	Resource mobilization		
		Conformity to external criteria	Control of external criteria		
	Organizations are interest driven	Interests institutionally defined	Interests political and calculative		
		Compliance self-serving	Noncompliance self-serving		

a university's budgeting system both adopted an institutional perspective to explore the process of accommodating conflicting institutional demands and constraints.

Resource dependence theory also emphasizes that most organizations confront numerous and frequently incompatible demands from a variety of external actors (Pfeffer, 1982: 195; Pfeffer & Salancik, 1978: 45). Although institutional theorists have addressed both institutional and task or technical pressures (Scott, 1983b; Scott, 1987b; Scott & Meyer, 1983), institutional theory focuses more specifically on the pressures and constraints of the institutional environment. *Institutions* are defined here as regulatory structures, governmental agencies, laws, courts, and professions (Scott, 1987a: 498). In accordance with most institutional theorists (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Meyer & Scott, 1983; Zucker, 1987a), institutional constituents that exert pressures and expectations include not only the state and professions, as institutions, but also interest groups and public opinion (Scott, 1987b: 114). Resource dependence theory tends to emphasize the task

environment, although this perspective has also addressed the social environment of organizations (Pfeffer & Salancik, 1978: 147–152) and the effect of state pressures on organizations (Pfeffer, 1972a; Salancik, 1979).

Differences in emphasis on the institutional versus task environment suggest different loci of external power (those who shape and enforce institutional rules and beliefs versus those who control scarce resources) and different linkage processes between the organization and environment (exchange and resource flows versus incorporation and isomorphism) (Scott, 1987b: 194). These differences, in turn, lead to alternative conclusions about appropriate responses to the environment. Institutional theorists have emphasized the survival value of conformity with the institutional environment and the advisability of adhering to external rules and norms (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Resource dependence theorists stress the organizational necessity of adapting to environmental uncertainty, coping with problematic interdependencies, and actively managing or controlling resource flows (Pfeffer & Salancik, 1978).

These differences in the appropriate mode of responsiveness to the environment reflect divergent assumptions about the degree of choice, awareness, and self-interest that organizations possess for handling external constraints. Resource dependence theory focuses on a wide range of active choice behaviors that organizations can exercise to manipulate external dependencies or exert influence over the allocation or source of critical resources (Pfeffer & Salancik, 1978: 113-142; Scott, 1987b: 181-194; Thompson, 1967). By comparison, institutional theory has tended to limit its predictions to different types of structural or procedural conformity to the environment (Scott, 1987b: 194-198). Institutional theory is also capable of explaining nonchoice behavior in the context of taken-for-granted norms and beliefs. Organizations are predicted to conform to institutionalized beliefs or practices when these beliefs or practices are so externally validated and accepted by organizations as to be invisible to the actors they influence (DiMaggio, 1988), or when their "social fact" quality renders them the only conceivable, "obvious," or "natural" way to conduct an organizational activity (Berger & Luckmann, 1967; Zucker, 1977, 1987a).

So, for example, business organizations may, without question, define and structure their activities around particular functions—sales, finance, production—that reflect institutionalized and prefabricated classifications of appropriate structure (Meyer & Rowan, 1977). Therefore, institutional theory illustrates how the exercise of strategic choice may be preempted when organizations are unconscious of, blind to, or otherwise take for granted the institutional processes to which they adhere. Moreover, when external norms or practices obtain the status of a social fact, organizations may engage in activities that are not so much calculative and self-interested as obvious or proper. For example, corporate social responsibility and the maintenance of sound organizational ethics may not be invariably reducible to strategic behaviors induced by the anticipation of organizational gain. Organizations may act ethically or responsibly not because of any

direct link to a positive organizational outcome (e.g., greater prestige or more resources) but merely because it would be unthinkable to do otherwise. In this way, organizational behavior may be driven not by processes of interest mobilization (DiMaggio, 1988), but by preconscious acceptance of institutionalized values or practices.

Both proponents of institutional and resource dependence perspectives, therefore, assume that organizational choice is possible within the context of external constraints, but institutional theorists have tended to focus on conformity rather than resistance, passivity rather than activeness, and preconscious acceptance rather than political manipulation in response to external pressures and expectations. Stated differently, institutional and resource dependence theorists have attributed different degrees of resistance, activeness, and self-interested awareness to the behavior of organizations responding to external constraints and demands.

Motives. Both institutional and resource dependence theories suggest that organizations attempt to obtain stability and legitimacy (DiMaggio, 1988; DiMaggio & Powell, 1983; Dowling & Pfeffer, 1975; Meyer & Rowan, 1983; Pfeffer & Salancik, 1978; Zucker, 1986). Both perspectives also assume that organizations may be interest driven, although interests tend to be socially or institutionally defined from an institutional perspective (Hinings & Greenwood, 1988; Scott, 1987a) and "self-interested behavior tend[s] to be smuggled into institutional arguments rather than theorized explicitly" (DiMaggio, 1988: 9). As noted previously, institutional theory is also capable of explaining organizational responses that are not precipitated specifically by interest mobilization.

The explanatory processes underlying motives of stability differ between the two perspectives. Institutional theory focuses on the reproduction or imitation of organizational structures, activities, and routines in response to state pressures, the expectations of professions, or collective norms of the institutional environment (DiMaggio & Powell, 1983; Zucker, 1977: 728). Several studies, for example, have demonstrated how institutional features become transmitted, sustained, and resistant to change over time as a result of conformity to institutional rules or expectations (Tolbert, 1985; Tolbert & Zucker, 1983). In contrast, resource dependence theorists argue that organizational stability is achieved through the exercise of power, control, or the negotiation of interdependencies for purposes of achieving a predictable or stable inflow of vital resources and reducing environmental uncertainty.

The degree of, and desire for, power attributed to the organization in relation to its environment occupies a central role in explaining the divergent assumptions of these two theories. Resource dependence theory assumes that organizations exercise some degree of control or influence over the resource environment or the organization's exchange partners for purposes of achieving stability. In contrast, institutional explanations of reproduction and isomorphism emphasize the role of conformity, habit, and convention, rather than organizational power and control, in contributing to stability, and power tends to be attributed to the institutional environment

rather than the organization (e.g., DiMaggio and Powell's, 1983, predictions of coercive isomorphism). Therefore, variation in the capability and motives of organizations to exercise power or influence over external pressures is an important dimension of the theories' divergent approaches to the characterization of organizational responses to the environment.

Both perspectives also emphasize the importance of obtaining legitimacy for purposes of demonstrating social worthiness and mobilizing resources, although resource dependence theory places more emphasis on the instrumentality of legitimacy for the latter purpose (Benson, 1975; Hinings & Greenwood, 1988; Pfeffer, 1981: 327) and the potential for controlling or co-opting rather than conforming to externally imposed criteria of acceptable behavior. Differences in the degree of influence or control attributed to organizations in manipulating or controlling the environment also have implications for the presumed utility of organizational conformity to the environment. According to institutional theory, conformity is useful to organizations in terms of enhancing organizations' likelihood of survival.

As Covaleski and Dirsmith (1988: 563) noted: "the general theme of the institutional perspective is that an organization's survival requires it to conform to social norms of acceptable behavior." The self-serving advantages of compliance with institutional norms and requirements are revealed in the variety of rewards to which organizational conformity has been related in the institutional literature, for example, increased prestige, stability, legitimacy, social support, internal and external commitment, access to resources, attraction of personnel, fit into administrative categories, acceptance in professions, and invulnerability to questioning (DiMaggio, 1988; DiMaggio & Powell, 1983; Meyer & Rowan, 1977, 1983; Meyer & Scott, 1983; Meyer et al., 1983; Scott, 1983a; Zucker, 1988). Resource dependence theory, in contrast, elaborates the virtues of noncompliance.

According to the resource dependence perspective, firms do not merely respond to external constraints and control through compliance to environmental demands. Rather, a variety of strategies may be undertaken to somehow alter the situation confronting the organization to make compliance less necessary. (Pfeffer, 1982: 197)

The advantages of noncompliance, from a resource dependence perspective, include the ability to maintain discretion or autonomy over decision making, the flexibility to permit continual adaptation as new contingencies arise, and the latitude to alter or control the environment in accordance with organizational objectives.

Institutional and resource dependence perspectives, by virtue of their divergent foci, have therefore differed in their typifications of organizational influence in response to the environment and the strategic utility of organizational compliance with external constraints and demands. Relative to resource dependence theory, institutional theory has tended to deemphasize both the ability of organizations to dominate or defy external demands and the usefulness to organizations of pursuing these types of strategies.

### Implications for Strategic Responses to Institutional Processes

Institutional theory offers several unique insights into organizationenvironment relations and the ways in which organizations react to institutional processes. An institutional perspective demonstrates how nonchoice behaviors can occur and persist, through the exercise of habit, convention, convenience, or social obligation, in the absence of any ostensible indication that these behaviors serve the organization's own interests or contribute to organizational efficiency or control (Tolbert, 1985; Tolbert & Zucker, 1983; Zucker, 1983). Institutional theory also draws attention to the causal impact of state, societal, and cultural pressures, as opposed to market forces and resource scarcity, on organizational behavior, and to the effects of history, rules, and consensual understandings on organizational conformity to environmental constraints. This perspective also explains how passive acquiescence, as opposed to strategic adaptation, to the external environment can contribute to the social validity and survival of an organization, and how myths, meaning, and values, rather than efficiency, autonomy, and exchange, may drive and determine organizational behavior in the context of external pressures.

Notwithstanding these substantial contributions, institutional theorists, by virtue of their focus, have tended to limit their attention to the effects of the institutional environment on structural conformity and isomorphism and have tended to overlook the role of active agency and resistance in organization-environment relations (Covaleski & Dirsmith, 1988; DiMaggio, 1988; Perrow, 1985; Powell, 1985). The foregoing comparison suggests that institutional theorists are capable of addressing a broad range of strategic responses to the institutional environment if they assume a potential for variation in the resistance, awareness, proactiveness, influence, and selfinterest of organizations. It is suggested here that organizational responses will vary from conforming to resistant, from passive to active, from preconscious to controlling, from impotent to influential, and from habitual to opportunistic, depending on the institutional pressures toward conformity that are exerted on organizations. Explicit recognition of the potential for variation in these dimensions of organizational behavior lays the conceptual groundwork for identifying alternative strategies in response to the institutional environment.

