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Technoeconomic and Structural Correlates of Organizational Culture: An Integrative Framework

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Abstract

An analytic framework which relates cultural variables to structural and technoeconomic factors, both inside and outside the organization, is derived from the methods employed by cultural anthropologists to generate a functional theory. The framework divides variables into two classes — social and organization, and along three different subsystems — technoeconomic, structural, and cultural. Useful in reconciling previously inconsistent or incompatible theories of organization, the framework is offered as a coordination device to integrate the results of divergent approaches to organizational culture studies.

Introduction

The topic of cultural contents and processes in organizations has recently received growing attention, both in the popular literature (e.g. Deal and Kennedy 1982; Peters and Waterman 1982) and the professional journals (e.g. *Administrative Science Quarterly*, September 1983). Since Pettigrew's (1979) call for the study of organizational cultures, the trickle of research in this area is turning into a veritable flood. While many valuable contributions are being made, most authors seem, as Jelinek et al. (1983) have said, 'to stress the internal, rather than to look to the external, societal, cultural context within which organizations are embedded'. Much of the literature to date is characterized by this narrow, internal focus. This appears to be an unfortunate development, insofar as cultural elements appear most easily understood in contrast to the contexts against which they appear. After an appraisal of the recent literature, an integrative framework is proposed, not to attempt a premature synthesis of existing, tentative findings, but rather to provide a basis from which future theories may be generated and compared. Implicit relationships with several conceptual traditions in organization theory will be explored to further accentuate the relevance of the framework to studies of organizational culture. Finally, some speculations on the interrelationship between culture and other subsystems, i.e. technoeconomics and social structure, will be examined within the context of control.

Recent Literature

The study of culture in organizations appears amenable to a variety of

theoretical approaches. Smircich (1983) reviewed the literature and classified the ways the concept of culture is used by organizational researchers, relating them to five general approaches from anthropology. Two such approaches treat culture as a variable, the remaining three as a metaphor. The distinction is crucial. While the anthropological literature is replete with terms that can be applied to organizations metaphorically, thus refining our sensibilities and enhancing our sensitivity to the richness of organizational life, the terms themselves are in fact theoretical constructs that can be put to valuable use in modelling and explaining the behaviour of social systems, as we shall attempt to show.

Smircich's (1983) review is illustrative of the enthusiastic and often problematic way in which culture, as topic and as concept, has been embraced by organizational theorists as a group. As the following comments will hopefully make clear, both the topic of organizational culture and its conceptual elaboration have been subject to no small amount of confusion. First, there appears to be little consensus at the present time as to what the term 'culture' signifies or implies, in an organizational setting anyway. Second, this lack of clarity, in part, has been generated by the confusion of the *topic* of cultural studies with a proliferation of qualitative methodologies and alternative epistemologies. Because 'culture' is not yet manifestly amenable to rigorous quantification, advocates of *qualitative* approaches to organizations have understandably attempted to equate the topic itself with their cause. The result has been a blurring of the distinction between method and subject, paradigm and phenomenon, metaphor and variable.

A glaring example of this problem is found in theorizing about 'organizational symbolism'.

Recently, various authors have grouped cultural contents and processes under the rubric of 'symbolism' (Pfeffer 1981; Dandridge et al. 1980, and others). If the symbolic nature of activity becomes the focus of analysis, the interpretation of the word 'symbolic' is highly problematic. Symbolic association is not necessarily a convergent phenomenon; the researcher must arbitrarily decide at what point to terminate, and ascribe a substantive nature to that which is being symbolized. Thus Pfeffer's distinction between symbolic and substantive activities of managers is potentially illuminating, but the delineation of boundaries between the two is ultimately subjective. Dandridge et al. (1980) have provided a useful typology of culture processes, but its use is limited to those who share their functional assumptions (symbols are descriptive, energy-controlling, or system-maintaining) about these processes. Trice and Beyer (1983) have studied the manifest and latent functions of ceremonies, with the view that such events serve to display an integration of cultural processes in an organization, and may thus prove a leverage point to study culture economically. Such an approach may be problematic, however, in that the importance of ceremonies may ultimately vary across organizations, if such importance itself is culturally modified.

