

Adapting to Environmental Jolts

Alan D. Meyer

This paper examines organizational adaptations to an environmental jolt — a sudden and unprecedented event (in this case, a doctors' strike) — that created a natural experiment within a group of hospitals. Although adaptations were diverse and appeared anomalous, they are elucidated by considering the hospitals' antecedent strategies, structures, ideologies, and stockpiles of slack resources. Assessments of the primacy of the antecedents suggest that ideological and strategic variables are better predictors of adaptations to jolts than are structural variables or measures of organizational slack. Although abrupt changes in environments are commonly thought to jeopardize organizations, environmental jolts are found to be ambiguous events that offer propitious opportunities for organizational learning, administrative drama, and introducing unrelated changes. •

Environments often surprise organizations. Trusted clients desert, dissatisfied customers sue, federal regulators file injunctions, and ecological activists boycott. These events exemplify environmental jolts, defined here as transient perturbations whose occurrences are difficult to foresee and whose impacts on organizations are disruptive and potentially inimical. The term "jolts" is used to distinguish external events from their disparate interpretations within organizations as opportunities, threats, crises, or catastrophes (Billings, Milburn, and Schaalman, 1980).

Minor earthquakes rarely topple well-designed buildings resting on solid foundations. Similarly, environmental jolts rarely threaten the survival of soundly designed organizations with well-maintained environmental alignments. However, seismic tremors often disclose hidden flaws in the architecture and construction of buildings, and environmental jolts trigger responses that reveal how organizations adapt to their environments.

A Severe Environmental Jolt

Early on the morning of May 1, 1975, voluntary hospitals in the vicinity of San Francisco were jolted simultaneously. The shock was due not to a shift in the San Andreas fault, but to an unprecedented strike by physicians. A major malpractice insurer had abruptly terminated the group coverage of 4,000 northern California doctors, and then offered to reinsure them as individuals at a 384 percent rate increase (Bodenheimer, 1975). Many doctors paid the higher premiums grudgingly; some elected to continue practicing without insurance; a few opted for early retirement. But, with a tenacity inspired by the highest premiums levied on any medical specialty, hospital-based anesthesiologists turned off their nitrous oxide tanks and went on strike. Most surgeons and referral physicians supported the strike, so elective surgery was curtailed immediately. These events caused alarming declines in hospital admissions, occupancy levels, and cash flows. The strike continued for exactly one month, and its impact was magnified by chronic excess capacity — only 40 percent of the hospital beds in the Bay Area had been occupied on an average day in 1974. Yet hospitals had acquired these beds by incurring debts that left many in tenuous financial positions. No hospital was jolted into

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bankruptcy, but some lost sums in excess of half a million dollars.

The doctors' strike afforded a fortuitous natural experiment. By jolting hospitals away from their equilibria, it revealed properties that were not so visible during more tranquil periods. Links between the hospitals and their environments were highlighted, the integrity and resiliency of organizational structures were tested, and members' implicit values were manifested. Based on research conducted in 19 hospitals, this article describes how organizations adapt to jolts, and it shows how members imbue jolts with idiosyncratic meanings through processes of ideological interpretation.

An Adaptive Research Strategy

A field study focusing on contingency relationships between hospitals' enacted environments, market strategies, formal structures, and informal processes was underway when the doctors went on strike (Meyer, 1977). A group of 19 hospitals had been selected to make up a sample of organizations that were as similar and geographically proximal as possible. The hospitals were located in the same metropolitan area, so they encountered similar regulatory frameworks, factor and labor markets, and standards of professional practice. They belonged to a single generic category, voluntary general hospitals, and were of intermediate sizes, 100–400 beds. They treated a broad range of short-term illnesses, and had no extensive affiliations with medical schools. The following kinds of data were being collected: (1) assessments of strategies by a panel of experts, (2) pictorial diagrams of task environments drawn by chief executives, (3) questionnaire data measuring structures and processes, (4) organizational charts and documents, (5) archival data from hospital associations and state agencies, and (6) notes from structured interviews with chief executives and other informants. These baseline data, which were collected during periods of relative environmental tranquility, were used in this paper to assess organizational antecedents to the doctors' strike.

Devising methods for studying adaptations. As soon as the strike began, the study was expanded to examine adaptive behavior during a jolt. The complexity and dynamism inherent in organizational adaptation, however, posed a methodological dilemma. One alternative was to adopt an ethnographic approach (Sanday, 1979) by becoming deeply immersed in ongoing events within one or two hospitals. Potential advantages of this method included gaining insight into processual, idiosyncratic, and ephemeral aspects of adaptations, directly observing the unorthodox and emergent behaviors that jolts are liable to stimulate, and becoming familiar with the ideological and historical contexts necessary for interpreting events in participants' own terms. The drawback was that an ethnographic approach would preclude systematic comparisons across the entire sample. Conversely, collecting equivalent sets of survey data from all hospitals would allow comparative analyses but would obscure phenomenological aspects of adaptations and introduce biases associated with self-reports. The dilemma was resolved by a compromise.

Three hospitals with maximally disparate strategies, structures, and processes were identified using the baseline data, and their

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adaptations to the jolt were studied intensively through unstructured interviews and nonparticipant observation. Methods of obtaining qualitative data were varied deliberately. These included telephone calls, prearranged interviews conducted in offices, and impromptu conversations in hospital corridors and waiting rooms. One other method proved especially fruitful because it directly tapped informal communication networks. This was for the researcher to haunt hospital cafeterias and join conversations among groups taking coffee and lunch breaks. These methods were employed with physicians, nurses, administrators, and department heads; they elicited detailed descriptions and interpretations of events occurring before, during, and after the strike; and they generated more than 160 pages of field notes.

Naturalistic observations were augmented with more quantitative and unobtrusive measures of adaptations in all 19 hospitals. Information about outcomes was gleaned from financial records, occupancy figures, and payrolls. In addition, chief administrators were interviewed after the strike and were asked to reconstruct sequences of events, and to the extent possible, information was elicited from other participants to verify the administrators' accounts.

Triangulating on adaptations. The objective of this article is to generate theory about organizational adaptations to jolts by triangulating between data from observations, anecdotes, surveys, documents, and archives (Denzin, 1970; Jick, 1979). By juxtaposing qualitative and quantitative modes of analysis, it seeks to compound their discrete advantages, offset their inherent liabilities, and achieve a deeper understanding of adaptation than either method could have produced alone. This strategy is especially appropriate for exploratory research because it yields "thick descriptions" of behavior in context that complement numerical data and facilitate their interpretation (Denzin, 1970).

The tasks of sifting, organizing, and reporting hodgepodes of eclectic data are formidable ones (Van Maanen, 1975). Methods of analyzing such data are not well formulated (Miles, 1979), and, in the absence of accepted analytical conventions, the credibility of findings hinges on "the capacity to organize materials within a plausible framework" (Weiss, 1968: 349). The organization of this article parallels the chronology of the research process. It reports a series of accidents, choices, and surprises overlaid with a combination of phenomenological, theoretical, and verifactory logic. Initially, it seeks to understand adaptation in three individual organizations on their own terms. It then examines antecedents and adduces an explanatory model of organizational adaptation to jolts. Finally, it employs quantitative techniques for refining and extending the model.