# A TYPOLOGY OF STRATEGIC RESPONSES TO INSTITUTIONAL PROCESSES

Based on the assumption of potential variation in these dimensions of organizational behavior, Table 2 provides a summary of the strategic behaviors that organizations may enact in response to pressures toward conformity with the institutional environment. Five types of strategic responses are proposed here, which vary in active agency by the organization from passivity to increasing active resistance: acquiescence, compromise, avoidance, defiance, and manipulation.

Strategies Tactics Examples Habit Following invisible, taken-for-granted norms Acquiesce Imitate Mimicking institutional models Comply Obeying rules and accepting norms Balance Balancing the expectations of multiple constituents Pacify Placating and accommodating institutional elements Compromise Bargain Negotiating with institutional stakeholders Conceal Disguising nonconformity Avoid Buffer Loosening institutional attachments Escape Changing goals, activities, or domains Dismiss Ignoring explicit norms and values Defv Challenge Contesting rules and requirements Attack Assaulting the sources of institutional pressure Co-opt Importing influential constituents Manipulate Influence Shaping values and criteria

Dominating institutional constituents and processes

TABLE 2
Strategic Responses to Institutional Processes

#### Acquiescence

Control

Although organizations commonly accede to institutional pressures, acquiescence may take alternative forms; these forms include habit, imitation, and compliance. Habit refers to unconscious or blind adherence to preconscious or taken-for-granted rules or values. Particularly when institutional norms have attained the persisting status of a social fact, an organization may be unaware of institutional influences and, accordingly, precluded from responding to them strategically. Under these conditions, organizations reproduce actions and practices of the institutional environment that have become historically repeated, customary, conventional, or taken-forgranted. Organizations, for example, reproduce widely institutionalized roles such as students and teachers, line managers and staff, and professional and clerical functions on the basis of conventional definitions of these activities (Scott, 1987b).

Imitation, which is consistent with the concept of mimetic isomorphism, refers to either conscious or unconscious mimicry of institutional models, including, for example, the imitation of successful organizations and the acceptance of advice from consulting firms or professional associations (DiMaggio & Powell, 1983). One such example is Galaskiewicz and Wasserman's (1989) study of mimetic processes, whereby organizational decision makers, under conditions of uncertainty, imitated the behavior of other actors in their environment, particularly those actors whom they knew and trusted.

Compliance, by comparison, is defined here as conscious obedience to or incorporation of values, norms, or institutional requirements. The elaboration of structural or administrative complexity in response to environmental complexity is one example of structural compliance, as Meyer, Scott, and Strang (1987) demonstrated in their study of American public school districts. Compliance is considered more active than habit or imitation, to the extent that an organization consciously and strategically chooses to comply with institutional pressures in anticipation of specific self-serving benefits that may range from social support to resources or predictability (DiMaggio, 1988; Meyer & Rowan, 1983; Pfeffer & Salancik, 1978).

For example, an organization may comply with external pressures because the approbation of external constituents or society enhances its legitimacy, increases its stability, or sustains the logic of confidence necessary to conduct organizational activities in good faith (Meyer & Rowan, 1983). Compliance may also establish the adequacy of "the organization as theory" (Meyer & Scott, 1983) by reducing the organization's vulnerability to negative assessments of its conduct, products, or services. For example, an organization's compliance with the variety of procedures specified by the Environmental Protection Agency elevates its legitimacy and protects it from public criticism and the financial penalties of noncompliance. Organizational acquiescence depends on the organization's conscious intent to conform, its degree of awareness of institutional processes, and its expectations that conformity will be self-serving to organizational interests.

#### Compromise

Although acquiescence may be instrumental to organizations, by virtue of the enhanced legitimacy and social support that acquiescence provides, organizations may consider unqualified conformity unpalatable or unworkable. Organizations are often confronted with conflicting institutional demands or with inconsistencies between institutional expectations and internal organizational objectives related to efficiency or autonomy. Under such circumstances, organizations may attempt to balance, pacify, or bargain with external constituents. These compromise tactics represent the thin edge of the wedge in organizational resistance to institutional pressures.

Rowan (1982) emphasized the central role of balance in explaining the diffusion and stabilization of structural innovation. From a strategic perspective, balance can be defined as a tactical response to institutional processes. Powell and Friedkin (1986: 262–265), for example, have described how a public television station was able to balance multiple funding sources by playing one funder off against another. Balancing tactics refer to the accommodation of multiple constituent demands in response to institutional pressures and expectations. More specifically, balance is the organizational attempt to achieve parity among or between multiple stakeholders and internal interests. Particularly when external expectations conflict (e.g., shareholder demands for increased efficiency versus public pressures for the allocation of corporate resources to a social cause), organizations' interests may be served most effectively by obtaining an acceptable compromise on competing objectives and expectations.

Pacifying tactics also constitute partial conformity with the expectations

of one or more constituents. In his analysis of health care organizations, Scott (1983a: 106) observed that these organizations may rail against the interference of government authorities but to do so is to "bite the hand that feeds them." Accordingly, these organizations tend to conform to at least the minimum standards of care and fiscal controls established by federal agencies. An organization that employs pacifying tactics typically mounts a minor level of resistance to institutional pressures, but devotes most of its energies to appeasing or placating the institutional source or sources it has resisted. One such example would be an organization that is coming under increasing pressure to discontinue the production of a potentially harmful product: It may continue to manufacture the product but will allocate considerable financial resources to redesigning the product to fit institutional expectations and to promoting its subsequent safety.

Bargaining is a more active form of compromise than pacifying. Bargaining tactics involve the effort of the organization to exact some concessions from an external constituent in its demands or expectations. For example, an organization may negotiate with a government agency to reduce the frequency or scope of its compliance with a newly instituted government policy. Resource dependence theorists, in particular, have elaborated the "negotiated environment" of organizations (Pfeffer & Salancik, 1978: 143–187), assuming that organizational relations with the environment are open to negotiation and the exchange of concessions.

Therefore, by way of an example, professional associations will bargain with government agencies on standards of acceptable service and accountability, and business organizations will bargain with union constituents and consumer advocacy groups to achieve an acceptable compromise on appropriate organizational processes or outputs. All three compromise tactics—balancing, pacifying, and bargaining—are employed in the spirit of conforming to and accommodating institutional rules, norms, or values, but in contrast to acquiescence, institutional compliance is only partial and organizations are more active in promoting their own interests.

#### Avoidance

Several institutional and resource dependence theorists have acknowledged the importance of avoidance as a response to institutional pressures (Meyer & Rowan, 1977, 1983; Meyer et al., 1983; Pfeffer & Salancik, 1978; Powell, 1988; Scott, 1987b; Thompson, 1967). Avoidance is defined here as the organizational attempt to preclude the necessity of conformity; organizations achieve this by concealing their nonconformity, buffering themselves from institutional pressures, or escaping from institutional rules or expectations.

Concealment tactics involve disguising nonconformity behind a facade of acquiescence. An organization, for example, may establish elaborate rational plans and procedures in response to institutional requirements in order to disguise the fact that it does not intend to implement them. Organizations may, additionally, engage in "window dressing"; ritualism; cere-

monial pretense; or symbolic acceptance of institutional norms, rules, or requirements (Meyer & Rowan, 1977). One example would be that in anticipation of scheduled site inspections by government representatives, organizations may display a variety of expected activities that are not a part of their normal routines. Concealment can therefore be distinguished from the acquiescent strategy of compliance by the degree to which conformity is apparent or real. From an institutional perspective, the distinction between appearance and reality is a theoretically important dichotomy (Scott, 1983b; Zucker, 1983), because the appearance rather than the fact of conformity is often presumed to be sufficient for the attainment of legitimacy.

Buffering refers to an organization's attempt to reduce the extent to which it is externally inspected, scrutinized, or evaluated by partially detaching or decoupling its technical activities from external contact (Pfeffer & Salancik, 1978; Scott, 1987b; Thompson, 1967). Institutional theorists have elaborated the virtues of decoupling internal work activities from formal structures and external assessment as a means of maintaining the faith and legitimacy of the organization once it is highly institutionalized (Meyer & Rowan, 1977, 1983; Meyer et al., 1983). Meyer and Rowan (1983), for example, explained how educational organizations are buffered from scrutiny of the details of instructional activities. Similarly, Powell (1988) has shown how an academic book publisher was able to buffer its technical activities from external demands because the production and manufacturing departments remained mainly in distant contact with the authors they served.

Where efficient technical production is independent of public approval, or public approval is not dependent on the organization's willingness to open itself to public scrutiny (e.g., the release of financial information), buffering tactics may serve the organization's interests, especially in terms of maintaining autonomy, minimizing external intervention, and maximizing efficiency. When the opposite is true (e.g., when a voluntary social service agency depends on public approval and scrutiny of its practices to obtain legitimacy and funding), the misguided effort to decouple organizational activities from public inspection and evaluation may throw the organization's activities open to suspicion and reduce its ability to obtain resources, legitimacy, or social support.

A more dramatic avoidance response to institutional pressures toward conformity is escape, that is, an organization may exit the domain within which pressure is exerted (Hirschman, 1970) or significantly alter its own goals, activities, or domain to avoid the necessity of conformity altogether. As an example: If government inspections and evaluations of an organization's compliance with pollution emission standards are considered too stringent by the organization, it may change its goals and activities so that the offending production process is no longer required, or it may move to an alternative location where rules and requirements are lenient or nonexistent. Certain chemical manufacturers have established production facilities in Third World countries to produce and sell chemicals that are now banned in North America, for example. In contrast to acquiescence and compro-

mise, which constitute strategic responses that organizations employ with the objective of partial or total conformity to institutional processes, avoidance is motivated by the desire to circumvent the conditions that make conforming behavior necessary.

#### Defiance

Defiance is a more active form of resistance to institutional processes. The three tactics of defiance in order of increasing active resistance are dismissal, challenge, and attack. *Dismissing*, or ignoring institutional rules and values, is a strategic option that organizations are more likely to exercise when the potential for external enforcement of institutional rules is perceived to be low or when internal objectives diverge or conflict very dramatically with institutional values or requirements. The temptation to ignore authority or the force of cultural expectations is exacerbated by deficient organizational comprehension of the rationale behind the institutional pressures and the consequences of noncompliance.