In attempting to define culture some researchers have adopted the assumption of a unitary culture, i.e. that single organizations develop a culture of their own that is distinct from the regional or national context in which the organization is embedded. One hypothesis that has been generated on the basis of this assumption is that organizations with 'strong' cultures are able to perform better, due to the greater participation and commitment evoked from organizational members and the greater integration that a 'strong' culture purportedly provides (Pfeffer 1981; Deal and Kennedy 1982). A pitfall lies in attempting to assess culture along any one quantitative continuum, since a number of dimensions might be involved. For example, the clarity of norms, or their intensity, might provide such a metric, or perhaps the degree of perceptual agreement (Pennings and Van Wijk 1985). Along other lines, one might argue that the variable of interest is the extent to which cultural processes are differentiated within the organization, such that members adopt and manifest forms of behaviour unique to their organizational context. The question here is one of comparison: along what aspects of the cultural surround are the organization's cultural patterns being differentiated? Is the cultural surround composed of similar organizations, or is it geographically defined? The process of cultural differentiation might conceivably be investigated with the single organization as the limit of analysis, but the arguments for doing so work equally well for other levels of analysis, immediately above and below the organization level. Martin et al. (1983) have demonstrated that certain cultural items (in this case, stories) considered unique to the organization by its members are in fact shared by several organizations — the illusion of uniqueness is, in fact, paradoxically crucial to their impact. The differentiation problem appears thorny, insofar as cultural elements need only *appear* unique to organizational members to function as though they actually are unique.

Louis (1983), among other authors, has questioned the assumption of unitary cultures, proposing instead that organizations be studied as 'culture-bearing milieux'. Cultures, according to Louis, can be seen as emergent at both the organizational and sub-unit level. Such culture-creating processes are visibly at work in recently-founded organizations, and revitalization may be fostered in mature or stagnating ones. Changes in setting can disrupt or support cultures, or foster new developments. Louis argues that cultural elaboration is not equally potential in all settings; a contingency approach to cultural emergence is required. An additional problem is posed by the possibility of nested (cultural groupings embedded within, but not universal to, an organization) and overlapping cultures (groupings that laterally span boundaries across organizations, e.g. occupational cultures).

It is our contention that a top-down approach in terms of levels of analysis, e.g. an analysis of industrial and occupational patterns of culture and their interaction within the organization, will prove to be a viable approach. If, as Pfeffer (1981) alleges, organizational systems of meaning and belief do not develop or operate in vacuums but rather arise in response to demands from and competition with elements of their environments, it is crucial that future

research should avoid conceptual approaches that are too limiting (i.e. restricted to one of a few items of culture), too internal, and too static.

Cultural variables must be treated in a holistic sense, i.e. with a concern for examining all facets in a complementary, integral configuration. This examination must not be confined to the descriptive, however; a strong need seems to have arisen for a framework within which cultural variables may be related to the structural, technical, and economic variables, both internal and external to the organization, that have served as the foci of past attempts to analyse the behaviour of organizations. These variables are the determinants, or conceivably the results of determination, of cultural processes in the organization as a whole.

Only by the creation of such a framework can the study of organizational cultures be situated within the stream of organizational theorizing as it has developed over recent decades. The various approaches developed by theorists in their consideration of the structural and technoeconomic aspect of organizations have provided a good foundation for future studies of organizational culture; such studies, conversely, can serve to amplify and enhance, rather than supplant, previous findings.

Such a framework may be best developed through attention to the modes (as opposed to models) of analysis that have served cultural anthropologists for some time. A look at the themes which underlie the generation of anthropological theory serves to provide a basis upon which to erect an integrative framework for the study of culture in organizations.

Anthropological Approaches

It has become almost a cliché to assert that there are almost as many definitions of culture as there are anthropologists to offer them. In a recent review of the anthropological and organizational literature, Allaire and Firsirotu (1984) provided some needed conceptual clarity through a categorization and description of the various schools of anthropological theorizing and their implicit and/or explicit correlates in organizational theory. While this review is an excellent illustration of the wealth and multiplicity of approaches to culture in both fields, we have found it useful to organize the contributions of anthropologists to the study of culture not so much by the models they have advanced as by the 'modes' of theorizing that are involved. Illumination can be provided, we feel, by an examination of the *process* by which anthropologists generate models and causal theories about culture.

Kaplan and Manners (1972) have made an excellent attempt to bring order to this process by employing a systems metaphor:.

In attempting to explain both the form taken by institutions in different societal settings, and the way in which they relate to each other in the total structure of a given society, anthropologists have found it necessary to move beyond the concepts of status, role, and institution to an even higher level of abstraction — a level at which institutions are

placed, for purposes of explanation, in certain analytic contexts called *subsystems*. The major subsystems . . . are *ideology, social structure, technoeconomics*, and *personality* . . . (p. 89).