The following section begins this process by recounting naturalistic observations of three hospitals' reactions to the strike. These descriptions report both factual data and participants' socially constructed realities. They are written to incorporate the values, vocabularies, metaphors, and verbatim statements used by members to describe the events unfolding in their organizations. The cases portray varied perceptions and diverse adaptive behaviors, and they pose some paradoxes.

Three Surprising Adaptations

Weathering the storm. Memorial Hospital¹ did not foresee the doctors' strike and remained stalwartly unresponsive for its duration. The administrator contended that "preparing for potential crises usually doesn't make much difference — although it is a convenient excuse for not doing your job."

On the first afternoon of the strike, the administrator met with the controller. They reached two conclusions: first, that a prolonged strike would inflict greater financial hardships on physicians than on the hospital; and second, that layoffs and other aggressive cost-cutting measures could lead to unforeseeable work-flow bottlenecks, increase work-force turnover, and jeopardize cordial relations among members. Consequently, they decided to "weather the storm" and avoid laying off any employees. In an off-the-record meeting later in the week, medical staff members conceded that they did not wish to disable the hospital permanently and agreed to a broad definition of surgical emergency. During the month of May, occupancy fell to 50 percent of the normal level and net losses exceeded \$120,000. However, Memorial's financial reserves were adequate, and the strike engendered no permanent changes or adverse consequences.

Memorial's quiescent response to the jolt was perplexing because it was uncharacteristic. During more tranquil periods, the hospital placed great emphasis on cost-efficiency and consistently achieved healthy operating surpluses. Why would a profitable, habitually efficient hospital forego aggressive cost-cutting and passively absorb a sizable capital loss?

A good experiment. Community Hospital adapted to the doctors' strike rapidly and comprehensively. Members anticipated the malpractice insurance crisis, accurately projected its impact on the organization, and adjusted internal operations with such dexterity that the hospital actually made money during the strike.

Community's administrator foresaw the possibility of a strike two months before it occurred. In order to forecast its effects, the administrator, the chief of surgery, and the head of outpatient services met and developed the following scenario: "All our surgical patients and half our medical patients will be lost, surgery will be available only to critically ill patients who would be jeopardized by transportation, occupancy will fall to 40–50 percent of normal levels, and the demand for outpatient services will increase 50 percent." Six weeks before the strike, this scenario was distributed to all department and program heads. They were instructed to submit detailed projections of its impact on work loads and written plans for action.

When the strike began on May 1, occupancy rapidly fell to 40 percent. Departments implemented contingency plans with little alteration. Layoffs reduced labor costs by nearly 40 percent. Fewer than 15 operations were performed during the month-long strike, but cost-cutting was so effective that the hospital netted \$10,000. When the strike ended, occupancy climbed to normal levels, and Community had little difficulty getting people back to work. The administrator described the strike as a "good experiment" and a learning experience. "We learned that we could adapt to almost anything — including a

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Names have been changed and certain organizational characteristics have been disguised to protect informants' anonymity.

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drastic drop in our patient load — and in the process, we discovered some new techniques for cutting our operating costs.”

But Community’s adaptation to the jolt was also paradoxical. Normally the hospital resembled an organized anarchy — new programs were spawned at a rate that outstripped evaluations of performance, and operating losses were commonplace (in May of 1974, there was a \$50,000 deficit). How could a habitually chaotic institution orchestrate the decisive and coordinated actions that generated a positive cash flow during the strike?

What doctors strike? Although the jolt disrupted the routine functioning of General Hospital’s patient-care division, equilibrium was quickly restored. The strike was anticipated by three weeks. Systems analysts conducted sensitivity analyses of hospital-wide effects of varying rates and levels of decline in surgery and occupancy. Their simulations indicated that existing budgetary and control systems could “absorb the impact easily.”

As the strike unfolded, its effects on General’s cash flow were diluted by sustained levels of activity in some subunits and were offset by increased levels of activity in others. No salaried personnel were laid off, although some work shifts were shortened and surplus employees were temporarily reassigned. Outpatient clinics extended their hours and mailed notices to patients saying that the clinics would continue meeting their needs. Surgery declined by 40 percent and occupancy by 30 percent, but General’s cash flow was virtually unaffected. “What strike?” two informants replied facetiously to queries about its effects. The administrator commented: “I certainly wouldn’t describe it as a crisis — we contend with the same sort of problems every day.”

General’s reactions to the strike were puzzling, because they appeared negligible yet were extremely effective. Cash reserves were not depleted, only a few hourly employees were laid off, and no heroic measures were taken by administrators. How did the hospital compensate so effortlessly for the seemingly disruptive decline in a crucial input?

In a later section, it will be argued that the ostensible similarities between Memorial, Community, and General mask many important differences and that examining these differences elucidates their ostensibly counterintuitive reactions. First, however, a model of organizational adaptation to environmental jolts is proposed and adaptive behavior across the entire sample of hospitals is examined.

Conceptualizing Adaptation

Figure 1 outlines a conceptual model positing that adaptive behavior involves selective responses to feedback (Metcalfe, 1981) that map environmental attributes into systems capable of learning (Hedberg, 1981). The model incorporates the stimulus-response paradigm and the variation-selection-retention mechanism (Weick, 1969) in proposing that when jolts emanate from environments, organizations select and interpret stimuli according to theories of action (Argyris and Schön, 1978) encoded in prevailing strategies and ideologies (Miles and Snow, 1978; Starbuck, 1982). The filtered stimuli

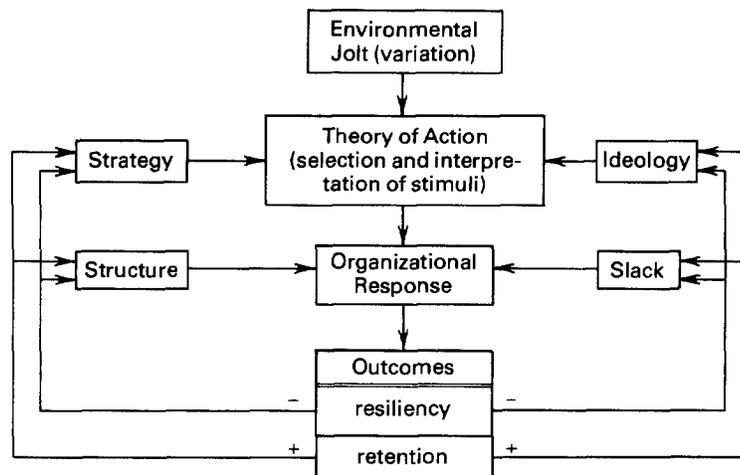


Figure 1. Organizational adaptations to jolts.

elicit responses that exploit caches of slack resources and are constrained by behavioral repertoires crystallized in structures (Cyert and March, 1963). The organizational outcomes depicted in the model, resiliency and retention, stem from two environmental mapping processes. Resiliency occurs when responses create negative-feedback loops that absorb jolts' impacts and loosen couplings between organizations and their environments. This kind of mapping is deviation-reducing (Maruyama, 1963), creates first-order change (Watzlawick, Weakland, and Fisch, 1974), and engenders single-loop learning (Argyris, 1976). Retention occurs when responses expose new causal relationships that then modify theories of action, augment behavioral repertoires, and alter structural configurations and slack resource stockpiles. This kind of mapping is deviation-amplifying. It also creates second-order change and resembles double-loop learning.