For example, an organization that chooses to ignore affirmative action requirements in the recruitment and selection of personnel may inadequately understand either the reasons for the policy or the ramifications of disobedience. Alternatively, the organization may argue, albeit unjustifiably, that the likelihood of "getting caught" is very low or that its success is not dependent on government approval and support. Salancik (1979), in his study of responsiveness to affirmative action pressures, for example, found the likelihood of compliance to be positively related to resource dependence on the government.

Challenge is a more active departure from rules, norms, or expectations than dismissal. Organizations that challenge institutional pressures go on the offensive in defiance of these pressures and may indeed make a virtue of their insurrection. The fact that schools, for example, conform to a highly institutionalized set of structures and procedures that define what a school "should be" suggests that institutional pressures for a common understanding of educational requirements (through the process of accreditation, adherence to shared classifications, etc.) predict and explain the structure and process of educational systems (Meyer & Rowan, 1983; Meyer et al., 1983). However, institutional theory is unable to explain the continuing reappearance of alternative schools that attempt to make a virtue of their active departure from institutional beliefs and commonly held definitions of what constitutes effective education.

Organizations will be more prone to challenge or contest the rationalized norms or collective rules of the institutional environment when the challenge can be reinforced by demonstrations of organizational probity or rationality. Just as rights activists will challenge extant laws and societal norms as a means of expressing their own convictions and integrity, organizations in general will be more likely to challenge institutional rules and values when they attach considerably less significance to widely shared external beliefs than to their own insular and elevated vision of what is, or

should be, appropriate, rational, or acceptable. Several Canadian manufacturers, for example, have attempted to challenge Ministry of Environment directives to conform to specific water pollution standards because they feel these directives are not "rational" and that their own behavior on pollution is above reproach.

Attack is distinguishable from challenge as a tactic of defiance by the intensity and aggressiveness of the organization's active departure from institutional pressures and expectations. Attacking organizations strive to assault, belittle, or vehemently denounce institutionalized values and the external constituents that express them. For example, an organization's strategic response to increasing public criticism of its operations may be an attack on the media's representation of public opinion toward the organization. An attacking strategic posture is most likely to occur when institutional values and expectations are organization-specific rather than general or defocalized, when these values and expectations are particularly negative and discrediting, or when the organization believes that its rights, privileges, or autonomy are in serious jeopardy.

A defiant strategy, in contrast to acquiescence, compromise, and buffering, represents unequivocal rejection of institutional norms and expectations, and it is more likely to occur when the perceived cost of active departure is low, when internal interests diverge dramatically from external values, when organizations believe they can demonstrate the rationality or righteousness of their own alternative convictions and conduct, or when organizations believe they have little to lose by displaying their antagonism toward the constituents that judge or oppose them.

#### Manipulation

The strategies of acquiescence, compromise, avoidance, and defiance represent increasingly active levels of resistance to given institutional demands and expectations. Manipulation is the most active response to these pressures because it is intended to actively change or exert power over the content of the expectations themselves or the sources that seek to express or enforce them. Manipulation can be defined as the purposeful and opportunistic attempt to co-opt, influence, or control institutional pressures and evaluations.

In response to institutional pressures, an organization may choose to co-opt the source of the pressure (Burt, 1983; Pennings, 1980; Pfeffer & Salancik, 1978). An organization may, for example, attempt to persuade an institutional constituent to join the organization or its board of directors. Pfeffer's (1974) research on electrical utility boards of directors showed how political support and legitimacy were obtained by co-opting important economic sectors in which the utility was under regulation. Selznick's (1949) study of the Tennessee Valley Authority also described in detail how outside interests were co-opted by the organization and persuaded to support its projects. The intended effect of co-optation tactics is to neutralize institutional opposition and enhance legitimacy. The opportunistic use of institutional links is

also revealed in coalition-building processes and the strategic use of institutional ties to demonstrate the organization's worthiness and acceptability to other external constituents from whom it hopes to obtain resources and approval (Benson, 1975; DiMaggio, 1983; Oliver, 1990; Wiewel & Hunter, 1985). A social service agency, for example, may cultivate or advertise its ties to an influential charitable foundation in order to demonstrate to other potential public and corporate donors that it is deserving of resources and support.

Influence tactics may be more generally directed toward institutionalized values and beliefs or definitions and criteria of acceptable practices or performance. The manipulation of belief systems is reflected, for example, in the efforts of a trade association to influence public perceptions of its industry and to lobby government regulators for changes in the institutional rules to which its members are advised or required to conform. In a study of arts organizations, DiMaggio (1983) noted how various nonprofit art organizations forged lobbying coalitions to influence the amount of funding and support obtainable from public sources. Organizations also may strategically influence the standards by which they are evaluated, as Scott (1983c) observed in his examination of nursing home owners' abilities to influence the political processes that determine nursing home standards. Because performance in institutionalized environments is itself institutionally defined and prescribed (Hinings & Greenwood, 1988), the actual definitions and criteria of acceptable performance are often open to strategic reinterpretation and manipulation.

Controlling tactics, by comparison, are specific efforts to establish power and dominance over the external constituents that are applying pressure on the organization. Several empirical studies from an institutional perspective have noted that struggles for power and control often underlie institutional processes (Covaleski & Dirsmith, 1988; Rowan, 1982; Tolbert, 1985, 1988; Tolbert & Zucker, 1983). Control is a more actively aggressive response to institutional pressures than co-optation and influence because the organization's objective is to dominate rather than to influence, shape, or neutralize institutional sources or processes.

Organizations are more likely to use controlling tactics when institutional expectations are incipient, localized, or weakly promoted. By way of an example, an organization may be more inclined to attempt domination of a small advocacy group that has recently opposed its products or practices than a large institutionally powerful organization that has vocalized its criticisms of the organization widely and over a protracted period of time. Organizations also may attempt to exert control over the allocation or expression of social approval by external constituents. For example, an organization may attempt to control the budgetary processes used to assess the value of organizations' social and economic contributions (Covaleski & Dirsmith, 1988; Pfeffer & Moore, 1980; Pfeffer & Salancik, 1974), or strive to alter the way in which organizational achievements and transgressions are

announced to the public. Co-opting, influencing, and controlling tactics constitute more active strategic responses to institutional pressures than alternative strategies, in that pressures and expectations are not taken as a given constraint to be obeyed or defied. Instead, organizations actively alter, re-create, or control the pressures themselves or the constituents that impose them. Manipulation involves the active intent to use institutional processes and relations opportunistically, to co-opt and neutralize institutional constituents, to shape and redefine institutionalized norms and external criteria of evaluation, and to control or dominate the source, allocation, or expression of social approval and legitimation.

#### PREDICTORS OF STRATEGIC RESPONSES

The foregoing strategies and tactics, in ascending order of active organizational resistance, identify the repertoire of behaviors that organizations may exhibit in response to institutional pressures and expectations. The theoretical rationale underlying conformity or resistance to institutional rules and expectations surrounds both the willingness and ability of organizations to conform to the institutional environment. The scope conditions under which organizations are willing to conform are bounded by organizational skepticism, political self-interest, and organizational control. Organizational questions about the legitimacy or validity of the institutional status quo, political self-interests among organizational actors that are at crosspurposes with institutional objectives, and organizational efforts to retain control over processes and outputs limit the willingness of organizations to conform to institutional requirements. The scope conditions under which organizations are able to conform are bounded by organizational capacity, conflict, and awareness. Inadequate organizational resources or capacity to meet the requirements for conformity, conflicting institutional pressures that make unilateral conformity unachievable, and lack of recognition or awareness of institutional expectations limit the ability of organizations to conform to institutional requirements.

These boundaries on the willingness and ability of organizations to conform drive the predictive dimensions hypothesized next, which determine the likelihood of resistance. Organizational responses to institutional pressures toward conformity will depend on why these pressures are being exerted, who is exerting them, what these pressures are, how or by what means they are exerted, and where they occur. The five institutional antecedents outlined in Table 3—cause, constituents, content, control, and context—correspond respectively to these five basic questions. Variation in the ten dimensions of these five categories are hypothesized to determine choice of strategy. For example, the first row of Table 4 suggests that acquiescence is more likely to occur when the degree of legitimacy attainable from conformity is high. The strategies of compromise, avoidance, defiance, and manipulation are more likely to occur when anticipated legitimacy is low.

TABLE 3					
<b>Antecedents</b>	of	Strategic	Responses		

Institutional Factor	Research Question	Predictive Dimensions
Cause	Why is the organization being pressured to conform to institutional rules or expectations?	Legitimacy or social fitness Efficiency or economic fitness
Constituents	Who is exerting institutional pressures on the organization?	Multiplicity of constituent demands Dependence on institutional constituents
Content	To what norms or requirements is the organization being pressured to conform?	Consistency with organizational goals Discretionary constraints imposed on the organization
Control	How or by what means are the institutional pressures being exerted?	Legal coercion or enforcement Voluntary diffusion of norms
Context	What is the environmental context within which institutional pressures are being exerted?	Environmental uncertainty Environmental interconnectedness

TABLE 4
Institutional Antecedents and Predicted Strategic Responses

Predictive Factor	Strategic Responses					
	Acquiesce	Compromise	Āvoid	Defy	Manipulate	
Cause						
Legitimacy	High	Low	Low	Low	Low	
Efficiency	High	Low	Low	Low	Low	
Constituents						
Multiplicity	Low	High	High	High	High	
Dependence	High	High	Moderate	Low	Low	
Content						
Consistency	High	Moderate	Moderate	Low	Low	
Constraint	Low	Moderate	High	High	High	
Control					•	
Coercion	High	Moderate	Moderate	Low	Low	
Diffusion	High	High	Moderate	Low	Low	
Context						
Uncertainty	High	High	High	Low	Low	
Interconnectedness	High	High	Moderate	Low	Low	

#### Cause

Hypothesis 1: The lower the degree of social legitimacy perceived to be attainable from conformity to institutional pressures, the greater the likelihood of organizational resistance to institutional pressures.

Hypothesis 2: The lower the degree of economic gain per-

ceived to be attainable from conformity to institutional pressures, the greater the likelihood of organizational resistance to institutional pressures.

