Paradigms, Metaphors, and Puzzle Solving in Organization Theory

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The purpose of this paper is to present the elements of a radical humanist critique which suggests that the discipline of organization theory has been imprisoned by its metaphors, and to stimulate an awareness through which it can begin to set itself free.

The paper explores the relationship among paradigms, metaphors, and puzzle solving showing how organization theory and research is constructed upon a network of assumptions that are taken-for-granted. The metaphorical nature of theory and the implications of metaphor for theory construction are examined. A theoretical and methodological pluralism which allows the development of new perspectives for organizational analysis is suggested. While orthodoxy is based upon a few metaphors characteristic of the functionalist paradigm, metaphors characteristic of other paradigms, which challenge the ground assumptions of orthodoxy, are shown to have much to offer.•

> For the son of a peasant who has grown up within the narrow confines of his village and spends his whole life in the place of his birth, the mode of thinking and speaking characteristic of that village is something that he takes entirely for granted. But for the country lad who goes to the city and adapts himself gradually to city life, the rural mode of living and thinking ceases to be something to be taken-for-granted. He has won a certain detachment from it, and he distinguishes now, perhaps quite consciously, between "rural" and "urban" modes of thought and ideas. In this distinction lie the first beginnings of that approach which the sociology of knowledge seeks to develop in full detail. That which within a given group is accepted as absolute appears to the outsider conditioned by the group situation and recognized as partial (in this case, as "rural"). This type of knowledge presupposes a more detached perspective. (Mannheim, 1936)

Mannheim uses this example of the urbanization of a peasant boy as a means of illustrating how ways of thinking about the world are mediated by social milieu, and how the acquisition of new ways of thinking depends upon a departure from the old world view. The example is a convenient starting point for an analysis of organization theory, which seeks to examine both how organization theorists attempt to understand their subject of study and how they may begin to attain a measure of detachment from orthodox ways of viewing it. Organization theorists, like scientists from other disciplines, often approach their subject from a frame of reference based upon assumptions that are taken-for-granted. To the extent that these assumptions are continually affirmed and reinforced by fellow scientists, and others with whom the organization theorist interacts, they may remain not only unquestioned, but also beyond conscious awareness. In this way the orthodox world view may come to assume a status as real, routine, and taken-for-granted as the world view of Mannheim's peasant boy who stayed at home. The partial and self-sustaining nature of the orthodoxy only becomes apparent to the extent that the theorist exposes basic assumptions to the challenge of alternative ways of seeing and begins to appreciate these alternatives in their own terms.

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PARADIGMS, METAPHORS, AND PUZZLE SOLVING

In order to understand the nature of orthodoxy in organization theory, it is necessary to understand the relationship between specific modes of theorizing and research and the world views that they reflect. It is useful to start with the concept of paradigm made popular by Kuhn (1962), although the concept has been subjected to a wide and confusing range of interpretation (Morgan, 1979). This is partly because Kuhn himself used the paradigm concept in not less than twenty-one different ways (Masterman, 1970), consistent with three broad senses of the term: (1) as a complete view of reality, or way of seeing; (2) as relating to the social organization of science in terms of schools of thought connected with particular kinds of scientific achievements, and (3) as relating to the concrete use of specific kinds of tools and texts for the process of scientific puzzle solving (Figure 1).

Probably one of the most important implications of Kuhn's work stems from the identification of paradigms as alternative realities and indiscriminate use of the paradigm concept in other ways tends to mask this basic insight. The term "paradigm" is therefore used here in its metatheoretical or philosophical sense to denote an implicit or explicit view of