Operationalizing Adaptation

Both the model and the cases suggest that adaptations to jolts are divisible into three phases: an anticipatory phase when the portents may be perceptible, a responsive phase while the primary impacts are being absorbed, and a readjustment phase after the shocks have subsided. Based on the diverse adaptations discovered during the observational portion of the study, some variable characteristics of each phase were identified and techniques for measuring them across the entire sample were devised. Table 1 lists the variables and shows the relative positions of Memorial, Community, and General within the larger sample of 19 hospitals.

Observations suggested that although the jolt was preceded by foreshocks, some hospitals overlooked or disregarded these tremors, whereas others noticed them and made preparations. Forewarning was operationalized by ascertaining the number of days that chief administrators anticipated the strike.

The strike had different impacts on hospitals' occupancies, it elicited different adjustments in their staffing levels, and these changes evoked variations in their cash flows. These variables were operationalized as proportional declines in projected occupancies, proportions of FTE employees laid off, and proportional changes in projected revenues.

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Table 1

Adapting to a Jolt: How Memorial, Community, and General Compare to the Nineteen-Hospital Sample

| Phases of Adaptation | Variables | Rank order within the sample* | | |
|----------------------|----------------|-------------------------------|-----------|----------|
| | | Memorial | Community | General |
| Anticipatory | Forewarning | L (1.5) | H (17) | M (8) |
| | Occupancy lost | H (15) | H (17) | L (2.5) |
| Responsive | Layoffs | L (1) | H (19) | L (2.5) |
| | Revenue lost | H (17) | L (2.5) | L (4) |
| Readjustment | Learning | L (5) | H (18) | L (4) |
| | Resiliency | H (18.5) | H (15) | H (17) |

*Hospitals were ranked from lowest to highest on each variable. To facilitate comparison, the parenthesized rank orders were used to trichotomize the sample into Low (1–6), Medium (7–13), and High (14–19) subgroups.

Observations also revealed differences among the hospitals in the strike's aftermath, suggesting that whereas some organizations learn during jolts and undergo second-order changes, others rebound untutored to their original states when perturbations cease. This dimension was assessed by asking administrators two questions: (1) What did you learn from the strike? and (2) What enduring organizational changes have resulted? Based on the assumption that lengthy answers to these questions indicated greater learning, a "field stimulation" measure of organizational learning was deduced from responses by simply counting the number of words administrators used in answering these two questions (Salancik, 1979).²

Interviews with the other sixteen administrators in the larger sample suggested a fifth variable that had been obscured by the fact that each of the three hospitals that were observed intensively happened to ameliorate the consequences of the jolt successfully. Other hospitals, however, experienced lingering exigencies — chronically lower occupancies, shorter patient stays, losses of skilled nurses, and other inimical consequences. This variable was labeled resiliency and was operationalized in terms of the number of weeks needed to restore seasonally normal levels of surgery and occupancy. According to the chief financial officers who supplied these data, recovery rates for surgery and occupancy corresponded closely.

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The qualitative data show that a jolt from the environment can evoke different organizational perceptions and elicit different organizational reactions. They also indicate that a given organization's behavior during a jolt may diverge substantially from its behavior during more tranquil periods. In search of explanations for these differences within and between organizations, the study's focus shifted to the hospitals' preexisting characteristics.

The literature suggests that organizations' adaptations to environmental forces are influenced by the strategies they pursue (Miles and Snow, 1978), the structures they adopt (March and Simon, 1958), the ideologies they espouse (Beyer, 1981), and the slack resources they amass (Bourgeois, 1981). Fragmentary evidence links adaptations to variables drawn from each of

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As an anonymous reviewer pointed out, the word-length measure might have reflected verbosity rather than learning. To examine this possibility, an index was constructed from an independent coder's assessments of the extent of "turnover learning" and "adjustment learning" (Hedberg, 1981) reflected in the transcripts. A correlation of .84 between the index scores and the word-length measure supports the latter's validity.

these conceptual categories, but most of the links are tenuous. The consequences of adaptations among populations of organizations have been inferred retrospectively from correlational analyses (Hannan and Freeman, 1978), but these analyses mask the underlying causal processes (Child, 1972), and comparative studies have not encompassed all four conceptual categories. The dynamics of adaptations within single organizations have been clarified in impressionistic accounts (Chandler, 1962) and simulated in classrooms (Miles and Randolph, 1980; Meyer, Snow, and Miles, 1982), but these findings may not generalize to other organizations, and since most adaptations evolve slowly, intertwined causes and effects render causal attributions problematic. Thus, little is known about the relative influence of strategy, structure, ideology, and slack on different stages of adaptive processes.

In this context, the doctors' strike created a rather unique opportunity for studying adaptation. Its intensity overwhelmed other exogenous influences on the hospitals; its brevity compressed adaptive processes rendering them more amenable to study; its aberrant character forestalled advance preparation and enabled distinctions to be made between causes and effects.

No effort was made at the outset to formulate explicit hypotheses for empirical verification. Rather, the objective was to get behind the "net effect of behavior to the more intricate dynamics producing the effect" (Merton, 1968: 153). A theoretical perspective was synthesized, however, to guide the inquiry.

Strategy is conceptualized in terms of the breadth, volatility, and organizational surveillance of enacted market niches (Weick, 1977; Hannan and Freeman, 1978). The basic line of reasoning is that surveillance expedites perception of external stimuli, volatile markets inculcate adaptive capabilities, and broad niches diffuse external dependencies.

Structural analyses focus on task allocations among subunits and mechanisms invoked to control and coordinate work (Ashby, 1960; Simon, 1969). The contention is that responses to exigencies will be facilitated or encumbered by task structures erected during periods of tranquility. Following contingency theory, structural formalization, specialization, complexity, and size are presumed to create rigidities inhibiting swift responses.

Organizational ideologies are viewed as constellations of shared beliefs that bind values to actions (Beyer, 1981) and are manifested in languages, stories, and ceremonial acts (Pettigrew, 1979). When environments buffet organizations, ideologies espoused by elites should become especially salient (Hage and Dewar, 1973; Pfeffer, 1981), so the forthcoming inquiry seeks links between power holders' beliefs and organizations' responses.

Cushions of slack resources are said to insulate organizations from external shocks (Thompson, 1967), fuel adaptive responses to them (Cyert and March, 1963), and foster organizational learning (Hedberg, 1981). Consequently, analyses will compare processes that create and deploy surpluses during tranquil periods with those that consume and exploit them during jolts.