The cause of institutional pressures refers to the rationale, set of expectations, or intended objectives that underlie external pressures for conformity. Zucker (1987a: 451) noted that the factors leading external actors, including the state, to exert pressure are underspecified in institutional theory. In general, the reasons for institutional pressures fall into two categories: social and economic fitness. Some pressures to make organizations more socially fit or acceptable include laws that require organizations to reduce pollution emissions, to deliver safe products and services, and to promote the health or safety of employees. Economic accountability and rationalization are also important objectives of many institutional pressures. Corporate donors and government sponsors put pressure on social service agencies to be more "business-like" and economically accountable for their use of donated funds. A nonprofit federation (e.g., the United Way) expects member agencies to be internally efficient and to follow detailed budgeting procedures (Litwak & Hylton, 1962; Pfeffer & Leong, 1977; Provan, 1983).

When an organization anticipates that conformity will enhance social or economic fitness, acquiescence will be the most probable response to institutional pressures. Organizational skepticism about the social legitimacy or strategic utility of conformity and the perception that institutional objectives are at cross purposes with organizational interests tend to result when the expected benefits of conformity differ significantly between those imposing the institutional pressure and those upon whom it is imposed.

So, for example, a member of a social service federation may question the benefit of rationalizing its services, notwithstanding the federation management's claims that rationalization will be beneficial. Corporations may question the legitimating effects of being an equal opportunity employer, notwithstanding the government's assurances that such status will be beneficial to the corporation's social and economic fitness. A hospital may resist pressures to improve its efficiency if it has doubts about the impact of this process on the quality of its services. Depending in particular on the type of organization (e.g., profit versus nonprofit), when anticipated legitimacy or economic gain is low, organizations will attempt to compromise on the requirements for conformity, avoid the conditions that make conformity necessary, defy the institutional requirements to which they are advised to conform, or manipulate the criteria or conditions of conformity.

Understandably, institutional research has tended to examine organization-environment relations that reflect similarity of expectations. Schools have been characterized as seeking to satisfy state and public expectations of appropriate structure and as "shar[ing] the same educational culture" (Meyer et al., 1983: 52). Resource dependence research, by comparison, has tended to explore situations revealing differences in expectations between organizations and constituents that impose pressures and expectations. In his study of hospital boards of directors, Pfeffer (1973) assumed an intent by

the hospital to co-opt elements hostile to its purposes. Studies of power and control regarding the United Way (Provan, 1982) and United Funds (Pfeffer & Leong, 1977) examined the differing objectives of affiliated agencies and federation management. The intersubjective and consensual nature of institutional rules and norms that institutional theory tends to emphasize (Scott, 1987a; Zucker, 1987a) is bounded by the potential for dissensus between organizational and institutional expectations, which gives rise to the mobilization and defense of organizational interests. Accordingly, the choice between acquiescence and more resistant strategies will depend on the degree to which the organization agrees with and values the intentions or objectives that institutional constituents are attempting to achieve in pressuring the organization to be more socially or economically accountable.

#### Constituents

Hypothesis 3: The greater the degree of constituent multiplicity, the greater the likelihood of organizational resistance to institutional pressures.

Hypothesis 4: The lower the degree of external dependence on pressuring constituents, the greater the likelihood of organizational resistance to institutional pressures.

Institutional constituents, including the state, professions, interest groups, and the general public, impose a variety of laws, regulations, and expectations on the organization. The collective normative order of the environment (Pfeffer & Salancik, 1978; Zucker, 1987a) is not necessarily unitary or coherent: organizations often confront multiple conflicting pressures (Pfeffer & Salancik, 1978; Scott, 1987a) that bound the ability of organizations to conform. Friedland and Alford (1987: 32) argued that different institutional spheres exert conflicting definitions and demands on organizations (e.g., regulation of housing and health by the market versus the state). Scott (1983a: 105) observed that state controls are so complex, specialized, and fragmented that the end result is a "jungle of conflicting requirements at the local level." Pfeffer and Salancik (1978: 27) argued that organizations confront incompatible and competing demands that make unilateral conformity to the environment difficult because the satisfaction of one constituent often requires the organization to ignore or defy the demands of another. Empirical support for the problems associated with managing conflicting interest groups is available for private sector firms (Friedlander & Pickle, 1968), public agencies (Rogers & Molnar, 1976; Whetten, 1978), and educational organizations (Gross, Mason, & McEachern, 1958; Rowan, 1982).

Because passive acquiescence to institutional demands is difficult to achieve when acquiescence to one constituent precludes the ability to conform to alternative constituents with conflicting expectations, acquiescence is most likely to occur when *multiplicity*, defined as the degree of multiple, conflicting, constituent expectations exerted on an organization, is low (e.g., a local agency accountable to one administrative body). When multiplicity

is high, compromise, avoidance, defiance, and manipulation are all likely responses to institutional pressures. In terms of compromise strategies, Whetten (1978) demonstrated how manpower agencies had to balance community pressures for high agency visibility, staff pressures for a high quality of service, and administrators' demands for a high volume of service output. Rowan's (1982) study of public schools showed how conformity to the institutional environment was impeded by imbalance or lack of consensus and harmony among institutional actors in the environment.

Organizations also are likely to attempt avoidance strategies in the face of multiple conflicting pressures from constituents. An oil company may attempt to conceal the extensiveness of an oil spill to avoid coping with the kind of costly cleanup that displeases its shareholders but is demanded by the public. Alternatively, organizations may choose to defy (i.e., dismiss or challenge) the demands of one constituent in order to meet the demands of another. State organizations often challenge public employee demands for higher wages on the basis that citizen's expectations of lower taxes cannot be satisfied simultaneously (Pfeffer & Salancik, 1978). Manipulating (e.g., co-opting) one set of pressures also reduces the likelihood that they will be incompatible with alternative demands. A company under pressure from shareholders to increase profitability may attempt to import or co-opt an influential public interest group representative who is pressuring the organization to increase expenditures on social problems.

The mechanisms that drive compromise, avoidance, defiance, and manipulation under conditions of high multiplicity are conflict resolution, uncertainty reduction, and the growth in salience or organizational awareness of institutional pressures that the contrast between competing constituent demands tends to produce. Institutional predictions of preconscious and consensual acquiescence to the institutional environment are bounded by multiplicity for two reasons. Conflicting pressures preclude organizational conformity to the institutional environment in its entirety and multiplicity tends to fragment generalized belief systems and the intersubjective and shared definition of institutional reality to which institutional theorists attribute such causal force in bringing about conformity. In addition, organizations are not only made more aware of an institutional expectation when it is incompatible with other institutional demands. From a resource dependence perspective, an organization also will be driven by its own interests to reduce the uncertainty, conflict, and instability that multiplicity generates.

The likelihood of resistance to institutional pressures is also predictable from an organization's dependence on the constituents who exert pressure. DiMaggio and Powell (1983: 154) hypothesized that conformity or isomorphism with the institutional environment will be a function of external dependence. These authors argued for "the greater ability of organizations to resist the demands of organizations on whom they are not dependent." Similarly, resource dependence theorists have argued that an organization will be less likely to resist external pressures when it is dependent on the

sources of these pressures (Pfeffer & Salancik, 1978). In a study of plant managers in Israel, Pfeffer (1972a) found that dependence on the government predicted the likelihood that these managers would comply with government expectations. Salancik's (1979) study of affirmative action programs demonstrated that compliance with federal agencies on the implementation of these programs was explained by the degree of an organization's dependence on the government. Therefore, acquiescence is the most probable strategic response to institutional pressures when organizational dependence on the source of these pressures is high.

Partial conformity (i.e., compromise) is also a common response when dependence is high because organizations typically have interests they wish to protect or promote and dependence is rarely unidirectional. Even in highly regulated institutional environments, organizations may bargain with regulatory commissions on the terms of compliance, they may supply their own personnel to regulatory agencies as advisors, and they may take advantage of the fact that the cooperation of organizations in an industry is necessary for the commission to do its job (Pfeffer & Salancik, 1978: 211).

As dependence on the sources of institutional pressure decreases. avoidance becomes a more viable strategic alternative. When an organization's performance and survival are only moderately dependent upon the good opinion of the public (e.g., arms manufacturers), avoidance tactics, such as ceremonial conformity, symbolic gestures of compliance, and restricted access to information on the company's practices (i.e., concealment), may be the extent of an organization's responsiveness to institutional rules and expectations. When dependence is low, both defiance and manipulation represent minimal risks to organizational interests because the organization is no longer held captive by a single or limited number of sources of social support, resources, or legitimacy. The increasing likelihood of more resistant responses as the degree of dependence on institutional constituents declines is a function of the constituent's inability to control the allocation or availability of some critical organizational resource and the organization's willingness or ability to find alternative resources or resource suppliers. Therefore, the degree of dependence on institutional constituents is an important boundary condition on the probability of organizational conformity to the expectations of institutional constituents.

#### Content

Hypothesis 5: The lower the degree of consistency of institutional norms or requirements with organizational goals, the greater the likelihood of organizational resistance to institutional pressures.

Hypothesis 6: The greater the degree of discretionary constraints imposed on the organization by institutional pressures, the greater the likelihood of organizational resistance to institutional pressures.

Two dimensions of the pressures themselves are hypothesized to be

particularly important in predicting the employment of alternative strategies: the consistency of the pressures with organizational goals, and the loss of decision-making discretion that the pressures impose on the organization. Organizations will be more willing to acquiesce to external pressures when these pressures or expectations are compatible with internal goals. Compromise and avoidance strategies are predicted to be most common when there is only moderate consistency between organizational goals and institutional pressures; defiance and manipulation strategies are predicted to occur most frequently when consistency is low.

Powell (1988: 129), for example, observed how the demands of external constituents tended to conflict with the internal logic of production for both scholarly publishers and public television stations, with the result that these two types of organizations tended to respond by buffering themselves from outside influence (i.e., avoidance) and attempting to placate important institutional constituents (i.e., compromise). When consistency is extremely low (e.g., where a manufacturer anticipates that full compliance with proposed government changes to production safety standards may actually drive it out of business), the organization may unilaterally dismiss, challenge, or attack these requirements. Regarding this point, Covaleski and Dirsmith (1988) described the process of how a university challenged and rejected a traditional institutionalized budgetary framework for allocating state funding when this framework became inconsistent with the university's goals and interests.