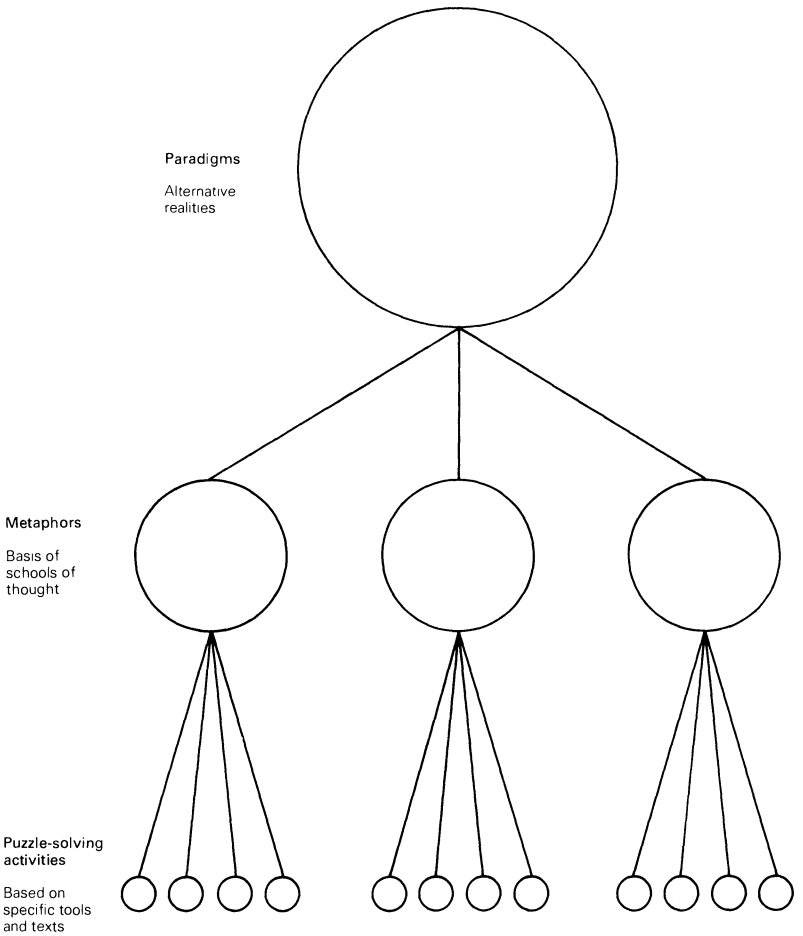

Figure 1. Paradigms, metaphors, and puzzle solving: three concepts for understanding the nature and organization of social science.

reality. Any adequate analysis of the role of paradigms in social theory must uncover the core assumptions that characterize and define any given world view, to make it possible to grasp what is common to the perspectives of theorists whose work may otherwise, at a more superficial level, appear diverse and wide ranging.[1]

Any metatheoretical paradigm or world view may include different schools of thought, which are often different ways of approaching and studying a shared reality or world view (the metaphor level of Figure 1). It will be argued in this article that schools of thought in social science, those communities of theorists subscribing to relatively coherent perspectives, are based upon the acceptance and use of different kinds of metaphor as a foundation for inquiry.

At the puzzle-solving level of analysis (Figure 1) it is possible to identify many kinds of research activities which seek to operationalize the detailed implications of the metaphor defining a particular school of thought. At this level of detailed analysis, many specific texts, models, and research tools vie for the attention of theorists, and much of the research and debate in the social sciences is focused at this level. This comprises what Kuhn (1962) has described as "normal science." In organization theory, for example, Thompson's (1967) book, *Organizations in Action*, has come to serve as a model statement and principal point of departure for theorists interested in contingency theory, which develops insights generated by the organismic metaphor (Burrell and Morgan, 1979). The numerous propositions offered in Thompson's book have generated a great deal of puzzle-solving research, in which the metaphorical assumptions underlying Thompson's model are taken-for-granted as a way of understanding organizations.

By appreciating how specific puzzle-solving activities are linked to favored metaphors, which are in accord with a favored view of reality, the theorist can become much more aware of the role which he or she plays in relation to the social construction of scientific knowledge. As in the case of Mannheim's "urbanized" peasant boy, a cosmopolitan outlook in theorizing depends upon the theorist leaving, at some stage, the community of practitioners with whom he or she may feel at home, to appreciate the realms of theorizing defined by other paradigms, and the varieties of metaphors and methods through which theory and research can be conducted.

PARADIGMS AS ALTERNATIVE REALITIES

The role of paradigms as views of social reality was recently explored in detail by Burrell and Morgan (1979), who argued that social theory in general, and organization theory in particular, could be usefully analyzed in terms of four broad world views, which were reflected in different sets of metatheoretical assumptions, about the nature of science, the subjective-objective dimension, and the nature of society, the dimension of regulation-radical change (Figure 2). Each of these four paradigms — functionalist, interpretive, radical-humanist, and radical-structuralist — reflects a network of related schools of thought, differentiated in ap-

[1] The importance of this point has not always been appreciated, and certainly has not been accorded the attention it deserves. Kuhn's notion that science is based on paradigms has generated a great deal of debate (Lakatos and Musgrave, 1970; Suppe, 1974). This has led Kuhn to modify his position on certain points (Kuhn, 1970, 1974, 1977, 1979), while retaining his commitment to the basic idea underlying the paradigm concept — that scientific communities are bound together by various bonds and commitments. The present article, following Burrell and Morgan (1979), builds upon this core insight, on the premise that the most fundamental of these bonds rests in the world view which scientists share, and which underwrites their approach to scientific inquiry.