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Table 2

Antecedents to the Jolt: Strategy, Structure, Ideology, and Slack

| Organizational Antecedents | Organizational Characteristics and Rank Orders within the Sample* | | | Definitions of lowest rankings |
|---|---|-----------------------|-----------------------------|-------------------------------------|
| | Memorial | Community | General | |
| Market strategy | | | | |
| Strategic type ¹ | Defender | Prospector | Analyzer | |
| Innovativeness of market behavior ¹ | L (3) | H (18) | H (14) | least innovative |
| Administrator's attention devoted to the environment ² | L (1) | H (16) | H (19) | least attention |
| Boundary spanning ¹ | L (3) | H (17.5) | M (11.5) | least extensive |
| Scope of services provided ^{3, 4} | L (3) | L (4) | M (12) | narrowest scope |
| Scope of outpatient and long-term services ^{3, 4} | L (4) | M (7) | M (13) | narrowest scope |
| Proportion of revenue from medicare ⁴ | M (8) | H (15) | M (6.5) | smallest proportion |
| Hospital structure | | | | |
| Structural type ⁵ | Functional | Product | Divisionalized | |
| Size ⁴ | L (5) | L (3) | H (18) | lowest patient census |
| Complexity ^{6, 4} | M (8) | L (4) | H (15) | least complex |
| Formal job descriptions ⁷ | M (8.5) | L (3) | M (8.5) | smallest proportion of jobs |
| Decision centralization ⁷ | H (18.5) | L (4) | M (8) | least centralized |
| Medical specialization ⁴ | M (11) | L (6) | H (14) | smallest proportion board certified |
| Organizational ideology | | | | |
| Dominant metaphor ⁶ | Lean and hungry | Entrepreneurial mob | Corporate system | |
| Perceived importance of environment ⁷ | L (1) | H (19) | M (8) | least important |
| Stories about strategic reorientations ⁹ | L (4) | H (13.5) | H (16) | fewest reorientations |
| Benefits expected from changes ⁷ | L (3) | H (16) | M (9) | smallest benefits |
| Subordinates' perceived capabilities ⁷ | H (17.5) | M (11) | M (8.5) | fewest capabilities |
| Benefits expected from participation ⁷ | L (2) | H (17) | H (16) | smallest benefits |
| Slack resource deployment | | | | |
| Predominant kind of investment ⁸ | Capital reserves | People and innovation | Diversification and control | |
| Financial reserves ⁴ | H (16) | L (3) | M (7) | fewest days in working capital |
| Human resources ⁴ | L (3) | H (15) | M (7) | fewest employees per patient |
| Medical technology ⁴ | L (4) | H (14) | M (10) | smallest investment per patient |
| Control systems ⁷ | L (6.5) | L (2.5) | H (17) | least sophisticated |

Sources of Data:

¹Ratings by panel of independent health care professionals.

²Structured interviews with chief administrators.

³Guttman scales measuring scope of general, outpatient, and long-term health care services (Edwards, Miller, and Schumacher, 1972).

⁴California State Health Facilities Commission data.

⁵Analysis of documents, interview notes, and nonparticipant observation.

⁶Index indicating proportion of available services that are separately organized, staffed, and budgeted.

⁷Administrators' responses to questionnaire items (Meyer, 1977).

⁸Verbatim language used independently by two or more informants.

⁹Content analysis of organizational histories.

*Rank orders are parenthesized and were used to trichotomize the sample into Low (1–6), Medium (7–13), and High (14–19) subgroups.

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Further information on the variables and their measurement are available in Meyer (1977, 1978) or by writing to the author.

Variables pertaining to strategy, structure, ideology, and slack had been measured for the original study.³ The available measures and each hospital's position relative to the entire sample are shown in Table 2.

Memorial Hospital

Defending market niches. Memorial inhabited a stable niche of the health-care industry and limited environmental surveillance to its narrow domain. Memorial's administrator described it as a "high quality community institution that provides excellent basic health care but immediately refers out cases that are esoteric, complex, or that require sophisticated medical machinery." He devoted an estimated 90 percent of his attention to internal operations, and he vigorously dissuaded subordinates from joining hospital or professional associations, participating in regional planning, or forging other external linkages. Doctors liked to admit maternity and routine-surgery patients because Memorial possessed experienced surgical teams, scheduled operations shrewdly, provided conscious care, and levied reasonable charges.

Data in Table 1 corroborate members' perceptions. A panel of health experts classified Memorial as a Defender — an organization striving to dominate secure niches in stable markets (Miles and Snow, 1978). The experts judged Memorial's marketing practices to be conservative, and boundary spanning to be minimal. Secondary data confirmed that services were narrowly circumscribed.

A rudimentary functional structure. Memorial was a relatively small hospital of intermediate formalization and complexity. Its functional structure approximated a fully joined system (Ashby, 1960) in which a perturbation in any one component requires readjustment in all others. Admissions were scheduled carefully to stabilize occupancy. From the hospital's viewpoint, most patients had routine ailments, and staff specialists guided them through familiar sequences of hospital procedures, ranging from efficiently administered batteries of presurgical tests to tightly scheduled trips through the operating and recovery rooms. Collaboration across departmental lines occurred rarely because few fundamental problems remained to be solved. The administrator asserted that "about 60 percent of the 'work' they do in other hospitals is nonessential." He singled out memos, meetings, and conferences as "frivolous activities" that Memorial minimized.

A lean and hungry organization. Memorial's ideology cherished self-reliance, predictability, and efficiency. The controller's metaphor for the hospital was "a lean and hungry organization." Dense boundaries encircled a distinctive culture and insulated members from external change. The data in Table 1 suggest that Memorial's administrator ignored the environment because he believed that external events had minimal impacts on organizational outcomes. "Our approach," he said, "is to wait until it's cast in concrete, and then do as little as possible. We don't try to be first — it's a waste of time and money."

Extensive delegation of authority to a stable work force nurtured shared values and consensual anticipations that supplanted explicit coordination. The administrator and controller had 12-year and seven-year tenures, and their values and personalities seemed eminently congenial. The personnel director observed that "people either quit after a week or they stay 10 years." He went on: "This is a Theory Y hospital, but it's

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also a pull-your-own-weight hospital. You're given tremendous freedom, but you have to enjoy working hard."

Table 1 indicates that Memorial's administrator valued his subordinates' capabilities but believed that the hospital was unlikely to benefit from participatory decisions or future organizational changes. His account of Memorial's history included a parable about the hazards that accompany strategic reorientations (Normann, 1971): internecine warfare had erupted while Memorial was devising a scheme to tap the market for geriatric care. Although the plan was abandoned, it took "five years to dispel the animosity." The moral of the story was that pursuing environmental opportunities can imperil a lean and hungry organization.

Investing slack in financial reserves. Efficient operations and low labor costs had generated five consecutive years of operating surpluses at Memorial and had enabled the accumulation of substantial financial reserves. This buffer absorbed fluctuations in cash flows and funded the hospital's modest expenditures for medical technology. Memorial's leaders accorded such importance to financial slack that they had assumed management of the hospital's pension fund and they selected the portfolio of investments personally. A low employee-patient ratio minimized slack human resources, and supervisory job designs embodied the maxim that "everybody does some bench work." Accordingly, no department head or administrator had an assistant or a private secretary. The controller prepared and typed his own financial statements. Each nursing supervisor rotated periodically to patient-care duties.