Anthropologists, then, organize variables into these sets of families (which represent analytic abstractions or organization), with the recognition that the activities of any institution and institutional order are likely to cross-cut all subsystems. Causal theories in anthropology are erected by assigning relative weights to the variables of each subsystem, though most theories include reference to the contributory impact of one or more of the remaining subsystems. What follows is a description of three of the four subsystems and the genus of causal theorizing that generally emerges from assigning primary weight to them; the fourth, personality, is more germane to the field of organizational behaviour rather than to organization theory. We shall treat each subsystem separately. keeping in mind the qualification that 'in reality variables of each subsystem are often interwoven; subsystem boundaries are often not clearly delineated.

Technoeconomics: The technoeconomic subsystem (variously called techno-logy or infrastructure) includes the machines and tools employed by a society as well as the way they are organized for use, and the scientific knowledge that makes them both possible and usable. Basically, this is the material realm of any society, and includes both what Marx called 'the mode' and 'the means' of production. Theorists who give the greater causal weight to the technoeconomic subsystem are generally materialists, in that they see the components of other subsystems as being epiphenomenal, i.e. changes in the technoeconomics of a society induce changes in the other subsystems, but not vice versa. Perhaps the hardest deterministic stance has been offered by Harris (1980), who proposes the reclassification of all non-etic (i.e. non-behavioural) phenomena into the ideological subsystem, with by far the greatest causal weight assigned to etic variables from the technoeconomic subsystem (which he calls the *infra structure*). A softener determinism is proposed by the cultural ecologists (e.g. Kaplan and Manners 1972, and others), who concern themselves with how the effective environment of a given society shapes, and is in turn shaped by core (as opposed to peripheral) elements of the three subsystems. Because technoeconomic theories lend themselves more easily to substantiation or refutation than others, technoeconomic determinists have argued (Harris most forcefully) that these theories provide a more fecund research strategy. While this point has been the subject of much debate, there seems to be a consensus that at the very least the technoeconomic subsystem sets limits to the variation displayed by other subsystems and structural arrangements. It is the relative width or narrowness of these limits that is the crux of argument.

Social Structure: Social structure is the system by which relatively enduring social relationships are ordered, and the relative distribution of human input

and outputs to a social system are assigned. This subsystem embraces concepts such as role and status sets with their constituent aspects of horizontal and vertical differentiation. Social-structural theorists also range from hard to soft deterministic stances, with the harder ones viewing the variables of other subsystems largely as epiphenomena of patterns of institutionalized social interaction. Attempts to explain other variables as aspects of role relationships and behaviour, however, often lead circuitously to explanations of the latter with reference to variables of the other subsystems.

Attempts in organization theory to explain social structure in terms of the technoeconomic subsystem are well known within the traditions of structual contingency theory (e.g. Thompson 1967; Galbraith 1977) and population ecology (e.g. Hannan and Freeman 1977). Social functional groupings, centralization and formalization represent attributes which are hypothesized to vary in relation to the attributes of the technoeconomic subsystem. For example, in structural contingency theory, vertical differentiation of positions in influence or power is viewed as contributing to the system's ability to deal with technoeconomic contingencies — the more decentralized, the greater the potential to cope with environmental or technological complexities.

Within organization theory, social structure has had a rather unambiguous meaning referring mostly to a configuration of social positions and their interrelationships. The term structure, however, has acquired a great deal of ambiguity, not only because of the infusion of anthropological ideas but also because of an increased popularity of interpretive sociology. In anthropology, 'structuralism' is a major school of thought, but its reference has little in common with traditional notions of social structure as exemplified by Blau (1974). Rather, structuralism refers to a theory or a method about the 'deep' configuration of bipolar opposites which make up the structure of an ideology, a myth or a system of beliefs. By examining the configuration of fundamental opposites such as good–bad, life–death, male–female, it is possible to provide a more substantive description of anthropological data — for example to account for religious beliefs, myths and rituals as a cognitive ordering of the reality by a community of individuals. Interpretive sociology, made popular by authors such as Berger and Luckmann (1967) has also added new meanings to the term social structure by defining it as a collective, shared view of reality. While a full review of the current debate (e.g. Burrell and Morgan 1979) is not possible in the present context, it is preferable to relegate myths, systems of beliefs and ideology to the realm of culture and to limit notion of structure to a system of positions and their interrelationships. Empirical access to such systems can be accomplished through archival data (e.g. Blau 1974) or by means of survey research, i.e. structure might be either 'objective' or 'subjective', 'emic' or 'etic' (compare Harris 1980).