Among for-profit firms, anticipated losses in efficiency are especially common sources of resistance to state intervention. As market definitions of effective performance become partially supplanted by criteria of social acceptability and responsiveness to publicly defined rules and procedures, conformity with government regulations is often seen by the organization to be increasingly incompatible with the technical and economic standards against which firm performance is primarily assessed. Under these conditions, organizations may strive to manipulate the rules that affect them (e.g., through lobbying). In the same way, nonprofit organizations may be more resistant to pressures for economic rationality because compliance with these pressures may be perceived as inconsistent with the goal of high quality social service delivery (Whetten, 1978: 262). Inconsistency reflects organizational interests at cross purposes with institutional objectives and provokes organizational doubts about the validity or legitimacy of institutional expectations.

Organizations also may lack the capacity to conform when consistency is low (e.g., inadequate working capital to bring current production processes into conformity with new state laws on pollution). In this way, both the willingness and ability of organizations to accept and conform to institutional rules or expectations may be circumscribed by a lack of consistency. Therefore, the likelihood that organizations will conform to institutional pressures is not exclusively dependent on the legitimacy or economic rationality (or lack thereof) anticipated by conformity (social or economic

fitness). Rather, it depends, in interaction, on the degree of discrepancy between organizational goals and institutional requirements (consistency), the likelihood that institutional constituents create conflict for the organization in meeting incompatible goals simultaneously (multiplicity), and the degree of organizational dependence on the pressuring institutional constituents for its legitimacy or economic viability (dependency).

The loss of organizational freedom implied by conformity to institutional pressures is also hypothesized to predict the likelihood of organizational resistance or compliance to conforming pressures. Pfeffer and Salancik (1978: 94) pointed out that "compliance is a loss of discretion, a constraint, and an admission of limited autonomy." Several theorists and researchers have emphasized the importance of organizational discretion and decision-making autonomy in organization-environment relations (Cook, 1977; Hambrick & Finkelstein, 1987; Pfeffer & Salancik, 1978; Provan, 1982, 1983; Schermerhorn, 1981; Thompson, 1967; Whetten & Leung, 1979). It is suggested here that resistance will vary with the loss of autonomy associated with conforming pressures. Organizational motives to retain control over processes and outputs will impose limits on the willingness of organizations to conform.

Organizations will be expected to acquiesce more readily to pressures that do not constrain substantive organizational decisions, such as resource allocation, product or service selection, resource acquisition, or organizational administration (e.g., hiring, compensation, promotion). Companies may be less resistant to pressures for the introduction of gender-neutral vocabulary in their annual reports than to pressures for changes in the products they market or in the critical inputs they use. As autonomy begins to be threatened, organizations may move to compromise or negotiate on the extent of their permitted discretion, just as the American Advertising Federation, under increasing threat of a government-imposed code of ethics in advertising, negotiated successfully with the Federal Trade Commission in the early 1970s on the rights of the federation to set its own advertising standards.

The potential for loss of discretion also explains, in part, why organizations engage in ceremonial conformity and related avoidance strategies in response to institutional pressures. For example, conformity to certification and accreditation requirements in education and the decoupling of educational work from formal structure permit educators to retain almost total control or discretion over actual classroom instruction (Meyer et al., 1983). Furthermore, as anticipated constraints on an organization's autonomy increase to high levels, those institutional constraints may be challenged or attacked. In parts of Canada, for example, the impending removal by the government of medical practitioners' rights to charge a surplus on special medical services in the mid-1980s precipitated a vigorous challenge to the proposal from the medical profession and a direct attack on the politicians who proposed (and eventually passed) this legislation.

Threats to autonomy are also likely to invoke a variety of manipulative

strategies, such as active efforts to co-opt the threatening constituent, as Selznick (1949) described in his detailed account of how the Tennessee Valley Authority co-opted opposing constituents. Organizations also may manipulate or attempt to control institutional standards or demands that are expected to inhibit discretion. For this reason, many professions and associations attempt to become politically involved in setting the standards or shaping the regulatory policies that threaten to curtail their latitude for action. The active political involvement of the Association of Home Appliance Manufacturers in establishing their industry's safety standards was driven specifically by the attempt to forestall the constraints of government regulation (Hunt, 1975). Self-regulation in the accounting industry "was the direct result of the near certainty that if the industry did not take a lead in establishing corporate financial standards, the SEC would" (Gupta & Lad, 1983: 421).

The cause, constituents, and control of institutional pressures are likely to interact with discretionary constraint in empirical settings to determine organizational resistance. Organizations will be expected to trade off autonomy or discretion in return for greater legitimacy or economic viability. One such example is hospitals, which comply with restraining requirements to hire certified personnel because to do otherwise would seriously compromise the organization's legitimacy and viability (Scott, 1987b). Similarly, Provan's (1982) study of autonomy loss in a United Way network suggested that agencies viewed the constraints of membership in the federation as positive when these constraints were perceived to contribute to legitimacy and agency success. In terms of the constituents exerting pressure, an organization will be less likely to resist institutional pressures that constrain organizations' action when the organization is heavily dependent on the source of these pressures (Galaskiewicz, 1979; Knoke, 1983; Provan, Beyer, & Kruytbosch, 1980).

A large company may impose limits on a particular supplier's ability to make its products according to its own specifications. If the supplier is highly dependent on this company for the disposal of its output, it is less likely to resist the imposition of these constraints. Finally, in terms of control, organizations' resistance to the loss of discretion will be more limited when the conditions of constraint have already been predetermined by government or legal mandate. For example, a public utility, by virtue of preexisting constraints on pricing, promotion, location, and technology, possesses less latitude for responding to loss of autonomy than a mid-sized microcomputer firm (Hambrick & Finkelstein, 1987: 372). As the following section suggests, the more institutional pressures are entrenched in a legal or regulatory apparatus, the less likely it is that organizations will resist these pressures.

#### Control

Hypothesis 7: The lower the degree of legal coercion behind institutional norms and requirements, the greater

the likelihood of organizational resistance to institutional pressures.

Hypothesis 8: The lower the degree of voluntary diffusion of institutional norms, values, or practices, the greater the likelihood of organizational resistance to institutional pressures.

Institutional control describes the means by which pressures are imposed on organizations. Two distinct processes by which pressures are exerted include legal coercion and voluntary diffusion. Legal or government mandates are imposed by means of authority rather than through pressures for voluntary compliance (DiMaggio & Powell, 1983; Pfeffer & Salancik, 1978; Scott. 1987a).

When the force of law or government mandate buttresses cultural expectations, organizations are made more aware of public interests and will be less likely to respond defiantly because the consequences of noncompliance are more tangible and often more severe. Acquiescence best serves the organization's interests when legal coercion is high, that is, when the consequences of nonconformity are highly punitive and strictly enforced. When the degree of institutional enforcement, vigilance, and sanctions for noncompliance are more moderate, organizations often seek compromises on the scope or timing of their compliance.

A social service agency, for example, may request exemptions from or delays to the implementation of institutional requirements. Organizations also attempt to avoid institutional rules and requirements by reducing the degree to which they are scrutinized by regulatory agencies (i.e., buffering) or by establishing ritualistic procedures to promote the appearance of compliance to specified rules and requirements (i.e., concealment). Active defiance and manipulation are most likely to occur when the degree of legal coercion is low. When sanctions for noncompliance with laws or regulations are minimal (e.g., nominal fines for legal transgressions) or when mechanisms for enforcing compliance are weak or infrequently applied (e.g., cursory on-site inspections) the anticipated consequences of nonconforming behavior may not constitute a sufficient deterrent to organizational resistance.

Institutional pressures and expectations may occur not only by legal coercion but also by means of voluntary diffusion. The extent to which an institutional expectation or practice has already diffused or spread voluntarily through an organizational field will tend to predict the likelihood of conformity to institutional expectations. Knoke (1982) found that the best basis for predicting the adoption of municipal reforms was the percentage of other municipalities that had already adopted the reform. In the same way, Tolbert and Zucker (1983) demonstrated that later adoption of civil service policies and programs was a function of how widespread or broadly diffused these policies and programs had become in the institutional envi-

ronment. Fligstein (1985) showed that firms adopted the multidivisional form when their competitors shifted to these structures, a finding which he argued to be consistent with DiMaggio and Powell's (1983) mimetic view of organizational conformity. Therefore, the more broadly diffused an institutional expectation or practice, the higher the likelihood that organizations will conform with these expectations. By the same token, the less widespread a set of values, practices, or expectations, the higher the likelihood that organizations will resist them.

When institutional rules or norms are broadly diffused and supported, organizations will be predicted to acquiesce to these pressures because their social validity is largely unquestioned. Rules and norms that are very broadly diffused tend to preclude organizational resistance because they "take on a rulelike status in social thought and action" (Covaleski & Dirsmith, 1988: 562). In the face of very widely shared and taken-for-granted understandings of what constitutes legitimate or rational behavior, organizations will conform largely because it does not occur to them to do otherwise. Diffused rules and norms also "infect" other organizations through imitation and a "contagion of legitimacy" (Zucker, 1987a: 446). Galaskiewicz and Wasserman's (1989: 476) study of mimetic isomorphism, for example, has illustrated how organizational decision makers, through imitation, "will try what others have done and have found to work."

When the degree of voluntary diffusion of norms and practices in an institutional environment is low, organizations will be less likely to conform to these norms and practices. Therefore, the studies by Fligstein (1985), Tolbert and Zucker (1983), and Knoke (1982), noted previously, demonstrated how organizations were less likely to conform to particular reforms when these reforms were not widely diffused. Under conditions of moderate diffusion, organizations often compromise on the degree of conformity (e.g., adopting general expectations to fit local needs and interests), or attempt avoidance tactics, such as adapting changes superficially through ceremonial conformity or lip service to the pressure or expectation. When institutional pressures to hire more visible minorities were less broadly supported than they are currently, many more companies resorted to gestures of "tokenism" in selection and promotion decisions. The less widely diffused a set of norms, values, and practices, the greater the likelihood that they will be targets for defiance or manipulation.

For example, the military's ability to oppose the use of women in the armed services became increasingly curtailed as pressures for equal employment opportunities became more broadly supported by the public and the state. Similarly, the armed services' ability to co-opt or influence the sources of these pressures became more limited as support for the practice of equal opportunity became more widespread. Therefore, limits on the diffusion of norms and values also define the scope conditions of institutional conformity. Because organizations are less likely to be aware of incipient or narrowly diffused values and practices, they may be unable to conform.

Organizations will also tend to be more skeptical and therefore unwilling to conform when values and practices are not broadly diffused or widely validated.

#### Context

Hypothesis 9: The lower the level of uncertainty in the organization's environment, the greater the likelihood of organizational resistance to institutional pressures.