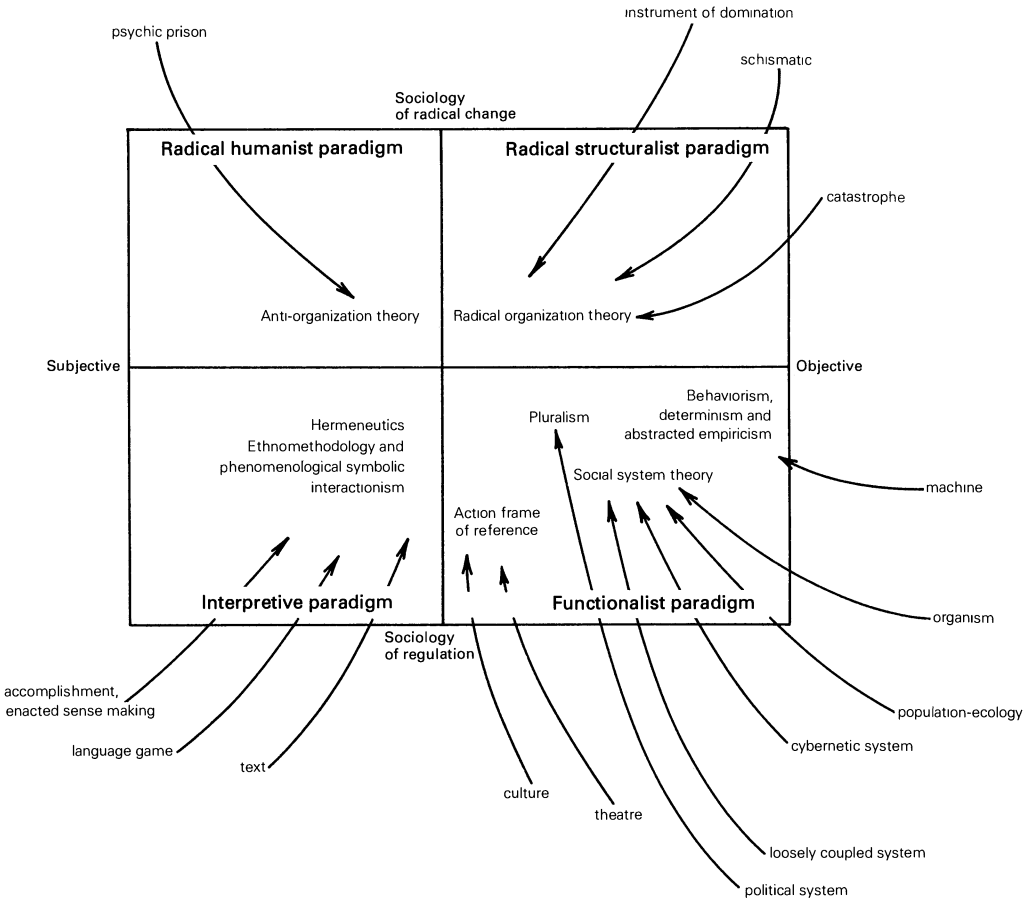

Figure 2. Paradigms, metaphors, and related schools of organizational analysis.

proach and perspective, but sharing common fundamental assumptions about the nature of the reality that they address.

The *functionalist* paradigm is based upon the assumption that society has a concrete, real existence, and a systemic character oriented to produce an ordered and regulated state of affairs. It encourages an approach to social theory that focuses upon understanding the role of human beings *in* society. Behavior is always seen as being contextually bound in a real world of concrete and tangible social relationships. The ontological assumptions encourage a belief in the possibility of an objective and value-free social science in which the scientist is distanced from the scene which he or she is analyzing through the rigor and technique of the scientific method. The functionalist perspective is primarily regulative and pragmatic in its basic orientation, concerned with understanding society in a way which generates useful empirical knowledge.

The *interpretive* paradigm, on the other hand, is based upon the view that the social world has a very precarious ontological status, and that what passes as social reality does not exist in any concrete sense, but is the product of the subjective and inter-subjective experience of individuals. Society is understood from the standpoint of the participant in action rather than the observer. The interpretive social theorist attempts to understand the process through which shared

multiple realities arise, are sustained, and are changed. Like the functionalist, the interpretive approach is based on the assumption and belief that there is an underlying pattern and order within the social world; however, the interpretive theorist views the functionalist's attempt to establish an objective social science as an unattainable end. Science is viewed as a network of language games, based upon sets of subjectively determined concepts and rules, which the practitioners of science invent and follow. The status of scientific knowledge is therefore seen as being as problematic as the common sense knowledge of everyday life.

The *radical humanist* paradigm, like the interpretive paradigm, emphasizes how reality is socially created and socially sustained but ties the analysis to an interest in what may be described as the pathology of consciousness, by which human beings become imprisoned within the bounds of the reality that they create and sustain. This perspective is based on the view that the process of reality creation may be influenced by psychic and social processes which channel, constrain, and control the minds of human beings, in ways which alienate them from the potentialities inherent in their true nature as humans. The contemporary radical humanist critique focuses upon the alienating aspects of various modes of thought and action which characterize life in industrial societies. Capitalism, for example, is viewed as essentially totalitarian, the idea of capital accumulation molding the nature of work, technology, rationality, logic, science, roles, language and mystifying ideological concepts such as scarcity, leisure, and so on. These concepts, which the functionalist theorist may regard as the building blocks of social order and human freedom stand, for the radical humanist, as modes of ideological domination. The radical humanist is concerned with discovering how humans can link thought and action (praxis) as a means of transcending their alienation.

The reality defined by the *radical structuralist* paradigm, like that of the radical humanist, is predicated upon a view of society as a potentially dominating force. However, it is tied to a materialist conception of the social world, which is defined by hard, concrete, ontologically real structures. Reality is seen as existing on its own account independently of the way in which it is perceived and reaffirmed by people in everyday activities. This reality is viewed as being characterized by intrinsic tensions and contradictions between opposing elements, which inevitably lead to radical change in the system as a whole. The radical structuralist is concerned with understanding these intrinsic tensions, and the way in which those with power in society seek to hold them in check through various modes of domination. Emphasis is placed upon the importance of praxis as a means of transcending this domination.

Each of these four paradigms defines the grounds of opposing modes of social analysis and has radically different implications for the study of organizations.