Ideology or Culture: The third subsystem includes values, norms, 'know-ledge', philosophies, religious beliefs, sentiments, ethical principles, symbols, myths etc. and is the locus of that family of variables designated by the term

'culture', when it is not extended to embrace the entire social system. In other words, the present framework adopts a 'narrow' definition of culture.
There are extraordinarily broad views of organizational culture, which include in the concept the social structure (possibly viewed in emic terms such as in the social construction of reality sense) as well as a system of symbols, values and ideas that somehow 'float' on that social reality. Between broad and narrow views there is a large array of definitions. This includes a 'shared worldview' as embodied by symbols, sagas, myths and language.

Because the nature of cultural variables is inherently subjective, and because they must generally be inferred from behaviour, the deterministic weight to be assigned to cultural factors is highly problematic. In assessing, for instance, the extent to which values determine behaviour, the best evidence for what values exist often lies in norms. But the existence of a norm is usually evidenced by regularities of behaviour, and hence the whole explanation becomes tautological and redundant. Generally, theorists tend to agree that the extent to which cultural elements determine changes in other subsystems is conditioned by the extent to which the social actors involved have internalized their culture; various frameworks for assessing the extent of this internalization have been proposed.
Many theorists feel, however, that the cultural subsystem contains those variables that best predict how social actors order perception and direct behaviour. Geertz (1973), for example, refers to culture as:

> . . . a set of control mechanisms — plans, recipes, rules, instructions (what computer engineers call 'programs') — for the governing of behaviour. (p. 44)

In summary, then, it is the generic approach of anthropologists to their subject matter rather than particular definitions of, or perspectives on, culture that constitutes a fertile field for applications of cultural anthropology into the discipline of organization theory. The holistic and comparative method that has historically been the principal strength of anthropological inquiry is based upon the separation of variables into appropriate subsystems. Theorizing stems from the assignment of relative causal weights to each subsystem, with the recognition that the strict separation of subsystem variables is a conceptual device rather than an empirical reality.
The following section presents a framework for examining organizations and their cultural elements that grows out of our agreement with the body of anthropological opinion that culture can never be satisfactorily researched simply by reference to itself. It is only through reference to other subsystem variables that the meaning of cultural phenomena may be defined.

An Integrative Framework

The tripartite schema of societies (and/or industries or 'organization sets') as

linked subsystems can be easily adapted to existing 'open systems' models of organizations (Katz and Kahn 1966) with the recognition that organizations, as emergent 'mini-societies', operate within the larger social environment. Thus, we might envision the sets of variables salient to any given organization as being grouped into six subsystems, with the tripartite schema iterated twice — both on the organizational level and the societal or industrial level which comprises the organization's environment.

By way of illustration, we can describe technoeconomics in internal terms as the organization's plant and equipment, distribution network, and sales and service system. This may be called its task environment. There is also an external technoeconomic subsystem — for example the competing organizations, the cartels and other market arrangements they form, together with the network of suppliers and customers with which they intersect. This may be called market, industry or ecosystem. Hirsch (1975) was one of the first organization theorists to point out that we ought to be aware of these levels of 'environment': the organization theorist often has to move from the organization level to the next higher level of analysis (e.g. market) to fully account for the intra-organizational structure and process. Likewise, examples can be given of the internal and external structural and cultural subsystems. Thus the oligopoly of German commercial banks or United States investment banks may each have their own unique set of values, beliefs, symbols and ceremonies, but there may also be a culture at the oligopoly level. The community or population of organizations is highly similar culturally and all member organizations share certain cultural elements. Linkages between their cultural subsystems are presumed to exist.

Naturally, considerable complication of the pathways of causal flow and feedback result. To the horizontal linkages between subsystems on the societal level (the nature of which generates considerable debate among anthropologists), are now added a second set of linkages at the organizational subsystems and the larger social subsystems levels from which they are derived and which they, in part, both comprise and help to shape. Visual clarification of the model is provided by a 2 × 3 matrix, with flows and feedbacks moving horizontally, vertically and diagonally:

Figure 1
Relationships between
Six Subsystems
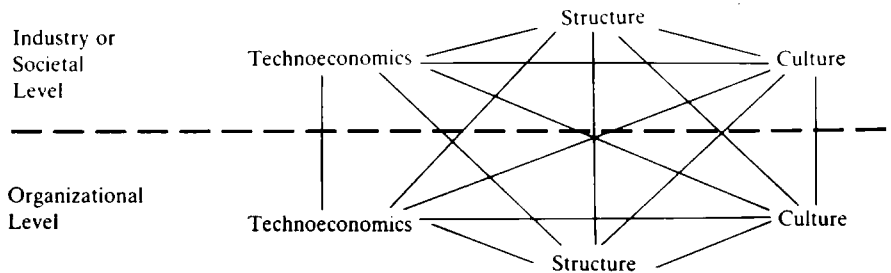
The notion of 'linkage strength' is central to the explanatory power of this

framework. It is to be taken as axiomatic that since organizations differ with respect to which part of the environment they are linked, the relative causal weight assigned to each subsystem on both levels varies with each organization. Organizations also differ with regard to the salience of subsystemic variables, both internally and externally. Involvement with one or another of the subsystems might be predominant for adaptive purposes, as the expense of other subsystems. Thus, the relative strength of both vertical, diagonal and horizonal linkages is taken axiomatically to be situationally conditioned, both over organization and over time.