Hypothesis 10: The lower the degree of interconnectedness in the institutional environment, the greater the likelihood of organizational resistance to institutional pressures

The environmental context within which institutional pressures are exerted on organizations is also likely to be a determinant of organizations' responses to institutional influence. Environmental uncertainty and interconnectedness are predicted to be significant dimensions of context that affect organizations' conformity or resistance to institutional demands and expectations. Pfeffer and Salancik (1978: 67) defined environmental uncertainty as "the degree to which future states of the world cannot be anticipated and accurately predicted." Interconnectedness refers to the density of interorganizational relations among occupants of an organizational field (Aldrich & Whetten, 1981; DiMaggio & Powell, 1983; Pfeffer & Salancik, 1978).

Both institutional and resource dependence theorists suggest that uncertainty will interact with multiplicity, insofar as multiple, conflicting constituent pressures tend to exacerbate uncertainty (Pfeffer & Salancik, 1978: 68; Scott, 1987b: 141). Both also argue that organizational decision makers have a strong preference for certainty, stability, and predictability in organizational life (DiMaggio, 1988; DiMaggio & Powell, 1983; Pfeffer & Salancik, 1978: Zucker, 1977). When the environmental context of institutional influence is highly uncertain and unpredictable, an organization will exert areater effort to reestablish the illusion or reality of control and stability over future organizational outcomes. It is predicted that acquiescence, compromise, and avoidance strategies will be most likely to occur when environmental uncertainty is high. For example, during periods of instability in the acquisition of funding, agencies in a federation may be more willing to comply with the demands imposed upon them by the federation's management. Meyer and Rowan (1977: 352) noted how institutional conformity can protect organizations from environmental turbulence, as Lockheed and Penn Central were able to achieve by becoming components of the state.

In the context of uncertainty, organizations are also more likely to imitate other organizations. DiMaggio and Powell (1983) hypothesized that environmental uncertainty causes organizations to mimic one another; Galaskiewicz and Wasserman (1989) offered empirical evidence to support this

contention. In terms of compromise strategies, Pfeffer and Salancik (1978: 145) observed that negotiation is a direct approach for reducing environmental uncertainty. High environmental uncertainty also has been proposed as a critical determinant of avoidance responses (Thompson, 1967). Some organizations attempt to buffer themselves from the vulnerabilities of operating in an unpredictable environment by stockpiling inventories or attempting to forecast trends (Pfeffer & Salancik, 1978; Scott, 1987b; Thompson, 1967). In terms of avoidance strategies, Meyer and his colleagues (1983: 58) also suggested that uncertainties surrounding schools are "stabilized by rendering them invisible [i.e., concealment]—they can be delegated to the trusted care of particular teachers who operate backstage, behind closed doors." As the uncertainty of the environment diminishes, the need for security, stability, and predictability from the persistence of institutionalized norms decreases and organizations grow more confident in their predictions about the acquisition of future resources and legitimacy. Under these conditions, the manipulation and defiance of institutional values and the constituents that express them are seen as less risky strategic alternatives for achieving organizational goals.

Organizations are more likely to accede to the values or requirements of the institutional environment when this environment is highly interconnected. Both institutional and resource dependence theorists suggest that interconnectedness facilitates the voluntary diffusion of norms, values, and shared information (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Pfeffer & Salancik, 1978). Because highly interconnected environments provide relational channels through which institutional norms can be diffused, this tends to create more implicit coordination and collectivization in a given environment, more consensus on diffused norms, and greater ubiquity of institutional effects. The prediction that high degrees of interconnectedness facilitate organizational acquiescence to institutional pressures is consistent with Meyer and Rowan's (1977) argument that relational networks serve to elaborate collective myths and values and that this elaboration leads to conformity with these institutional elements. It is also consistent with DiMagaio and Powell's (1983) hypothesis that high degrees of structuration and interconnectedness in an institutional environment promote institutional isomorphism and conformity.

Environments that are highly fragmented or purely competitive impede the spread of institutional consensus and conformity. Therefore, organizational defiance and manipulation are more likely to occur, the lower the degree of organizational interconnectedness in the institutional environment. Compromise and avoidance responses (e.g., bargaining, buffering) are predicted to occur in highly interconnected environments because interdependence among organizations requires interorganizational coordination and negotiation on the extent and conditions of exchange, and the establishment of interorganizational linkages involves a loss of control and discretion that organizations attempt to minimize, particularly through ef-

forts to decouple internal organizational processes from the influence of external relationships (Oliver, 1990).

#### **FUTURE RESEARCH**

Future research can begin to examine empirically the 10 predictive dimensions hypothesized above, for purposes of predicting the likelihood of conformity or resistance to institutionalization, or for purposes of predicting specific organizational strategies. Research strategies to investigate the choice process between conformity and resistance need to include perceptual measures of several of the proposed variables. One approach might be field interviews or questionnaires that ask CEOs and managers their reasons for conformity or resistance, whether they expect compliance to increase their organization's status or prestige (Hypothesis 1), how compliance or resistance might affect their efficiency or profitability (Hypothesis 2), how compatible an external requirement is with their organization's goals (Hypothesis 5), and whether they feel, for example, that regulation or public pressures are constraining their activities by slowing down the completion of tasks or limiting their use of particular inputs and processes (Hypothesis 6). The prediction of resistance from multiplicity (Hypothesis 3) might include measures such as the number of dissenting votes recorded in the minutes of board of director meetings, or the centralization or fragmentation of funding or authority in public sector domains (see, in particular, Meyer, 1983; Meyer et al., 1987; Scott & Meyer, 1983). Alternatively, multiplicity could be assessed by generating a list of constituents in an organization's set (see, e.g., Friedlander & Pickle, 1968), conducting surveys of these various constituent representatives on their criteria for assessing organizational effectiveness, and then examining these criteria for differences or inconsistencies.

Many existing studies include measures of dependence (Hypothesis 4): for example, the number of alternative sources for obtaining capital or resources, or the percentage of an agency's total budget funded by one constituent (Pfeffer & Leong, 1977; Provan, Beyer, & Kruytbosch, 1980; Salancik, 1979). Legal coercion as a predictor of conformity can be measured by the number of legal and regulatory rules that govern an organization at local, state, and federal levels and the scope of their sanctions for noncompliance (e.g., amount of fines, threats of criminal proceedings). Voluntary diffusion (Hypothesis 8) is measurable from the number of organizations in a field of study that have already adopted a particular program or policy (Knoke, 1982; Tolbert & Zucker, 1983) or from opinion surveys of organizations' awareness of, and agreement with, particular values or practices.

Given the controversy in the literature about the relative merits of subjective versus objective measures of environmental uncertainty (Scott 1987b: 134), research strategists who investigate the influence of uncertainty on conformity versus resistance (Hypothesis 9) may wish to include both. CEOs and managers could be asked about their degree of confidence in predicting the future of a number of key dimensions of their environment (e.g.,

resource or capital acquisition, future competition, government legislation). Depending on the organizations' study population, uncertainty could also be measured by profit fluctuations, market or interest rate volatility, unplanned variability in funding allocations, or industry concentration (Pfeffer, 1972; Pfeffer & Leblebici, 1973; Pfeffer & Salancik, 1978). Interconnectedness (Hypothesis 10) is measurable from the density of interorganizational relations among occupants of a population (Knoke & Kuklinski, 1982; Oliver, 1988).

This article has suggested that the nature of institutional pressures (cause, constituents, content, control, and context) will be an important determinant of alternative strategies. Future research might examine whether administrator, organizational, and quasi-institutional factors also make resistance more probable. Organizational leaders or managers with an internal locus of control (Spector, 1982) and a high need for autonomy (Birch & Veroff, 1966) may be more likely to employ resistant strategies. Organizations that are highly cohesive and that have strong internal cultures may be more prone to resist external expectations and beliefs. Common educational and ethnic backgrounds among status groups in an interorganizational field also may tend to promote conformity (Galaskiewicz & Shatin, 1981). Investigation of these factors might shed additional light on the forces for resistance versus conformity in institutional environments.

#### CONCLUSION

The major criticisms of institutional theory have been its assumptions of organizational passivity and its failure to address strategic behavior and the exercise of influence in its conceptions of institutionalization (Covaleski & Dirsmith, 1988; DiMaggio, 1988; Perrow, 1985; Powell, 1985). This article has attempted to illustrate that the institutional framework can readily accommodate a variety of strategic responses to the institutional environment when the degree of choice and activeness that organizations exhibit in response to institutional constraints and expectations is not assumed to be invariant across all institutional conditions. Given resource dependence theory's focus on the methods and benefits of noncompliance in response to external demands, this theory provides a particularly appropriate basis of comparison for revealing institutional theory's delimiting assumptions, identifying the full repertoire of alternative strategies available to organizations that confront institutional demands and expectations, and determining the factors that predict when organizations will resist or conform to institutional pressures.

In accordance with DiMaggio's (1988) recommendation that institutional and political models should be regarded as complementary tools for understanding institutional phenomena, this article has sought to demonstrate how institutional and resource dependence theories together identify a range of strategic and tactical responses to the institutional environment and the factors that predict the occurrence of these alternative strategies.

When organizations are not assumed to be invariably passive or active, conforming or resistant, then responses to the institutional environment become cast as behaviors to be predicted rather than theoretically predefined outcomes of institutional processes. Caricatures of organizations as passive recipients or political manipulators of institutional pressures, which the extremes of institutional and resource dependence theories tend to elicit, can be supplanted by a variety of responses that are predictable largely in terms of the nature of the institutional pressures themselves.

In an effort to identify the range of strategic responses to institutional pressures and the antecedents of these behaviors, this article has not addressed the consequences of resistant strategies, particularly for organizational efficiency or effectiveness. Several institutional theorists have argued that conformity makes organizations less efficient at the same time that it contributes to organizational effectiveness by increasing an organization's ability to mobilize cultural support and resources for the organization (DiMaggio & Powell, 1983: 153; Galaskiewicz & Wasserman, 1989: 455; Meyer & Rowan, 1977: 352; Zucker, 1987a: 445). This article does not suggest, by the same reasoning, that resistant strategies will promote efficiency and ineffectiveness. Rather, efficiency will depend on the objectives of the demands and expectations being exerted: The resistance of pressures for social fitness will tend to increase internal efficiency, and the resistance of pressures for economic fitness will tend to attenuate internal efficiency. Moreover, this article argues that organizations may engage in manipulative strategies to shape the social or political definition of organizational effectiveness. In this way, an organization's responses to the institutional environment will not only influence organizational performance, they may also influence the criteria, measures, or standards used by institutional constituents to evaluate performance.