EPISTEMOLOGICAL STATUS OF METAPHOR

Human beings are constantly attempting to develop conceptions about the world, and as Cassirer (1946, 1955) and

others have argued, they do so symbolically, attempting to make the world concrete by giving it form. Through language, science, art, and myth, for example, humans structure their world in meaningful ways. These attempts to objectify a reality embody subjective intentions in the meanings which underwrite the symbolic constructs which are used. Knowledge and understanding of the world are not given to human beings by external events; humans attempt to objectify the world through means of essentially subjective processes. As Cassirer has emphasized, all modes of symbolic understanding possess this quality. Words, names, concepts, ideas, facts, observations, etc., do not so much denote external "things," as conceptions of things activated in the mind by a selective and meaningful form of noticing the world, which may be shared with others. They are not to be seen as a representation of a reality "out there," but as tools for capturing and dealing with what is perceived to be "out there." The scientist on this score, like others in everyday life, draws upon symbolic constructs to make concrete the relationships between subjective and objective worlds, in a process which captures only a pale and abbreviated view of either. For science, like other modes of symbolic activity, is built upon the use of imperfect epistemological tools, harboring what Cassirer (1946) described as the "curse of mediacy," and providing what Whitehead (1925) described as "useful fictions" for dealing with the world.

In understanding the way in which scientific theory is constructed as a symbolic form, it is important to give attention to the role of metaphor. For the process of metaphorical conception is a basic mode of symbolism, central to the way in which humans forge their experience and knowledge of the world in which they live. Metaphor is often regarded as no more than a literary and descriptive device for embellishment, but more fundamentally is a creative form which produces its effect through a crossing of images. Metaphor proceeds through assertions that subject A is, or is like B, the processes of comparison, substitution, and interaction between the images of A and B acting as generators of new meaning (Black, 1962).

Metaphor has been shown to exert an important influence upon the development of language (Muller, 1897); as meaning is transferred from one situation to another, new words and meanings being created as root meanings are used metaphorically to capture new applications. This is well illustrated, for example, in the history of the word "organization." The Oxford English Dictionary indicates that before 1873 the term "organization" was primarily used to describe the action of organizing or the state of being organized, particularly in a biological sense. In 1816 the term was used for the arranging and coordinating of parts into a systemic whole. About 1873 Herbert Spencer used the term to refer to "an organized body, system, or society." The state of being organized in a biological sense was the basis of the metaphor of arranging or coordinating in a general sense and of a body, system, or society in a general sense. Use of the term "organization" to depict a social institution is fairly modern, and creates a new meaning of this work through metaphorical extension of older meanings.

Metaphor has also been shown to play an important part in the use of language, cognitive development, and the general way in which humans forge conceptions about their reality (Burke, 1945, 1954; Jakobson and Halle, 1956; Ortony, 1979). Considerable attention has been given to the role played by metaphor in the development of science and social thought (Berggren, 1962, 1963; Black, 1962; Schön, 1963; Hesse, 1966), and Brown (1977) has provided an analysis of the influence of metaphor upon sociology.

The research work of these different theorists contributes to a view of scientific inquiry as a creative process in which scientists view the world metaphorically, through the language and concepts which filter and structure their perceptions of their subject of study and through the specific metaphors which they implicitly or explicitly choose to develop their framework for analysis. Attention in this article is focused upon the latter use of metaphor, with a view to showing how schools of thought in organization theory are based upon the insights associated with different metaphors for the study of organizations, and how the logic of metaphor has important implications for the process of theory construction.

The use of a metaphor serves to generate an image for studying a subject. This image can provide the basis for detailed scientific research based upon attempts to discover the extent to which features of the metaphor are found in the subject of inquiry. Much of the puzzle-solving activity of normal science is of this kind, with scientists attempting to examine, operationalize, and measure detailed implications of the metaphorical insight upon which their research is implicitly or explicitly based. Such confinement of attention calls for a great deal of prior and somewhat irrational commitment to the image of the subject of investigation, for any one metaphorical insight provides but a partial and one-sided view of the phenomenon to which it is applied.

The creative potential of metaphor depends upon there being a degree of difference between the subjects involved in the metaphorical process. For example, a boxer may be described as "a tiger in the ring." In choosing the term "tiger" we conjure up specific impressions of a fierce animal, moving at times with grace, stealth, power, strength, and speed in aggressive acts directed at its prey. By implication, the metaphor suggests that the boxer possesses these qualities in fighting his opponent. The use of this metaphor requires that the tiger's orange and black striped fur, four legs, claws, fangs, and deafening roar be ignored in favor of an emphasis upon the characteristics that boxer and tiger have in common. Metaphor is thus based upon but partial truth; it requires of its user a somewhat one-sided abstraction in which certain features are emphasized and others suppressed in a selective comparison. Figure 3 illustrates the crucial significance of difference in a metaphor. If the two subjects brought together are perceived to be completely unalike, e.g., boxer and saucepan (Figure 3a), or are seen as almost identical, e.g., boxer and man (Figure 3c), the metaphorical process produces either nonsensical or weak imagery. The most powerful use of metaphor arises in instances typified in Figure 3b, in which the differences be-