Brief examples are unavoidably simplistic in illustrating these issues, but may help in giving them more vivid meaning. One could argue, for example, that organizations with detailed job descriptions, and an elaborate information and control system might have acquired such structural characteristics in relation to a mature technology and well-established stable product. Such 'defender' type organizations are indeed more likely to have a mechanistic structure. If there is a major shift in the market of such organizations, they are doomed to modify their posture toward the task environment, or to adopt a more decentralized, less formal or organic structure or to do both. The prevailing culture should undergo a concomitant metamorphosis, but may lag behind, in which case a lack of fit or incongruence could obtain. In such cases, a weak linkage between the cultural subsystem and the remaining ones is discernable. A well known and highly publicized case involves the American Telegraph and Telephone Company. This organization enjoyed a regulated monopoly, but after a period of increased deregulation it began to face stiff competition. To cope with new marketing challenges, the firm replaced the centralized functional structure for a decentralized, profit – centre – based divisional structure. Relations with residential and business customers changed drastically. However, its 'service' culture lagged behind and remained largely disjointed from the technoeconomics and structure. This disjointedness persisted, even after the organization had attracted senior marketing executives from firms such as IBM which are believed to have a 'marketing' culture, with the expectation that they would infuse the organization with a different set of beliefs and values.

Other organizations might have a strong culture, but may display only a weak horizontal linkage with structure or technoeconomics; however, there may be a tight link with the external cultural subsystem. This appears to be the case among some United States investment banks who reveal an exceptional homogeneity in values and norms regarding style, dress code, work ethic and customer orientation. Somehow each firm mirrors the other firms; close ties exist between them, accentuated by flows of personnel and syndication of the sale and distribution of securities. The congruence, thus inferred, has adaptive value.

We question, however, the meta-assumption that congruence between the subsystems of an organization is universally desirable. The *degree of congruence* certainly is a variable of interest, and it is likely that levels of desirable congruence vary, depending on situational context. Further,

congruence between any two subsystems might preclude congruence with a third; if trade-offs are involved, the marginal utility of congruence might be an item of interest.

Congruence can be assumed to exist if there is a high correlation between the relevant attributes, subject to the condition that high levels of effectiveness prevail. Therefore, congruence can be determined from the magnitude of correlation betwen relevant attributes among those organizations that are high performing. For an organization to be effective, there has to be, for example, a goodness of fit between centralization, product maturity or formality of culture. Organizations may have a scope of choice, i.e. they have a certain latitude in adopting a certain degree of centralization, choice of markets or strength of culture, provided they stay within the bounds set by effectiveness considerations. Congruence or goodness of fit can be inferred from the empirical association between relevant attributes of those organizations that are known to be effective. In the tradition of structural contingency theory the congruence between structural and environmental dimensions has, of course, been a central tenet, but that congruence notion has not yet been extended to be applicable to other subsystems as well. Since organizations are multi-dimensional with respect to three subsystems, certain trade-offs in optimal congruence are inevitable.

Culture and its correlates might thus be viewed in more operational terms. The six elements can be construed as blocks or families of variables. The rationale for grouping them in this way is partially inspired by the subsystem partitioning which is widely shared in certain branches of sociology and anthropology; for example, position and role, structure and culture are rather naturally occurring categories in the social sciences (compare Dahrendorf 1964). It is also based on the assumption that variables within each block change at approximately the same rate and at the same time. For example, technological changes tend to be mutually reinforcing or have immediate repercussions on each other. Structural changes also have a tendency to occur in tandem; shifts in decentralization tend to covary with changes in formalization. It is possible to think in terms of block models where the interrelationships of variables within blocks are conceived in their own right while relationships between blocks represent another phenomenon also to be understood in its own right. In this paper we focus on the relationships between blocks and are less concerned with covariance or divergence of variables within each block. We are concerned with the degree of congruence between the blocks as opposed to congruence within the blocks.