Nor is it argued here that resistance is necessarily risky. Indeed, the foregoing hypotheses have suggested that an organization will be unlikely to resist institutional demands and expectations when it is highly dependent on the constituent exerting pressures, when there is a strong legal or regulatory apparatus to enforce compliance, or when an institutional expectation is already very broadly diffused or supported. Therefore, it is not the case that deviations from institutional prescriptions of rational or appropriate behavior will cause failure and that conformity to external rules and beliefs will ensure success. Instead, resistant strategies will be potentially effective alternatives when multiplicity, for example, is high and dependence, coercion, diffusion, uncertainty, and interconnectedness are low.

The consequences of organizational resistance will also be an organizational trade-off. Depending on the predictive factors identified in this article, resistance may render organizations somewhat less popular, socially supported, legitimate, or stable. At the same time, resistant organizations are likely to be more flexible, innovative, catalytic, and adaptive. Since institutionalization slows the adaptation process (Meyer & Rowan, 1977: 351), resistance to institutional pressures facilitates responsiveness to exter-

nal contingencies (Kurke, 1988) by permitting organizations to retain some autonomy or discretion for future use. The implication of this article is that conformity is neither inevitable nor invariably instrumental in securing longevity. If resistance to institutional norms and requirements can threaten long-run viability by provoking possible retaliation, loss of resources, or the removal of social support, then conformity to the institutional environment can also threaten long-run survival by imposing structural and procedural rigidities on the organization that inhibit its ability to adapt and respond to future unforeseen contingencies as they arise in the environment. Given this trade-off, it makes sense to investigate the range of responses available to organizations rather than to argue a priori that passive conformity or, alternatively, strategic noncompliance is the appropriate mode of responsiveness to the environment.

This article has proposed that organizations do not invariably conform to the rules, myths, or expectations of their institutional environment. Further investigation of organizational resistance in institutional environments may be important for substantiating or refining the basic premises of institutional theory. Because the central assumption of institutional theory is that institutional environments exert a potent conforming influence on organizations, the conditions under which these pressures fail in their predicted effects certainly merit further theoretical and empirical attention.

#### REFERENCES

- Aldrich, H., & Whetten, D. A. 1981. Organization-sets, action-sets, and networks: Making the most of simplicity. In P. C. Nystrom & W. H. Starbuck (Eds.), *Handbook of organizational design*, vol. 1: 385–408. New York: Oxford University Press.
- Benson, J. K. 1975. The interorganizational network as a political economy. **Administrative Science Quarterly**, 20: 229–249.
- Berger, P. L., & Luckmann, T. 1967. *The social construction of reality*. New York: Doubleday.
- Birch, D., & Veroff, J. 1966. Motivation: A study of action. Monterey, CA: Brooks/Cole.
- Burt, R. S. 1983. Corporate profits and co-optation: Networks of market constraints and directorate ties in the American economy. New York: Academic Press.
- Cook, K. S. 1977. Exchange and power in networks of interorganizational relations. *The Sociological Quarterly*, 18: 62–82.
- Covaleski, M. A., & Dirsmith, M. W. 1988. An institutional perspective on the rise, social transformation, and fall of a university budget category. *Administrative Science Quarterly*, 33: 562–587.
- DiMaggio, P. J. 1983. State expansion and organizational fields. In R. H. Hall & R. E. Quinn (Eds.), **Organizational theory and public policy:** 147–161. Beverly Hills, CA: Sage.
- DiMaggio, P. J. 1988. Interest and agency in institutional theory. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment:* 3–21. Cambridge, MA: Ballinger.
- DiMaggio, P. J., & Powell, W. W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48: 147–160.
- Dowling, J., & Pfeffer, J. 1975. Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, 18: 122–135.

- Fligstein, N. 1985. The spread of the multidivisional form among large firms, 1919–1979. **American Sociological Review,** 50: 377–391.
- Friedland, R., & Alford, R. R. 1987. Bringing society back in: Symbiosis, structures and institutional contradiction. Paper presented at Conference on Institutional Change, Center for Advanced Study in the Behavioral Sciences, Stanford, CA, May, 15–16.
- Friedlander, F., & Pickle, H. 1968. Components of effectiveness in small organizations. *Administrative Science Quarterly*, 13: 289–304.
- Galaskiewicz, J. 1979. Exchange networks and community politics. Beverly Hills, CA: Sage.
- Galaskiewicz, J., & Shatin, D. 1981. Leadership and networking among neighborhood human service organizations. *Administrative Science Quarterly*, 26: 434–448.
- Galaskiewicz, J., & Wasserman, S. 1989. Mimetic processes within an interorganizational field: An empirical test. *Administrative Science Quarterly*, 34: 454–479.
- Gross, N., Mason, W. S., & McEachern. 1958. Explorations in role analysis: Studies of the school superintendency role. New York: Wiley.
- Gupta, A. K., & Lad, L. J. 1983. Industry self-regulation: An economic, organizational, and political analysis. *Academy of Management Review*, 8: 416–425.
- Hambrick, D. C., & Finkelstein, S. 1987. Managerial discretion: A bridge between polar views of organizational outcomes. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 9: 369–406. Greenwich, CT: JAI Press.
- Hinings, B., & Greenwood, R. 1988. The normative prescription of organizations. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment:* 53–70. Cambridge, MA: Ballinger.
- Hirschman, A. O. 1970. *Exit.* voice, and loyalty. Cambridge, MA: Harvard University Press.
- Hunt, M. S. 1975. Trade associations and self-regulation: Home appliances. In R. E. Caves & M. J. Roberts (Eds.), *Regulating the product: Quality and variety:* 39–56. Cambridge, MA: Ballinger.
- Knoke, D. 1982. The spread of municipal reform: Temporal, spatial, and social dynamics. *American Journal of Sociology*, 87: 1314–1349.
- Knoke, D. 1983. Organization sponsorship and influence reputation of social influence associations. Social Forces, 61: 1065–1087.
- Knoke, D., & Kuklinski, J. H. 1982. Network analysis. Beverly Hills, CA: Sage.
- Kurke, L. B. 1988. Does adaptation preclude adaptability? Strategy and performance. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment:* 199–222. Cambridge, MA: Ballinger.
- Litwak, E., & Hylton, L. F. 1962. Interorganizational analysis: A hypothesis on coordinating agencies. *Administrative Science Quarterly*, 6: 395–420.
- Meyer, J. M. 1983. Centralization of funding and control in educational governance. In J. W. Meyer & W. R. Scott (Eds.), Organizational environments: Ritual and rationality: 179–197. Beverly Hills, CA: Sage.
- Meyer, J. W., & Rowan, B. 1977. Institutional organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 80: 340–363.
- Meyer, J. W., & Rowan, B. 1983. The structure of educational organizations. In J. W. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality:* 71–97. Beverly Hills, CA: Sage.
- Meyer, J. W., & Scott, W. R. 1983. Centralization and the legitimacy problems of local government. In J. W. Meyer & W. R. Scott (Eds.), Organizational environments: Ritual and rationality: 199–215. Beverly Hills, CA: Sage.
- Meyer, J. W., Scott, W. R., & Deal, T. E. 1983. Institutional and technical sources of organiza-

- tional structure: Explaining the structure of educational organizations. In J. W. Meyer & W. R. Scott (Eds.), **Organizational environments: Ritual and rationality:** 45–67. Beverly Hills, CA: Sage.
- Meyer, J. W., Scott, W. R., & Strang, D. 1987. Centralization, fragmentation, and school district complexity. *Administrative Science Quarterly*, 32: 186–201.
- Oliver, C. 1988. The collective strategy framework: An application to competing predictions of isomorphism. *Administrative Science Quarterly*, 33: 543–561.
- Oliver, C. 1990. Determinants of interorganizational relationships: Integration and future directions. **Academy of Management Review**, 15: 241–265.
- Pennings, J. M. 1980. Interlocking directorates. San Francisco: Jossey-Bass.
- Perrow, C. 1985. Review essay: Overboard with myth and symbols. *American Journal of Sociology*, 91: 151–155.
- Pfeffer, J. 1972a. Interorganizational influence and managerial attitudes. **Academy of Management Journal**, 15: 317–330.
- Pfeffer, J. 1972b. Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 17: 218–228.
- Pfeffer, J. 1974. Co-optation and the composition of electric utility boards of directors. *Pacific Sociological Review*, 17: 333–363.
- Pfeffer, J. 1981. Power in organizations. Boston, MA: Pitman.
- Pfeffer, J. 1982. Organizations and organization theory. Boston, MA: Pitman.
- Pfeffer, J., & Leblebici, H. 1973. Executive recruitment and the development of interfirm organizations. *Administrative Science Quarterly*, 18: 449–461.
- Pfeffer, J., & Leong, A. 1977. Resource allocations in United Funds: An examination of power and dependence. **Social Forces**, 55: 775–790.
- Pfeffer, J., & Moore, W. L. 1980. Power in university budgeting: A replication and extension. **Administrative Science Quarterly,** 25: 637–653.
- Pfeffer, J., & Salancik, G. R. 1974. Organizational decision making as a political process: The case of a university budget. **Administrative Science Quarterly**, 19: 135–151.
- Pfeffer, J., & Salancik, G. R. 1978. *The external control of organizations*. New York: Harper & Row.
- Powell, W. W. 1985. The institutionalization of rational organizations. *Contemporary Sociology*, 14: 564–566.
- Powell, W. W. 1988. Institutional effects on organizational structure and performance. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment:* 115–136. Cambridge, MA: Ballinger.
- Powell, W. W., & Friedkin, R. 1986. Politics and programs: Organizational factors in public television decision making. In P. DiMaggio (Ed.), *Nonprofit enterprise in the arts:* 245–269. New York: Oxford University Press.
- Provan, K. G. 1982. Interorganizational linkages and influence over decision-making. **Academy of Management Journal**, 25: 443–451.
- Provan, K. G. 1983. The federation as an interorganizational linkage network. *Academy of Management Review*, 8: 79–89.
- Provan, K. G., Beyer, J. M., & Kruytbosch, C. 1980. Environmental linkages and power in resource-dependence relations between organizations. *Administrative Science Quarterly*, 25: 200–225.