Community Hospital

Prospecting for new markets. Community was widely known for delivering health care in innovative ways, and the hospital gravitated continuously toward volatile sectors of the industry. The expert panel classified Community as a Prospector — an organization seeking to develop new products or services across a broad spectrum of markets (Miles and Snow, 1978). Although the scope of traditional services for hospitalized patients was relatively narrow, Community pioneered in offering outpatient surgery and ambulatory care. It collaborated in instituting a sexual-assault treatment center, and it used closed-circuit television and computer terminals to communicate with satellite family-care centers. According to the administrator, the hospital's mission was "promoting the health and well-being" of everyone in the vicinity by providing "community-oriented primary medicine, either directly or by catalyzing the development of independent health services." He devoted 70 percent of his time to managing external relationships, and many subunits linked independently to patient groups, community organizations, and planning agencies.

A loosely coupled product structure. Community resembled a nearly decomposable system (Simon, 1969): a loose federation of heterogeneous components, many of which coalesced around distinct programs or distinct patient groups. Partitioning services with subunit boundaries allowed components to be grafted onto the organization or severed with minimal disruption (Weick, 1976), but this practice also mandated lateral linkages to coordinate patient care. Community's relatively simple, nonformalized structure, however, institutionalized few

interdepartmental linkages. Innovative activities are notoriously difficult to direct and control, so departments collaborated spontaneously and performance data were evaluated close to their points of origin. Central administrators found it difficult to update measurements and standards in the face of ongoing organizational changes. One physician commented that apart from "monitoring doctors' record-keeping habits," the hospital exerted "little control over the quality of care."

An entrepreneurial mob. "This is a chaotic place," said another physician. "In fact, sometimes it reminds me of a mob." Community, however, was an ideologically charged mob that valued innovation, pluralism, and professional autonomy. No administrator in the study accorded greater importance to environmental events than did Community's administrator. He punctuated his account of Community's history with anecdotes about how its mission had been remodeled by devising new services and developing new markets.

Pluralistic values and a richly connected network of informal power kept Community from disintegrating and being absorbed by its environment. Power shifted in response to changing issues. Changes created choice opportunities that cut across subunits and stimulated the formation of temporary coalitions. These coalitions reflected a consensus about issues at hand, but they were unstable because they bridged dissonant objectives and different professional subcultures. Community coordinated work and reallocated resources by means of impromptu agreements that were negotiated informally, used briefly, forgotten, and reinvented when needed (Strauss, 1963). "The really important decisions aren't made in the board room," said a department head, "they're made down in the trenches." Informal agreements were legitimated by shared values and cultivated by Community's administrator, who purposefully avoided codifying procedures, restricting information flows, and freezing relationships between subunits.

Investing slack in human resources. The bonds between Community and its environment grew out of slack human resources and state-of-the-art technologies: administrative and professional employees abounded, and the hospital's entrepreneurial ideology and loosely coupled work flows encouraged them to look outward. They initiated services and programs at a pace that was remarkable given the hospital's size. They coordinated their work with ad hoc negotiations that supplanted formal control systems. Community's financial reserves were meager, in large part, because their services were costly.

General Hospital

Enacting diverse markets. General served virtually every sector of the health-care industry. The hospital admitted affluent private patients as well as low-income Medicaid patients, provided primary care for outpatients and long-term care for inpatients, and operated a large obstetrics service, but also offered esoteric medical specialties. The chief executive devoted almost all of his attention to external affairs and General's market behavior was rated highly innovative. The expert panel classified General as an Analyzer — an organization seeking to exploit new market opportunities while simultaneously main-

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taining a secure base of traditional clients (Miles and Snow, 1978).

A divisionalized structure. General was subdivided into three semiautonomous divisions, each headed by an administrator reporting directly to the chief executive. The patient-care division housed subunits contributing to the routine care and maintenance of inpatients — nursing, physical therapy, pharmacy, housekeeping, building maintenance, and so forth. These functionally differentiated subunits performed relatively predictable and well-understood tasks. Control processes within the division were centralized and budget-oriented to encourage cost-effective provision of standard services.

General's clinical-diagnostic division performed nonroutine, experimental, and technical medical tasks. Its clinics were differentiated according to specific diseases or patient groups, and its diagnostic subunits according to medical specialties. Because tasks were diverse and required discretion, the information needed to assess and correct performance often existed only within the operating units themselves. Consequently, control processes were decentralized, particularistic, and relied on self-control by professional workers.

General's resources and planning division supplied managerial support to the health-care providing units, managed their interdependence, and insulated them from environmental forces. Reporting to its administrator were specialists in finance, management systems, data processing, planning, personnel, medical records, education, and community relations. The division coordinated the work of patient-care teams by scheduling activities performed throughout the hospital by physicians, nurses, paraprofessionals, and technicians. The division oversaw flexible budgeting and staffing systems that were linked to intradivisional controls and compensated automatically for variations in work loads by reallocating resources and positions. This two-stage regulation (Ashby, 1960) minimized direct conflict between representatives of the other two divisions and limited the attention that middle managers had to devote to controlling and coordinating subordinates' task performances.

The resources and planning division also linked the hospital to institutional components of its environment. The division mediated relations with medical schools through its education subunit and with the surrounding community through its public relations subunit. Other subunits tracked the financial, health-planning, and regulatory environments.

Corporate cybernetics. General's chief executive viewed it as "a business — competing just like any other, for capital, labor, and customers." In sharp contrast to Memorial and Community, however, all members did not adhere to the same values. Instead, the hospital's divisionalized structure was sustained by an ideological amalgam. The patient-care division shared values fostering therapeutic efficiency. The clinical-diagnostic division shared values legitimating professional autonomy and creating "an ambiance of intellectual curiosity and excitement." These two subcultures were overarched by the managerial ideology of resources and planning. The most cherished values of the latter division — regulation and control — were both symbolized and incarnated by ubiquitous computer terminals, capable of "inter-

facing" the hospital's "clinical and administrative data bases in real time." The speaker was an enthusiastic business-school graduate who added, "We've just scratched the surface — our management information system has the potential to improve health-care delivery in ways we're only beginning to grasp."

Investing slack in diversification and control. Diversifying services and controlling performance consumed the bulk of General's surplus resources. Developing the hospital's broad portfolio of services had entailed sizable capital outlays, and maintaining these services entailed sizable operating expenses. Similarly, controlling and coordinating subunits performing interdependent tasks while pursuing incongruous objectives demanded elaborate and costly sets of linked incentives and crisscrossing constraints. Accordingly, General had opted to divert surplus resources to program development and systemic regulation, and maintain moderate staffing levels, financial reserves, and stocks of medical technology.

INTERPRETING AND EXPLAINING ADAPTATIONS TO JOLTS

Some paradoxes posed by the adaptive behaviors observed during the strike were noted earlier — an efficient hospital eschewed cost-cutting, an anarchistic hospital acted decisively, and a large, complex hospital adjusted effortlessly. The adaptive behaviors and their antecedents are summarized in Table 3. This section interprets adaptations in terms of antecedents, and it uses multiple regressions to assess the relative importance of different antecedents at the anticipatory, responsive, and readjustment phases of adaptation.