Nevertheless, it is of interest to recognize that blocks of variables inter-relate by virtue of their component variables. The different variables within a block may differ in how much weight they carry vis-à-vis other blocks of variables. For example, changes in organization design from a functional to a divisional structure might influence the amount of consensus about certain values, but a similar hypothesis could be advanced about reductions in the number of authority levels or decline of the administrative component. These

different structural variables can be depicted as the nodes in a network that encompass the six blocks. Furthermore, wuch a representation can be cast in both synchronic and diachronic terms (compare Aillaire and Firsirota 1984).

The linkages are taken axiomatically and assumptions about the congruence await further research on the respective trade-offs — for example how many 'units' of cultural strength equal 'units' of centralization of vertical differentiation. Or, to use another example, how much internal labour-market control can be substituted for by external labour-market control, and vice versa (Stinchcombe 1959; Pfeffer and Cohen 1984). Indeed if we expand Geertz's (1973) notion of culture as a set of control mechanisms by treating the six subsystems as six sets of control mechanisms, we can envisage a multitude of control mechanisms which intersect, even interfere with each other. The equifinality of its outcomes renders such a conceptualization very complex, but it also presents interesting research hypotheses.

The issue that external controls exist and affect organizational behaviour is not new — it is central, in fact, to the idea of structural contingency theory, market failure theory and population ecology. Many conceptualizations have an internal bias, i.e. the internal agents have to arrange and to negotiate a relationship with the external subsystems such that external interference or external dependence is contained. It would be most interesting to soften such an internal bias and to explore control pressures as they exist between the six subsystems. Explicit recognition of this issue has already appeared in the literature on control as illustrated in the work of Vancil (1979), who discusses the dual responsibility of a profit manager whose life unfolds into two separate tempos. On the one hand he is to act more or less automatically in adapting his products to meet the needs of his customers —in short, a tempo that beats according to the rhythm of the market. The second tempo, internally originated, beats the 'rhythm of the corporate evolution of leadership, strategy and structure'. The two rhythms intersect in part, in the position of the profit-centre manager of a large multi-divisional corporation. Agency theory (Fama and Jensen 1983) is one approach which could spell out the way different controls intersect and how organizations might 'design' (or choose) themselves and their environment in optimally selecting a configuration of linkages. While Vancil (1979) deals primarily with control at the internal structure (e.g. planning and feedback systems) and the external technoeconomic levels (e.g. actions of competing organizations) such dual control pressures can easily be extended to include other subsystems as well. Interesting research opportunities present themselves here and can draw the investigation of culture into the core of organizational behaviour.

It is therefore our contention that no subsystem, or partial set of variables from within it, can be explained without reference to the other subsystems and the linkages between all of them. Anthropologists have often had the luxury of studying relatively well-defined, socially isolated communities whose culture was minimally 'contaminated' by extraneous influences. But the apparent

social isolation of anthropological units of studies is increasingly becoming regarded as illusory (c.f. Geertz 1973; Harris 1980). Organizational researchers are even more aware of the problematic definitions of organizational boundaries, and if such boundaries are difficult to define for the structural subsystem, ideational discontinuities might be even more difficult to map. However, given that the presence, absence, or degree of such discontinuities is not only an important item of interest in itself, but may, together with technoeconomic factors and shifts in environmental variables, explain much of the form and variance of organizational structures, inherent difficulty should provide no barrier to committed research.

Complimentary Perspectives of the Present Framework

The strength of this framework is evidenced by the fact that hitherto competing or inconsistent perspectives on organizations, and organizational cultures in particular, can be viewed as documenting its constituent elements. In addition, it serves to integrate past research and illuminate directions that future research may take. Several examples may be cited to demonstrate this. What certain researchers (Pfeffer 1981, among others) have identified as 'strong' organizational cultures are organizations with a *strongly differentiated culture*, in which *horizontal linkages* at the organizational level are strong, and *vertical linkages* along the cultural pole are relatively weaker. This is characteristic of the 'Type Z' organization, as described by Ouchi and Jaeger (1978), but not the 'Type J' organization (since high organizational affiliation is a cultural phenomenon common to Japanese society, and not differentiated within particular Japanese organizations).

Weick's (1979) concept of loosely-coupled organizations documents a system state in which horizontal linkages are weak and subsystems internally fragmented. The population ecologists' notion (Hannan and Freeman 1977) of competitive isomorphism can be conceived of as evidence for the possibility of strong vertical linkages along the technoeconomic pole, combined with strong horizontal linkages. The isomorphism can pertain to both organizations and populations of organizations (Pennings 1980). Meyer and Rowan's (1977) concept of institutional isomorphism is not mutually exclusive, since it implies documentation of specific cases where vertical linkages are strong along the structural pole, with looser horizontal linkages and subsystem fragmentation at the organizational level. DiMaggio and Powell's (1983) elaboration of the institutional isomorphism into normative, mimetic, and coercive isomorphism can be viewed as a descriptive elaboration of the mechanisms by which these systems states occur.