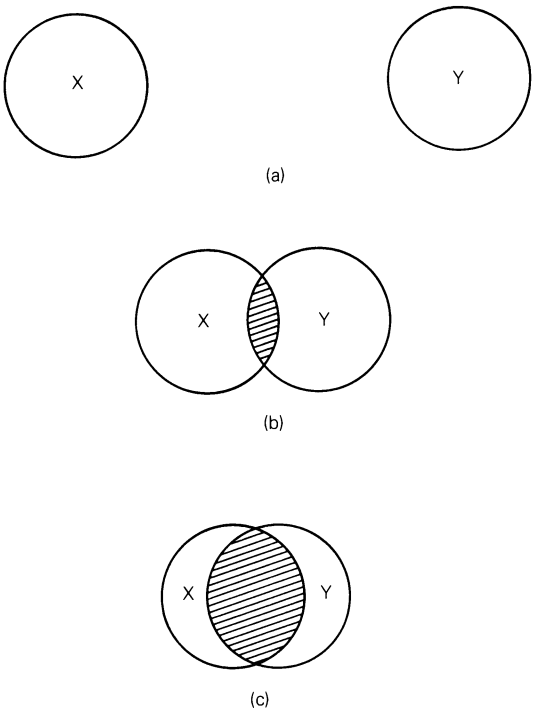

Figure 3. The role of difference in metaphor.

tween the two phenomena are perceived to be significant but not total. Effective metaphor is a form of creative expression which relies upon constructive falsehood as a means of liberating the imagination.

The logic of metaphor thus has important implications for organization theory, for it suggests that no one metaphor can capture the total nature of organizational life. A conscious and wide-ranging theoretical pluralism rather than an attempt to forge a synthesis upon narrow grounds emerges as an appropriate aim. Different metaphors can constitute and capture the nature of organizational life in different ways, each generating powerful, distinctive, but essentially partial kinds of insight. The logic here suggests that new metaphors may be used to create new ways of viewing organizations which overcome the weaknesses and blindspots of traditional metaphors, offering supplementary or even contradictory approaches to organizational analysis.

To acknowledge that organization theory is metaphorical is to acknowledge that it is an essentially subjective enterprise, concerned with the production of one-sided analyses of organizational life. This has important consequences, for it encourages a spirit of critical inquiry and cautions against excessive commitment to favored points of view. Traditional approaches to organizational analysis are often based upon a few well-tried concepts and methods, which are regarded as axiomatic insofar as an understanding of organization is concerned. In such situations the metaphorical nature of the image which generated such concepts is lost from view, and the process of organizational analysis becomes overconcretized as theorists and researchers treat the concepts as a description of reality. To return to the illustration pre-

sented earlier, the boxer is treated as a tiger, and "tigerness" provides the focus of detailed theory and research, often to the exclusion of all else. Such a perspective results in a premature closure in both thought and inquiry. Schools of theorists committed to particular approaches and concepts often view alternative perspectives as misguided, or as presenting threats to the nature of their basic endeavor. The approaches, techniques, concepts and findings which these alternative perspectives generate are often interpreted and evaluated in inappropriate ways, with great loss of significant meaning. Misunderstanding, hostility, or calculated indifference often tends to follow, with the result that open and constructive debate becomes difficult or impossible. An awareness of the metaphorical nature of theory may help to break down the false and restricting compartmentalization of inquiry and understanding which characterizes the conduct of modern organization theory. In order to understand any organizational phenomenon many different metaphorical insights may need to be brought into play.

The metaphorical status of scientific theorizing also has important implications for the way in which research may be conducted, encouraging a broadening of perspective and flexibility of approach. In breaking down the rigid division between what constitutes art and science, an awareness of the epistemological status of metaphor sensitizes scientists to the idea that nonscientific disciplines may have relevant insights, approaches, and methods of inquiry which can contribute to organizational analysis (Brown, 1977). An awareness that scientists in their detailed research are usually attempting to operationalize a metaphor serves as a sobering influence on the commitment to empirical research and detailed puzzle solving as an end in itself. This realization emphasizes the need to obtain a firm understanding of the links between theory and method, and the range of methodological approaches that are available for investigating different metaphorical standpoints (Morgan and Smircich, 1980).

METAPHOR IN ORGANIZATION THEORY

The orthodox view in organization theory has been based predominantly on the metaphors of machine and organism. The metaphor of a machine underwrites the work of the classical management theorists (Taylor, 1911; Fayol, 1949) and Weber's specification of bureaucracy as an ideal type (Weber, 1946). Although the conceptions underlying the work of these very different theorists were intended to serve different ends, that is, the improvement of efficiency in classical management theory, and our understanding of society in Weber's theory, the two lines of thought have fused to provide the foundations of modern organization theory. And the mechanical imagery is very clear. Machines are rationally devised for performing work in pursuit of prespecified ends; the machine metaphor in organization theory expresses these ends as goals and the means-ends relationship as purposive rationality. Indeed, machine models of organization have been variously described in the literature on organization theory as "rationality models" (Gouldner, 1959; Thompson, 1967) and "goal models" (Georgiou, 1973;

Etzioni, 1960). The details of these machine models are drawn from mechanical concepts. They attribute principal importance, for example, to the concepts of structure and technology in the definition of organizational characteristics. Machines are technological entities in which the relationship between constituent elements forms a structure. In classical and bureaucratic organization theory the principal emphasis is placed upon the analysis and design of the formal structure of an organization and its technology. Indeed, these theories essentially constitute blueprints for such design; they seek to design organizations as if they were machines, and the human beings expected to work within such mechanical structures are to be valued for their instrumental abilities. Taylor's conception of economic man and Weber's concept of the faceless bureaucrat extend the principles of the machine metaphor to define the view of human nature which best suits the organizational machine. Indeed, as Weber suggests, the bureaucratic mode of organization develops the more perfectly the more this mode of organization upon the nature of life activity. An organism is typically seen as a combination of elements, differentiated yet intecalculation, such as love, hatred, and all purely personal, irrational, and emotional elements (Weber, 1946:216). Furthermore, the operation of the whole bureaucratic enterprise is judged in terms of its efficiency, another concept deriving from the mechanical conception of an organization as an instrument for achieving predetermined ends.