Anticipating Jolts

The cases suggest that foresight hinges on strategy. Organizations like Memorial that pursue conservative strategies typically enact narrow domains and monitor other sectors of their environments perfunctorily. Such organizations are liable to overlook or disregard the tremors that foreshadow jolts. Organizations like Community that pursue entrepreneurial strategies typically enact volatile domains and scan numerous environmental sectors keenly. Such organizations are liable to detect the tremors and prepare for jolts. Organizations like General that pursue diversified strategies typically enact broad domains and establish specialized subunits to scrutinize different environmental sectors. Jolts are unlikely to take such organizations by surprise.

The proposition that forewarning is best explained by market strategy can be examined in all 19 hospitals. Forewarning was regressed on the four clusters of antecedent variables separately, and Table 4 shows the amounts of variance in forewarning that each cluster explains. Strategy variables account for the most variance, and the zero-order correlations presented in the Appendix suggest that the potential for a strike was detected earlier by hospitals that marketed their services more innovatively, spanned their boundaries more extensively, and whose administrators devoted more attention to their environments. Although structural variables accounted for only 19 percent of the variance, the zero-order correlations indicate that formalized jobs and centralized decisions were associated with less forewarning.

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Table 3

| Organizational Antecedents and Adaptations to Jolts | | | |
|--|---|---|---|
| Antecedents | Memorial Hospital | Community Hospital | General Hospital |
| Market strategy | Defender (stable niches, intensive surveillance) | Prospector (volatile niches, extensive surveillance) | Analyzer (broad niches, specialized surveillance) |
| Organization structure | Functional (fully joined) | Product (nearly decomposable) | Divisionalized |
| Ideology | | | |
| Metaphor | Lean and hungry organization | Entrepreneurial mob | Corporate system |
| Shared values | Efficiency, predictability, self-reliance | Innovation, pluralism, professional autonomy | Cybernetic control linking organizational subcultures |
| Deployment of slack resources | | | |
| Financial | Large reserves | Small reserves | Moderate reserves |
| Human | Understaffing | Overstaffing | Moderate staffing |
| Technology | Small investment | Large investment | Moderate investment |
| Control | Small investment | Small investment | Large investment |
| Strike Adaptations | | | |
| Tactics | Weather the storm. | Experiment and learn. | What strike? |
| Adaptation phase | | | |
| Anticipatory | Little forewarning, no preparation. | High forewarning, impact predicted, contingency planning. | Moderate forewarning, impact simulated with computers. |
| Responsive | Absorb jolt by consuming financial reserves. Enlist tacit cooperation of physicians. Protect implicit modes of control and members' commitment. | Absorb jolt by reducing staffing. Centralize power temporarily. Exploit subunits' autonomy, middle managers' expertise, and members' tolerance of change. Protect minimal capital reserves. | Absorb jolt through diversified services and self-regulating control procedures. Monitor reallocation of budgets, people, and attention. Act only to insure that control system's capacity is not exceeded. |
| Readjustment | Revert to antecedent state. | Apply insights about adapting and containing costs. | Continue balancing workloads and resources. |

Table 4

| Variance in Adaptation Explained by Strategy, Structure, Ideology, and Slack* | | | | | | | |
|--|---------------------|-----------------------|----------------|---------------------|---------------------------|-----------------|---|
| Variables in the equation† | Anticipatory | Responsive | | | Readjustment Phase | | Values of R² averaged across all three phases |
| | Forewarning | Occupancy lost | Layoffs | Revenue lost | Resiliency | Learning | |
| Strategy variables | .38 | .23 | .00 | .67 | .42 | .47 | .36 |
| Structural variables | .19 | .17 | .00 | .31 | .29 | .44 | .23 |
| Ideological variables | .22 | .43 | .43 | .44 | .39 | .41 | .39 |
| Slack variables | .04 | .00 | .30 | .36 | .06 | .12 | .15 |

*Entries in the table are adjusted coefficients of determination, calculated through stepwise multiple regressions.

†The dependent variables were regressed separately on each group of predictor variables.

Responding to Jolts

The cases suggest that whereas the impacts of jolts are influenced by strategies and absorbed by slack resources, the reactions to jolts are shaped by ideologies and constrained by structures.

Diversification diminishes impacts. Organizations like Memorial that serve narrow markets experience severe impacts when the markets are disrupted, but diversification mitigates impacts for organizations like General that serve multiple markets. The regression results in Table 4 offer some support for these observations: strategic variables were the best predictors of revenue losses during the strike. Zero-order correlations suggest that inhabiting broad environmental niches diminished the strike's impact — fewer revenues were lost by hospitals that served more Medicare patients, more outpatients, and more long-term patients.

Slack cushions impacts. During tranquil periods, organizations strive to amass slack resources. During jolts, these caches of slack constitute organizational shock absorbers that buffer visceral components, safeguard brittle linkages, and conserve scarce resources. Memorial absorbed the strike's impact and protected socially embedded organizational attributes by opting to deplete financial reserves rather than lay off employees. But for Community, layoffs were imperative because financial reserves were meager. They were feasible because members were accustomed to impermanence, and they were efficacious because slack human resources existed. General avoided both layoffs and losses, because slack was invested in pliable controls that automatically reallocated tasks, budgets, and staff. Administrators monitored and fine-tuned the control system, but the strike's impact did not exceed its capacity. Thus, the exploitation of slack resources helps account for General's modest response to the jolt, Memorial's quiescent response, and Community's vigorous response.

The regressions for the larger sample support the contention that slack resources are linked more closely to organizations' responses to jolts than to anticipation or readjustment. The measures of slack explain some of the variance in layoffs and revenue losses. Zero-order correlations indicate that fewer revenues were lost by hospitals with meager financial resources, that more employees were laid off by hospitals with abundant human resources, and that fewer employees were laid off by hospitals where more resources were invested in control systems. The regressions also suggest, however, that organizations' ideologies explain responses better than their slack resources.

Ideologies shape responses. Ideologies are "relatively coherent sets of beliefs that bind people together and explain their worlds in terms of cause-and-effect relations" (Beyer, 1981: 166). But the causation is circular because ideologies also shape their adherents' worlds. They legitimize certain actions, render other actions heretical, and create meanings for events that have yet to occur.

The cases suggest that jolts acquire meanings from ideologies that determine whether the jolts are perceived as dilemmas, opportunities, or aberrations. Memorial's leaders perceived the jolt as a decline in revenue and thus they confronted an ideological dilemma: which is more crucial — our balance sheet or the commitment of our employees? Efficiency was valued, and inaction would jeopardize Memorial's cash flow. Self-reliance, however, was also valued, and members would regard unilateral administrative actions as improper, yet the members

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were inept at collaborative problem solving. The employees' interests finally prevailed because Memorial's leaders decided that the hospital's financial reserves exceeded those of the doctors. Community's leaders perceived the jolt as an upheaval in the environment, and they interpreted the upheaval as an opportunity for a drill, testing members' adaptive dexterity. The pluralistic ideology gave rise to an ad hoc coalition that constructed accurate projections of the strike's impact on the hospital. Supervisors planned for this contingency adroitly because authority was customarily delegated to foster novel solutions to unfamiliar problems. General's leaders perceived the jolt as an aberration. They simulated its effects with computers and after concluding that it would be absorbed by routine controls, they ignored it. The corporate-style ideology of General's resources and planning division legitimated rapid reallocations of budgets and staff among the other divisional subcultures.