The deficiencies of contingency theory (Pennings 1975) can in some way be redeemed through the application of this framework. As earlier comments have implied, organizations have at their disposal a menu of control mechanisms (in Geertz's, 1973, sense), as well as the more explicit ordering

mechanisms observable in organizational structures. Organizations thus choose from a set of menu combinations that together comprise a fairly large set of control-utility contours. Recent developments (e.g. Pennings 1985; Van de Ven and Drazin 1985) clearly indicate how contingency theory can provide normative pronouncements for organization design given a set of empirically derived menu combinations. The variety of possible 'meals', given the variability of managerial discretion, is either wide-ranging or narrow, depending on past and present states of the six subsystems and the linkages between them. For example, some organizations face higher market exit barriers than do other ones; some appear more resistant to structural change; others face a higher amount of cultural inertia, etc. As was stated before, the notion of congruence also implies the presence of effectiveness induced limits on organizations to change the horizontal and vertical linkages.

The notion of 'nested' and/or 'overlapping' cultures in Louis' (1983) article on organizations as 'culture-bearing milieux' can be understood within the framework as elaboration of the concept of subsystem fragmentation, with strong horizontal linkages (a nested culture), strong vertical linkages (overlapping) or both (a nested, overlapping culture, e.g. an R&D unit within a manufacturing organization, insulated from the company but highly affiliated with external professional groups). In other words, culture-derived control may be endogenous, exogenous or a combination of both. It can be enhanced or reduced by control associated with the other subsystems. Organizations may deliberately opt for stressing some culture-derived controls as oposed to others depending on the trade-offs, and on the discretionary latitude and strategic preferences of their decision-makers.

Organizations presumably attempt to reach an 'efficient frontier', i.e. to find some optimum intersection of internal and external control pressures, but do not always succeed.

It may be useful to quote Luhmann (1976) who mentions the *strategic* relevance of the concept of dual contingency, where each contingency is functionally equivalent. In other words, organizations enjoy a certain scope of choice in selecting a particular menu of control mechanisms. The concept 'strategic choice' (Child 1972) also has the merit of depicting the space of free movement which organizations enjoy, but it extends to contextual contingencies as well. Organizations cannot only choose a technoeconomic subsystem, with a concomitant structure and culture, but they also enjoy discretion in choosing or shaping their context. The identification of this scope of choice is a major challenge, but could integrate the research on the three subsystems and the way they interrelate. The scope of choice is problematic. The dilemma of agency theory (Fama and Jensen 1983) where the principal and his agent are asymmetrically informed, such that control of the latter by the former is limited, is one approach. Institutionalization theory (Meyer and Rowan 1977) likewise focuses on the asymmetry between two actors — for example some external constituency and the degree of organizational compliance with its normative pressures. The precarious status of structure as a control device is

accentuated by its symbolic value which is frequently uncoupled from the technoeconomic subsystem. In fact, it is the relative degree of uncoupling between the three subsystems in relation to the external environment which gave new impetus to institutionalization theory as articulated by Selznick (1957).

The side benefit of infusing the framework with a strategic relevance also helps in shifting the focus from organizations as systems (or clocks, computers, texts — Morgan 1980) to organizations which fit an action perspective. The action perspective rarely emerges in the anthropological literature. Organizations revolve around various interest groups which vie for power, seek to protect their interests and quite obviously this leads to a question such as how the management of an organization manages the political processes which preserve or alter the status quo. There are six sets of levers which can be pulled to maintain or alter the control in a particular direction. Internal and external interest groups are pulling the organization in various directions. The increased saliency of an organization's context suggedsts that external constituencies are increasingly important in shaping the destiny of an organization. The distinct aspect of organizational culture research can add a further value by revealing how cultural elements can enhance or impede organizational control and, by implication, organizational efficiency, effectiveness and innovativeness. It would ultimately be the effectiveness-imposed constraints which define the scope of choice for internal and external constituencies to agree on a status quo (Pennings 1985). Those constituencies intersect in the so-called 'dominant coalition'. It is this dominant coalition which is involved in a play to pull the six sets of levers as diagrammed in Figure 1. Thus we should not view that diagram as a classification of control devices, or as a sixfold typology of control sources, but rather as functionally equivalent control options. It is for this reason that the metaphor of menu or efficient frontier is useful for tying together the six sets of control options and, by implication, for providing a heuristic for integrating various literatures on organization theory. This is particularly evident when 'culture' gets contrasted with 'strategy'.