The other major metaphor in organization theory is that of the organism. The term "organism" has come to be used to refer to any system of mutually connected and dependent parts constituted to share a common life and focuses attention upon the nature of life activity. An organism is typically seen as a combination of elements, differentiated yet integrated, attempting to survive within the context of a wider environment (Spencer, 1873, 1876–1896). The links between this metaphor of an organism and much contemporary organization theory are strong and clear. The main emphasis of the open-systems approach, for example, is the close interactive relationship between organization and environment and how the continued life or survival of an organization is dependent upon an appropriate relationship being achieved. Emphasis is also placed upon the idea that the organization has needs or imperative functions, which must be satisfied for the organization to achieve this relationship with the environment. The Hawthorne studies (Roethlisberger and Dickson, 1939), the structural functionalist theories of Selznick (1948) and Parsons (1951, 1956), the sociotechnical systems approach (Trist and Bamforth, 1951), the general systems approach (Katz and Kahn, 1966), and much modern contingency theory (Burns and Stalker, 1961; Lawrence and Lorsch, 1967) are all based upon the development of the organismic metaphor. Whereas in the machine metaphor the concept of organization is as a closed and somewhat static structure, in the organismic metaphor the concept of organization is as a living entity in constant flux and change, interacting with its environment in an attempt to satisfy its needs. The relationship between organization and environment has stressed that certain kinds of organizations are better able to survive in some environ-

ments than others. The focus upon needs and imperative functions had allowed theorists to identify essential life-sustaining activities. The imperative of satisfying the psychological needs of organizational members (Trist and Bamforth, 1951; Argyris, 1952, 1957), and of adopting appropriate managerial styles (McGregor, 1960; Likert, 1967), technology (Woodward, 1965), modes of differentiation, integration and conflict resolution (Lawrence and Lorsch, 1967), and modes of strategic choice and control (Child, 1972; Miles and Snow, 1978) have all been incorporated into contemporary contingency theory, which, in essence, carries the implications of the organismic metaphor to their logical conclusion. For organizations are viewed from this perspective not only in terms of the network of relationships that characterize the internal structure of organisms, but also in terms of the relationships which exist between the organization (organism) and its environment.

The distinction between machine and organism has been the basis for a continuum of organizational forms (Burns and Stalker, 1961), and has influenced many attempts to measure organizational characteristics. Research on organizations since the late 1960s, for example, has been dominated by attempts to conduct detailed empirical studies of various aspects of the contingency approach, as the volumes of *ASQ* over the last ten years or so indicate. Although these studies have generated numerous detailed insights, which inform our understanding of organizations as machines and organisms, it is important to appreciate that the kind of insight generated is limited by the metaphors upon which they are based. In recent years organizational theorists have come to recognize this, and realized that viewing organizations on the basis of new metaphors makes it possible to understand them in new ways. Viewing organizations systematically as cybernetic systems, loosely coupled systems, ecological systems, theatres, cultures, political systems, language games, texts, accomplishments, enactments, psychic prisons, instruments of domination, schismatic systems, catastrophes, etc., it is possible to add rich and creative dimensions to organization theory.

The cybernetic metaphor encourages theorists to view organizations as patterns of information, and focuses attention upon the way in which states of homeostatic balance can be sustained through learning processes based on negative feedback. Some theorists have begun to explore the implications of this metaphor for organization and management (Buckley, 1967; Hage, 1974; Argyris and Schön, 1978), and cybernetics has been widely used as a technique for improving organizational control systems (Lawler and Rhode, 1976). The metaphor of a loosely coupled system, introduced to organization theory by Weick (1974, 1976), specifically attempts to counter the assumptions implicit in mechanical and organismic metaphors that organizations are tidy, efficient, and well-coordinated systems. The population-ecology metaphor (Hannan and Freeman, 1977) emphasizes the importance of focusing upon competition and selection in populations of organizations, instead of organization-environment adaption. The metaphor of theatre focuses upon how organizational members are essentially human ac-

tors, engaging in various roles and other official and unofficial performances (Goffman, 1959, 1961). The culture metaphor draws attention to the symbolic aspects of organizational life, and the way in which language, rituals, stories, myths, etc., embody networks of subjective meaning which are crucial for understanding how organizational realities are created and sustained (Turner, 1971; Pondy and Mitroff, 1979). The metaphor of a political system focuses attention upon the conflicts of interest and role of power in organizations (Crozier, 1964; Pettigrew, 1973; Pfeffer and Salancik, 1978).