The regression results show that ideological variables explain substantial amounts of the declines in occupancy, employment, and revenue. The pattern of zero-order correlations suggests that the declines in these three measures were smallest in hospitals whose ideologies accorded importance to environments, fostered strategic reorientations, embraced organizational changes, valued members' capabilities, and encouraged participation.

Structural constraints on responses. Organizational structures institutionalize interdependencies that may constrain responses to jolts. Memorial's functional structure concatenated interdependent tasks into programmed sequences that were difficult to decompose. Community's product structure permitted the problem of adjustment to be readily factored among subunits encompassing discrete services. General's divisionalized structure localized the effects of the strike, prevented them from ramifying throughout the hospital, and allowed many subunits to continue operating without disruption.

The quantitative analyses provide only limited support for the effects of structures on responses. When structural variables were analyzed collectively in regressions, they accounted for little variance. However, the zero-order correlations indicate that large hospitals lost fewer patients and decentralized hospitals lost fewer dollars.

Readjusting to Tranquility

When environmental jolts subside, organizations' resiliencies are revealed, and the consequences of their adaptations can be assessed. First-order changes dissolve as the organizations revert to their antecedent states, but second-order changes congeal and the adaptations endure.

Rebounding from jolts. Memorial, Community, and General were among the most resilient organizations studied — when the strike ended, their surgery and occupancy rates rose to normal before three weeks had elapsed. Although the heterogeneity of these hospitals' antecedents and responses attests to the diversity of adaptive processes, it conceals the sources of their resiliency.

But at Doctors Hospital, another hospital in the larger sample, the antecedents to the jolt were discordant and its consequences were severe and protracted. According to the administrator, "not one shred of institutional loyalty" tempered the physicians' "virtual boycott of the hospital." Occupancy fell to 40 percent, and employees were asked to use vacation time they had accrued. This reduced the staff, but financial losses were unaffected because salary payments continued. The vacation policy was countermanded after two weeks, and employees were laid off according to seniority. Nursing services were hit hardest by the cutbacks. One informant remarked on the poor timing of the administrators' actions, describing them as "either too little too late, or too much too late." Six months after the strike, occupancy still had not risen to normal levels, and patients were spending an average of 2.5 fewer days in the hospital. Members' diagnoses of Doctors Hospital's lingering symptoms differed — they were variously attributed to the failure of skilled nurses to return to work, a schism between employees and physicians, and an avoidance of complex cases by liability-conscious physicians.

Inconsistency may be a hallmark of unsuccessful organizations (Snow and Hrebiniak, 1980), and the case of Doctors Hospital suggests that jolts are accentuated by discordant ideologies and responses that magnify impacts. The quantitative analyses square with this interpretation: the regressions indicate that strategic and ideological variables are the best predictors of resiliency, and the zero-order correlations suggest that the less resilient hospitals relied on surgical patients excessively, marketed their services conventionally, amassed less slack, disdained strategic reorientations, and doubted members' capabilities.

The data also suggest that organizations experiencing jolts' impacts intensely and responding to the impacts vigorously will have difficulty rebounding swiftly. When resiliency was regressed on occupancy losses, layoffs, and revenue losses, these variables accounted for a modest portion of the variance ($R^2 = .34$). As might be expected, the inimical consequences of the strike were prolonged in the hospitals that had lost the most dollars, patients, and employees during their adaptations.

Capitalizing on jolts. When adversity looms, astute administrators are alert for clandestine opportunities. This is an ancient Eastern insight. The Chinese ideogram for crisis combines two simpler symbols: the symbols for danger and the one for opportunity (Starbuck, Greve, and Hedberg, 1978). In addition to the dangers they present, environmental jolts create opportunities for organizational learning, administrative drama, and introducing unrelated changes.

Community's administrator interpreted the strike as an opportunity to learn from "a good experiment." He achieved a better understanding of the hospital's adaptive capabilities and discerned some guidelines for containing future costs. Another hospital's administrator identified some overstaffed workgroups when layoffs failed to evoke the anticipated drops in output. He also learned that "we're not as dependent on our medical staff as everyone always assumed we were." Patients may have learned the same lesson: the area's death rate dropped during the strike, and in its aftermath some of the

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doctors found that their practices had dwindled (Maddox, 1976).

Clues about organizational characteristics that enhance learning can be educed from the quantitative analyses: strategic variables account for the most variance in regressions of learning, and correlations suggest that entrepreneurial strategies and adaptive ideologies enhance learning. Structural variables also have considerable explanatory power, and correlations suggest that formalized and complex structures retard learning but that learning is enhanced by structures that diffuse decision influence. Although slack variables explain little variance, the correlations imply that organizations investing slack in people and technology learned more than those investing it in capital reserves and control systems.

Leaders can exploit jolts by staging theatrical improvisations that celebrate and embellish ideologies. Memorial's administrators capitalized on the strike to present a sort of morality play dramatizing the hospital's commitment to employees and reaffirming the traditional values of stability and self-reliance. The no-layoff policy was promulgated melodramatically, and the administrators' benevolence was emulated by the physicians when they bolstered occupancy by defining surgical emergencies broadly. The entrepreneurial motif of Community's ideology inspired administrators to devise a strike scenario and script plausible responses; the motif was enhanced when members played their roles like seasoned troupers. The pride General's administrators felt in their corporate system's resilience was heralded rhetorically — through cavalier repartee ("what strike?") and deliberate understatement (it was an "everyday problem").

Jolts are also propitious opportunities for bootlegging incidental changes into organizations by camouflaging them as responses. Before the strike, many observers felt certain that bankruptcy was imminent at Pacific Hospital. The administrator gave the following account of the strike:

The malpractice crisis took us by surprise, and it caught us when our financial reserves were very low. We had been attempting to reduce the level of staffing for a long time, but union and employee resistance was too strong. By pushing us to the edge of the precipice, the strike provided the leverage we needed to cut costs. We discontinued some services and cut back others. When the strike ended, we rehired selectively, and our staff is now 10 percent smaller. We came out of the strike in far better shape than we went in.

When they are labeled as crises, jolts infuse organizations with energy, legitimize unorthodox acts, and destabilize power structures. Another hospital's board had long sought to replace the administrator. During the strike he was scapegoated, and shortly afterward he was purged. Symbolic attributions of actions to nonexistent environmental demands, however, can lead to superstitious learning (March and Olsen, 1976), and leaders who repeatedly wait for environmental jolts to institute major changes may monopolize learning and undermine the diagnostic and adaptive capabilities of their followers (Miles and Randolph, 1980).