The concept of organization strategy might easily be incorporated into the present framework. Strategy has acquired several meanings in the literature. They include economic definitions such as marketing focus in terms of price, quality and other product or service attributes (e.g. Porter 1980; Rumelt 1974). They include also cognitive and ideational views; for example strategy as a social construction of a firm's behaviour, or as retroactive justification of a firm's actions (e.g. March and Olsen 1976; Hall and Saias 1980).

Strategy as an ideational phenomenon can be considered as part of culture; as environmental focus it is part of the technoeconomic subsystem. The proposed framework can therefore accommodate both definitions and allow us to treat strategy as being constrained by culture and as a constraining factor for culture. For example, an organization might modify its technological core or its marketing focus, provided it remains congruent with its culture. Likewise, its management might consider a strategic 'turnaround', which will alter the

shared beliefs of its employees about the identity of the firm. Among the inertial forces that it will face are not only other elements of the culture (e.g. the old value system of people's 'scripts' about their organization's actions and intentions). Inertia obtains also from the current technical core, to use Thompson's (1967) well-known term, as well as the markets in which it is entrenched, the supplying and buying persons and organizations to which it has committed itself and so on. Market exit-barriers might be seen as a signalling inertial force against attempts to modify the organization's culture, including the shared views that comprise the cognitive or ideational strategy.

The framework suggests that we should move away from the dual thinking that has dominated the literature on organizational strategy, structure and culture. Thus we should discontinue the thinking of strategy and structure (e.g. Chandler 1962), structure and technology (e.g. Thompson 1967), structure and market (e.g. Galbraith 1977), internal versus external structure (DiMaggio and Powell 1983), as well as structure and culture or 'organizational climate' (e.g. Gordon 1983). The notion of multiple contingencies also implies that we should refrain from duality assumptions about culture and organizational effectiveness (e.g. Gordon 1983). It is more appropriate to state that the dual, multiple contingencies are constrained by effectiveness considerations. For example in a stable market, with a well-understood technology, a firm having a centralized decision structure might be more effective if its culture emphasizes values of coordination, lack of delegation and avoidance of conflict expression. In a dynamic, volatile market with a high degree of competition as in the small computer industry, successful firms are more likely to have a decentralized structure and a culture that stresses risk-taking, venturesomeness, clarity of performance expectations and performance-related compensation (Gordon 1983). Identifying which combinations of cultural, structural and technoeconomic variables combine to ensure higher performance levels can probably be best understood in a longitudinal context.

Contrasting the concepts of strategy and culture has the additional advantage of accentuating the features of the present framework with its emphasis on six subsystems, the mutual contingencies between them and the strategic relevance of these contingencies. The mutual causality between the subsystems suggest that 'tinkering' with any one of them has repercussions on the remaining ones. Thus cultural changes, cultural interventions or even 'cultural revolutions' cannot be undertaken in their own right but have to be initiated (and investigated) in conjunction with concurrent or delayed transformations in the other subsystems. This latter observation states in a different way the essence of the proposed framework.

Conclusion

An integrative framework that places the problem of organizational culture studies within a larger context has been suggested. It is hoped that the

framework might be used to initiate explorations of the modern work organization as a cultural form. We have attempted to stress that the cultural contents of organizations are not only intrinsically interesting in and of themselves, but must be related to the broader context with which they are associated, not only internal to the organization, but external as well. It may well be discovered that, in certain cases, patterns of culture are operative at a higher level (e.g. the intraorganizational or industry level) than at the unit of the single organization. Or perhaps the growing professionalization of organizations and the various 'nests' of overlapping cultures, may prove a fertile field for cultural enquiries. The rapid emergence of multinational corporations has increasingly led to cultural forms that may be peculiar to one organization or one group of organizations, but may cut across national boundaries. In terms of the framework, the relative strength of both vertical and horizontal linkages must be assessed in any research situation.

The difficulty, as well as the challenge, now confronting research is that a variety of methodological approaches will be required, both nomethetic and idiographic. One virtue of the framework, it is to be hoped, will be that it can be used as a translation device for coordinating the results of the divergent approaches. While we are intrigued by certain functional assumptions regarding culture (e.g. the metaphor of a 'menu of control mechanisms' that may conceivably imply an 'efficient frontier'), use of the framework is not confined to those who share our axiomatic predispositions, nor to those with any particular methodological preference.

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