These metaphors create means of seeing organizations and their functioning in ways which elude the traditional mechanical and organismic metaphors. Yet they can all be used in a functionalist manner, generating modes of theorizing based upon the assumption that the reality of organizational life rests in a network of ontologically real relationships, which are relatively ordered and cohesive. As a result, they may simply develop different approaches toward study of a common paradigm. The cybernetic, loosely-coupled system, and population-ecology metaphors all have their roots in the natural sciences, and all in one way or another emphasize the idea that organizations can be seen as adaptive systems. Negative feedback, loose coupling, and natural selection are the three different kinds of adaptive mechanisms highlighted by these different metaphors. Each of the theatre, culture, and political system metaphors introduce an explicitly social dimension to the study of organizations, and give particular attention to the way in which human beings may attempt to shape organizational activities. Insofar as the dramaturgical, cultural, and political activities involved here are seen as occurring within a contextually defined and hence ontologically real setting, and viewed as a form of adaptive activity, these metaphors also develop a functionalist approach to the study of organizations. They attempt to capture and articulate aspects of an underlying view of reality but from different angles and in different ways.

Interpretive metaphors question the grounds upon which functionalist theory is built, focusing upon the way in which organizational realities are created and sustained. The metaphor of a language game (Wittgenstein, 1968), for example, denies organizations concrete ontological status and presents organizational activity as little more than a game of words, thoughts, and actions. It suggests that organizational realities emerge as rule-governed symbolic structures as individuals engage their worlds through the use of specific codes and practices, in order to vest their situations with meaningful form. Organizational realities from this point of view rest in the use of different kinds of verbal and nonverbal language. Language is not simply communicational and descriptive; it is ontological. Thus being a manager in an organization involves a particular way of being in the world, defined by the language game which a person has to play to be recognized and function as a manager. The organizational concepts which give form to notions of rationality, bureaucratic structure, delegation, control, etc., are managerial concepts (Bittner, 1965), which label and realize a world in which managers can act as managers. In a similar

way, the concept and detailed language of leadership creates and defines the nature of leadership as an ongoing process (Pondy, 1978). Viewed in terms of the language game metaphor, organizations are created and sustained as patterns of social activity through the use of language; they constitute no more than a special form of discourse.

The metaphor of text (Ricoeur, 1971) suggests that the organization theorist should view organizational activity as a symbolic document, and employ hermeneutic methods of analysis as a means of unravelling its nature and significance. Texts give form to particular kinds of language games, explicate themes, and make use of metaphorical expressions to convey significant patterns of meaning. Once authored, the text is available for interpretation and translation by others, who may vest it with significance and meaning other than that intended by the author. All these qualities are evident in day-to-day organizational life where everyone is both author and reader, though some more significantly so than others. The organization theorist adopting the metaphor of text is concerned with understanding the manner in which organizational activities are authored, read, and translated, the way in which the structure of discourse may explore certain key themes and develop particular kinds of imagery. The metaphor can be utilized for the analysis of organizational documents (Huff, 1979), and organizational talk and action (Manning, 1979).

The metaphors of accomplishment (Garfinkel, 1967) and enacted sense making (Weick, 1977) provide two further interpretive approaches to the study of organization. Garfinkel's ethnomethodology focuses upon the way in which human beings accomplish and sustain social situations intelligible both to themselves and to others. Weick's sense making metaphor develops related insights, emphasizing how realities are enacted by individuals through after-the-event rationalizations as to what has been happening. Viewed in terms of these metaphors, organizational realities are to be seen as ongoing social constructions, emerging from the skillful accomplishments through which organizational members impose themselves upon their world to create meaningful and sensible structure. Like other interpretive metaphors, they emphasize that the routine, taken-for-granted aspects of organizational life are far less concrete and real than they appear.

When organizations are approached from the perspective of the radical humanist paradigm, all the concepts and modes of symbolic action that sustain organizational life are scrutinized for their alienating properties. The guiding metaphor here is that of the psychic prison, an image which focuses upon the way human beings may be led to enact organizational realities experienced as confining and dominating. This metaphor is evident in a number of strands of social thought. In the critical theory stemming from the work of Marx (1844) and Lukács (1971), the emphasis is placed upon the process of reification through which individuals over-concretize their world, perceiving it as objective and real, and something independent of their own will and action. As developed in the work of the so-called Frankfurt school (Marcuse, 1955, 1964; Habermas, 1970, 1972), princi-

pal emphasis is placed upon how ideological modes of domination may be manipulated by those with power in pursuit of their own ends. Organizational members are effectively viewed as prisoners of a mode of consciousness which is shaped and controlled through ideological processes. Many specific aspects of organizational life have been examined from this point of view. Marcuse (1964) has addressed the alienating aspects of purposive rationality, Clegg (1975) the language of organizational life, Dickson (1974) the worship of technology, and Anthony (1977) the ideology of work itself. Life at work, when viewed from the critical theory perspective, constitutes an alienated mode of life in which individuals are shaped, controlled, and generally made subservient to the artificially contrived and reified needs of modern organization. The work of Freud (1922), Jung (1953–1965), and other psychoanalytic theorists also articulate perspectives consistent with the psychic prison metaphor, individuals being viewed as captives of unconscious processes. Organizations from the Freudian perspective may be seen as based upon the externalization of repressive tendencies operating within the human psyche (Marcuse, 1955), and from the Jungian perspective as the manifestation of some form of archetype expressing relationships between subjective and objective worlds. The psychic prison metaphor sets the basis for an "anti-organization theory" (Burrell and Morgan, 1979), which challenges the premises of functionalist organization theory in many ways.