- Rogers, D. L., & Molnar, J. 1976. Organizational antecedents of role conflict and role ambiguity in top-level administrators. *Administrative Science Quarterly*, 21: 598–610.
- Rowan, B. 1982. Organizational structure and the institutional environment: The case of public schools. *Administrative Science Quarterly*, 27: 259–279.
- Salancik, G. R. 1979. Interorganizational dependence and responsiveness to affirmative action: The case of women and defense contractors. **Academy of Management Journal.** 22: 375–394.
- Schermerhorn, J. R., Jr. 1981. Open questions limiting the practice of interorganizational development. **Group & Organization Studies**, 6: 83–95.
- Scott, W. R. 1983a. Health care organizations in the 1980s: The convergence of public and professional control systems. In J. W. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality:* 99–113. Beverly Hills, CA: Sage.
- Scott, W. R. 1983b. The organization of environments: Network, cultural, and historical elements. In J. W. Meyer & W. R. Scott (Eds.), Organizational environments: Ritual and rationality: 155–175. Beverly Hills, CA: Sage.
- Scott, W. R. 1983c. Reform movements and organizations: The case of aging. In J. W. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality:* 115–127. Beverly Hills, CA: Sage.
- Scott, W. R. 1987a. The adolescence of institutional theory. **Administrative Science Quarterly**, 32: 493–511.
- Scott, W. R. 1987b. **Organizations: Rational, natural, and open systems.** (2nd ed.) Englewood Cliffs, NJ: Prentice-Hall.
- Scott, W. R., & Meyer, J. W. 1983. The organization of societal sectors. In J. W. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality:* 129–153. Beverly Hills, CA: Sage.
- Scott, W. R., & Meyer, J. W. 1987. Environmental linkages and organizational complexity: Public and private schools. In H. M. Levin & T. James (Eds.), **Comparing public and private schools:** 128–160. New York: Fulmer Press.
- Selznick, P. 1949. TVA and the grass roots. Berkeley, CA: University of California Press.
- Selznick, P. 1957. Leadership in administration. New York: Harper & Row.
- Singh, J. V., Tucker, D. J., & House, R. J. 1986. Organizational legitimacy and the liability of newness. Administrative Science Quarterly, 31: 171–193.
- Spector, P. E. 1982. Behavior in organizations as a function of employee's locus of control. **Psychological Bulletin,** 91: 482–497.
- Thompson, J. D. 1967. Organizations in action. New York: McGraw-Hill.
- Tolbert, P. S. 1985. Resource dependence and institutional environments: Sources of administrative structure in institutions of higher education. *Administrative Science Quarterly*, 20: 229–249.
- Tolbert, P. S. 1988. Institutional sources of organizational culture in major law firms. In L. G. Zucker (Ed.), Institutional patterns and organizations: Culture and environment: 101–113. Cambridge, MA: Ballinger.
- Tolbert, P. S., & Zucker, L. G. 1983. Institutional sources of change in the formal structure of organizations: The diffusion of civil service reforms, 1880–1935. **Administrative Science Quarterly**, 23: 22–39.
- Whetten, D. 1978. Coping with incompatible expectations: An integrated view of role conflict. *Administrative Science Quarterly*, 23: 254–271.
- Whetten, D. A., & Leung, T. K. 1979. The instrumental value of interorganizational relations: Antecedents and consequences of linkage formation. *Academy of Management Journal*, 22: 325–344.

- Wiewel, W., & Hunter, A. 1985. The interorganizational network as a resource: A comparative case study on organizational genesis. *Administrative Science Quarterly*, 30: 482–496.
- Zucker, L. G., 1977. The role of institutionalization in cultural persistence. **American Sociological Review**, 42: 726–743.
- Zucker, L. G. 1983. Organizations as institutions. In S. B. Bacharach (Ed.), *Research in the sociology of organizations*, vol. 2: 1–47. Greenwich, CT: JAI Press.
- Zucker, L. G. 1986. Production of trust: Institutional sources of economic structure, 1840 to 1920.
  In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior*, vol. 8: 53–112. Greenwich, CT: JAI Press.
- Zucker, L. G. 1987a. Institutional theories of organization. **Annual Review of Sociology**, 13: 443–464.
- Zucker, L. G. 1987b. Normal change or risky business: Institutional effects on the "hazard" of change in hospital organizations, 1959–79. *Journal of Management Studies*, 24: 671–701.
- Zucker, L. G. 1988. Where do institutional patterns come from? Organizations as actors in social systems. In L. G. Zucker (Ed.), *Institutional patterns and organizations: Culture and environment:* 23–49. Cambridge, MA: Ballinger.

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#### **Review: The Institutionalization of Rational Organization**

Reviewed Work(s):

Organizational Environments: Ritual and Rationality. by John W. Meyer; W. Richard Scott Walter W. Powell

Contemporary Sociology, Vol. 14, No. 5. (Sep., 1985), pp. 564-566.

Stable URL:

http://links.jstor.org/sici?sici=0094-3061%28198509%2914%3A5%3C564%3ATIORO%3E2.0.CO%3B2-2

#### Interorganizational Linkages and Influence over Decision Making

Keith G. Provan

*The Academy of Management Journal*, Vol. 25, No. 2. (Jun., 1982), pp. 443-451. Stable URL:

http://links.jstor.org/sici?sici=0001-4273%28198206%2925%3A2%3C443%3AILAIOD%3E2.0.CO%3B2-L

- Page 6 of 8 -



#### The Federation as an Interorganizational Linkage Network

Keith G. Provan

*The Academy of Management Review*, Vol. 8, No. 1. (Jan., 1983), pp. 79-89. Stable URL:

http://links.jstor.org/sici?sici=0363-7425%28198301%298%3A1%3C79%3ATFAAIL%3E2.0.CO%3B2-Z

# **Environmental Linkages and Power in Resource-Dependence Relations Between Organizations**

Keith G. Provan; Janice M. Beyer; Carlos Kruytbosch

Administrative Science Quarterly, Vol. 25, No. 2. (Jun., 1980), pp. 200-225.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198006%2925%3A2%3C200%3AELAPIR%3E2.0.CO%3B2-A

### Organizational Antecedents of Role Conflict and Ambiguity in Top-Level Administrators

David L. Rogers; Joseph Molnar

Administrative Science Quarterly, Vol. 21, No. 4. (Dec., 1976), pp. 598-610.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28197612%2921%3A4%3C598%3AOAORCA%3E2.0.CO%3B2-S

## Organizational Structure and the Institutional Environment: The Case of Public Schools

Brian Rowan

Administrative Science Quarterly, Vol. 27, No. 2. (Jun., 1982), pp. 259-279.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198206%2927%3A2%3C259%3AOSATIE%3E2.0.CO%3B2-B

# Interorganizational Dependence and Responsiveness to Affirmative Action: The Case of Women and Defense Contractors

Gerald R. Salancik

The Academy of Management Journal, Vol. 22, No. 2. (Jun., 1979), pp. 375-394.

Stable URL:

http://links.jstor.org/sici?sici=0001-4273%28197906%2922%3A2%3C375%3AIDARTA%3E2.0.CO%3B2-W

#### The Adolescence of Institutional Theory

W. Richard Scott

Administrative Science Quarterly, Vol. 32, No. 4. (Dec., 1987), pp. 493-511.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198712%2932%3A4%3C493%3ATAOIT%3E2.0.CO%3B2-Q

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#### Organizational Legitimacy and the Liability of Newness

Jitendra V. Singh; David J. Tucker; Robert J. House *Administrative Science Quarterly*, Vol. 31, No. 2. (Jun., 1986), pp. 171-193. Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198606%2931%3A2%3C171%3AOLATLO%3E2.0.CO%3B2-U

# **Institutional Environments and Resource Dependence: Sources of Administrative Structure in Institutions of Higher Education**

Pamela S. Tolbert

Administrative Science Quarterly, Vol. 30, No. 1. (Mar., 1985), pp. 1-13.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198503%2930%3A1%3C1%3AIEARDS%3E2.0.CO%3B2-L

# Institutional Sources of Change in the Formal Structure of Organizations: The Diffusion of Civil Service Reform, 1880-1935

Pamela S. Tolbert; Lynne G. Zucker

Administrative Science Quarterly, Vol. 28, No. 1. (Mar., 1983), pp. 22-39.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198303%2928%3A1%3C22%3AISOCIT%3E2.0.CO%3B2-I

#### Coping with Incompatible Expectations: An Integrated View of Role Conflict

David A. Whetten

Administrative Science Quarterly, Vol. 23, No. 2. (Jun., 1978), pp. 254-271.

Stable URL:

 $\underline{http://links.jstor.org/sici?sici=0001-8392\%28197806\%2923\%3A2\%3C254\%3ACWIEAI\%3E2.0.CO\%3B2-\%23}$ 

# The Instrumental Value of Interorganizational Relations: Antecedents and Consequences of Linkage Formation

David A. Whetten; Thomas K. Leung

The Academy of Management Journal, Vol. 22, No. 2. (Jun., 1979), pp. 325-344.

Stable URL:

http://links.jstor.org/sici?sici=0001-4273%28197906%2922%3A2%3C325%3ATIVOIR%3E2.0.CO%3B2-6

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# The Interorganizational Network as a Resource: A Comparative Case Study on Organizational Genesis

Wim Wiewel; Albert Hunter

Administrative Science Quarterly, Vol. 30, No. 4. (Dec., 1985), pp. 482-496.

Stable URL:

http://links.jstor.org/sici?sici=0001-8392%28198512%2930%3A4%3C482%3ATINAAR%3E2.0.CO%3B2-C

#### The Role of Institutionalization in Cultural Persistence

Lynne G. Zucker

American Sociological Review, Vol. 42, No. 5. (Oct., 1977), pp. 726-743.

Stable URL:

http://links.jstor.org/sici?sici=0003-1224%28197710%2942%3A5%3C726%3ATROIIC%3E2.0.CO%3B2-1

#### **Institutional Theories of Organization**

Lynne G. Zucker

Annual Review of Sociology, Vol. 13. (1987), pp. 443-464.

Stable URL:

http://links.jstor.org/sici?sici=0360-0572%281987%2913%3C443%3AITOO%3E2.0.CO%3B2-X