Figure 2 advances a model of adaptations to environmental jolts that summarizes the preceding arguments. The model depicts adaptations as processes occurring in three sequential phases,

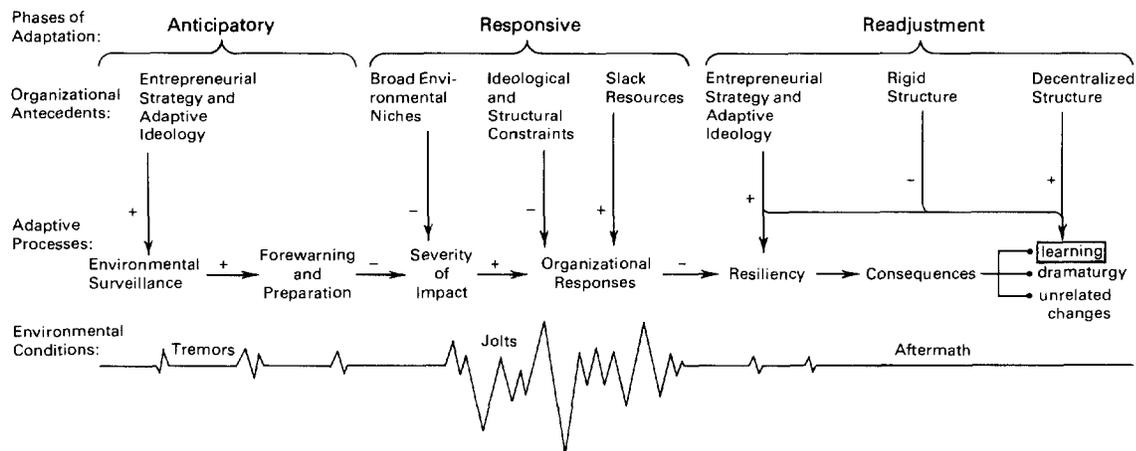


Figure 2. Antecedents, dynamics, and consequences of organizational adaptations to environmental jolts.

indicates organizational antecedents likely to be salient during each phase, and posits causal links between antecedents and adaptive processes.

DISCUSSION

Comparative research has so strongly emphasized objective measures of structures and resource measures of effectiveness as to imply that structures and amassed resources comprise the essence of organizations (Starbuck, 1982). But this study proposes that whereas ideologies and strategies exert strong forces guiding organizations' adaptations, structures and slack resources impose weak constraints. Qualitative analyses depicted adaptations as more consistent with social realities constructed through processes of ideological interpretation than with objective realities imposed by environmental events. Quantitative analyses implied that ideological and strategic variables were better predictors of organizational perceptions, responses, and consequences than structural variables and measures of organizational slack.

Several caveats are in order, however. This study was patently opportunistic and the variables might have been more precisely conceptualized and operationalized had it been designed expressly to investigate organizational adaptation. Moreover, the adaptations of 19 hospitals to a physicians' strike should be extrapolated cautiously to other organizations confronting other environmental changes. Environmental jolts are transitory blips that probably induce different organizational responses than foreseeable trends or irreversible shifts.

Hospitals inhabit highly institutionalized environments that may foster the construction of superficial structural facades. Meyer and Rowan (1977) argue that ceremonial structures harmonizing with societal ideologies attract resources and promote the survival of such organizations. But this study suggests that ceremonial structures may also promote survival and resource conservation by harmonizing with organizational ideologies. Consider how aptly Memorial Hospital's spartan structure symbolized the ideology of a lean and hungry organization, and how by ceremonially answering their own telephones, avoiding meetings, and shunning external contacts, Memorial's adminis-

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trators socialized new members and fostered self-selections that perpetuated efficient working styles.

Most researchers believe in studying organizations while they are stable and in seeking attributes that many organizations have in common (Starbuck and Nystrom, 1981). But this study demonstrates the value of observing organizations undergoing jolts that highlight the attributes that distinguish organizations from each other. Ideologies, values, traditions, and myths can accord dignity to mundane tasks and instill the élan that transforms work organizations into beloved institutions (Clark, 1972). Such attributes help organizations obtain comparative advantages by allowing them to develop more exquisite fits with ecological niches. But during tranquil periods these attributes can sink so deeply into the social fabric that they are invisible to the tools of survey research. They continue, however, to influence behavior unobtrusively and to perplex researchers expecting consonance between structure and behavior.

Most researchers presume that sudden environmental changes place organizations in jeopardy, and they show this by labeling the changes as crises, threats, or disasters (Starbuck, Greve, and Hedberg, 1978; Staw, Sandelands, and Dutton, 1981). But this study shows that sudden changes are ambiguous events that also benefit organizations. Scholars have exhorted organizations to experiment, be playful, and act randomly (Weick, 1969; March, 1976; Campbell, 1979). But hard-won success breeds resistance to change, and norms honoring consistency make administrative experiments risky. By plunging organizations into unfamiliar circumstances, jolts can legitimate unorthodox experiments that revitalize them, teach lessons that reacquaint them with their environments, and inspire dramas celebrating their ideologies.

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APPENDIX: Zero Order Correlations

| Independent Variables | Dependent Variables | | | | | |
|-------------------------------|---------------------|----------------|---------|--------------|------------|----------|
| | Forewarning | Occupancy lost | Layoffs | Revenue lost | Resiliency | Learning |
| Strategy | | | | | | |
| Innovativeness | .61* | -.15 | .19 | -.50* | .35 | .69* |
| Attention to environment | .39* | -.32 | .25 | -.64* | .21 | .49* |
| Boundary spanning | .36 | -.10 | .13 | -.61* | .22 | .25 |
| Scope of general services | -.11 | -.26 | -.14 | .06 | -.21 | .10 |
| Outpatient and longterm scope | .11 | -.53* | -.15 | -.43* | .35 | .48* |
| Medicare scope | .10 | -.28 | -.10 | -.48* | .61* | .31 |
| Structure | | | | | | |
| Size | -.11 | -.46* | -.22 | -.26 | .09 | .15 |
| Complexity | -.20 | .05 | -.03 | .04 | -.15 | -.34 |
| Job descriptions | -.45* | .33 | -.06 | .36 | -.45* | -.66* |
| Centralization | -.39* | .34 | -.17 | .68* | -.41* | -.59* |
| Specialization | -.15 | -.35 | -.31 | .10 | .38 | -.04 |
| Ideology | | | | | | |
| Importance of environment | .60* | -.10 | .45* | -.41* | .06 | .65* |
| Strategic reorientations | .32 | -.57* | -.18 | -.67* | .58* | .60* |
| Benefits from changes | .40* | -.37 | .38 | -.50* | .22 | .66* |
| Subordinates' capabilities | .10 | -.23 | -.33 | -.28 | .44* | .25 |
| Benefits from participation | .26 | -.29 | .04 | -.67* | .19 | .26 |
| Slack Resources | | | | | | |
| Financial | -.26 | -.02 | -.16 | .58* | -.28 | -.17 |
| Human | .06 | .27 | .50* | .23 | -.33 | .30 |
| Technology | .30 | .02 | .29 | -.19 | .05 | .45* |
| Control | -.35 | -.33 | -.49* | .16 | -.07 | -.36 |
| Dependent Variables | | | | | | |
| Forewarning | — | .29 | .62* | -.28 | .27 | .56* |
| Occupancy lost | | — | .59* | .48* | -.47* | -.14 |
| Layoffs | | | — | .08 | -.24 | .41* |
| Revenue lost | | | | — | -.52* | -.27 |
| Resiliency | | | | | — | .35 |
| Learning | | | | | | — |

*p < .05