The radical structuralist paradigm generates a radical organization theory based upon metaphors such as the instrument of domination, schismatic system, and catastrophe. Weber's classic analysis of bureaucracy as a mode of domination (Weber, 1946), Michels' analysis of the "iron law of oligarchy" (Michels, 1949), and Marxist analyses of organization (Baran and Sweezy, 1966; Braverman, 1974; Benson, 1977), for example, are all informed by the image of organizations as powerful instruments of domination to be understood as an integral part of a wider process of domination within society as a whole. Although such analyses often utilize insights deriving from the machine metaphor, organizations as machines are studied for their oppressive qualities. This is clearly evident, for example, in Weber's work, which, stripped of its radical dimension, is the basis for much functionalist theory based upon the machine metaphor. Theorists who have used Weber's ideas from a functionalist point of view completely ignore the fact that Weber considered bureaucracy an "iron cage." The metaphor of instrument of domination devotes much attention to this neglected aspect of organization, and encourages an analysis of the means by which modes of domination operate and are sustained. This metaphor leads to an interest in understanding how the power structure within organizations is linked to power structures within the world political economy, and how societal divisions between classes, ethnic groups, men and women, etc., are evident in the work place. Insights generated by the psychic prison metaphor are often utilized within the context of radical structuralist theory as a means of articulating the nature of ideological domination as part of a more broadly based mode of socioeconomic domination. Those in control of organizations

are viewed as utilizing ideological, political, and economic means of dominating their members (Friedman, 1977), and for dominating the wider context within which they operate. Study of the role of multinationals in the world political economy (Barnet and Muller, 1974), and the role of the modern state (Holloway and Picciotto, 1978), has provided a strong center of interest here.

The schismatic metaphor (Morgan, 1980) focuses attention upon how organizations may have a tendency to fragment and disintegrate as a result of internally generated strains and tensions. It specifically counters the functionalist premise that organizations are unified entities seeking to adapt and survive, by focusing upon processes through which organizations factionalize as a result of schismogenesis (Bateson, 1936) and the development of patterns of functional autonomy (Gouldner, 1959).

The "catastrophe" metaphor has been used in Marxist theory to analyze internal contradictions of the world political economy (Bukharin, 1915, 1925) which set the basis for revolutionary forms of change. A somewhat different version is developed in the "catastrophe theory" of René Thom (1975). Both have relevance for studying the role of organizations in the contemporary world economy, the labor process, and labor-management relations. While the metaphor has been used in many ways as a basis for detailed puzzle-solving models within a functionalist perspective, it has not been systematically used to develop a comprehensive radical structuralist analysis of organization.

CONCLUSIONS

Orthodoxy in organization theory has developed upon the basis of metaphors which reflect the assumptions of the functionalist paradigm. These assumptions are rarely made explicit and are often not appreciated, with the consequence that theorizing develops upon unquestioned grounds. The assumptions of interpretive, radical humanist, and radical structuralist paradigms challenge functionalist assumptions in fundamental ways. They generate a variety of metaphors for organizational analysis, resulting in perspectives that often contradict the tenets of orthodox theory. For example, whereas functionalist theory emphasizes that organizations and their members may orient action and behavior to the achievement of future states, interpretive theory emphasizes that action is oriented as much to making sense of the past as to the future. Whereas functionalist theory views organizations and their members interacting and behaving within a context or environment of some kind, interpretive theory questions the status and existence of such contextual factors, other than as the social constructions of individuals which have become shared. Functionalist theory builds upon premises which interpretive theory suggests are fundamentally ill conceived.

The radical humanist and radical structuralist paradigms offer a similar kind of challenge, which draws attention to the political and exploitative aspects of organizational life. From the perspective of these paradigms, both functionalist and interpretive theory fail to understand that the apparent order in social life is not so much the result of an adaptive

process or a free act of social construction, as the consequence of a process of social domination. Organizations from this point of view oppress and exploit, and embody a logic which sets a basis for their eventual destruction. The order which interpretive theory seeks to understand, and which functionalist theory seeks to enhance, is from the radical humanist and radical structuralist perspectives, a superficial order masking fundamental contradictions. The challenge to organization theory emanating from these paradigms is to penetrate beneath the surface appearance of the empirical world, and reveal the deep structure of forces which account for the nature, existence, and ongoing transformation of organizations within the total world situation. Organization theory from the radical humanist and radical structuralist perspectives cannot provide an adequate understanding of the nature of organization through an exclusive focus upon organizations and behavior in organizations. These paradigms suggest that the study of such phenomena must be linked to the wider mode of societal organization to which they give detailed empirical content and form.

The challenge presented to orthodox organization theory by these different paradigms is to rethink the very nature of the subject to which it is addressed. Different paradigms embody world views which favor metaphors that constitute the nature of organizations in fundamentally different ways, and which call for a complete rethinking as to what organization theory should be about. The challenge raised relates to the ground assumptions upon which theorizing is based, and can only be settled through a consideration of the appropriateness of these rival grounds as a basis for organizational analysis.

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