Organizational Science in a Postmodern Context

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There is broad agreement that, at least within the western world, the greater part of the present century has been dominated by an interlocking array of conceptions that - retrospectively - may be termed modernist. These conceptions, in turn, are related to various techno material conditions, undergird many forms of institutional life, and inform a broad array of cultural practices - for example, within literature, art, architecture and industry. Analysts focus on differing aspects of this period, often using the term modernity to emphasize a composite of technological, economic, and institutional features (Giddens, 1990; Jameson, 1984), and modernism to speak of intellectual and cultural patternings (Levenson, 1984; Frascina and Harrison, 1982). While unanimity of characterization is far from complete, there is also a general recognition that this interrelated set of modernist beliefs is slowly losing its commanding sense of validity. This consciousness of disjunction is variously indexed by writings on the demise of history (Bernstein, 1989; Fukuyama, 1992), nature (McGibben, 1989), the individual (Ashley, 1990), coherent identity (Gergen, 1991), objective representation (Marcus and Fisher, 1986), modern sociology (Cheal, 1990), empirical psychology (Sampson, 1989; Parker and Shotter, 1990), literary theory (de Man, 1986), and philosophy (Rorty, 1979).These and other works now examine the pitfalls and potentials of life in a postmodern context (Lyotard, 1984; Rosenau, 1992; Norris, 1990; Turner, 1990; Gergen, 1991; Pfohl, 1992).

Drawing sustenance from Robert Cooper's (Cooper, 1987; Cooper and Burrell, 1988) volatile critiques of the systemic orientation of modern organizational theory, one pauses to consider organizational science itself. For the very theoretical suppositions under attack in Cooper's work are wedded to a body of interlocking beliefs concerning organizational science as a knowledge generating discipline. If the theoretical premises are placed in question, so by implication are the metatheoretical commitments from which these premises spring. In the present offering we shall first consider prominent ways in which traditional organizational science is rooted in modernist assumptions, along with several major threats which postmodern thought poses for such assumptions. More importantly, given the waning of the modernist tradition, we must ask what postmodern thought can offer as an alternative conception of organizational science? Are postmodern critiques simply nihilistic, as many believe? As we shall propose, certain arguments within the postmodern dialogues, when properly extended, yield a promising vision of future organizational science. After developing these arguments, we shall explore several significant implications and illustrate their potential in ongoing work.

MODERNISM AND THE FORMATION OF ORGANIZATIONAL SCIENCE

To appreciate the emerging elements of postmodern thought, let us first isolate key presumptions underlying organizational science in the modernist frame. More broadly, this is to articulate a number of the constitutive beliefs which have defined the very character of organizational science - its major forms of research, theoretical commitments, and its practices within the workplace. In effect, the implications of these beliefs have been evidenced in virtually every corner of the discipline - from the classroom, to the research site, forms of publication, theoretical content, and the dispositions carried by specialists into organizations themselves. Although there is much to be said about science in modernist mold, we shall confine ourselves here to several presumptions of relevance to future developments:

The Rational Agent

As most scholars agree, modernist thought in the present century has important roots in the Enlightenment (the rise from the "dark" or "medieval" ages), a period when the works of philosophers such as Descartes, Locke, and Kant were giving sophisticated voice to emerging conceptions of the individual and the cosmos. Although history has furnished many significant detours (for example, 19th century romanticism), Enlightenment assumptions have continued into the present century, fueled to new heights by various scientific and technological advances (attributed to Enlightenment presumptions), the growth of industry and prevalence of warfare (both of which increased society's dependency on science and technology), and various philosophic and cultural movements (e.g. logical positivism, modern architecture; modern music).

The Enlightenment was a historical watershed primarily owing to the dignity which it granted to individual rationality. Enlightenment thinkers assailed all forms of totalitarianism - royal and religious. As it was argued, within each individual lies a bounded and sacred principality, a domain governed by the individual's own capacities for careful observation and rational deliberation. It is only my thought itself, proposed Descartes, that provides a certain foundation for all else. It is this 18th century valorization of the individual mind that came to serve as the major rationalizing device for the 20th century beginnings of organizational science. The effects here are twofold: first, the individual mind of the worker/ employee/ manager becomes a preeminent object of study; and second, knowledge of the organization is considered a byproduct of the individual rationality of the scientific investigator. On the one hand, if individual rationality is the major source of human conduct, then to unlock its secrets is to gain provenance over the future wellbeing of the organization. At the same time it is the individual investigator, trained in systematic rational thought, who is best equipped to carry out such study.

More explicitly, these assumptions have been realized in the conceptions of the individual and the organization emerging from organizational study since virtually its inception. For many scholars (see, for example, Clark and Wilson, 1961; de Grazia 1960), Taylorism provided the modernist model of organizational life par excellence. On the one hand it viewed the individual worker as a quasi-rational agent who responds to various inputs (e.g. orders, incentives) in systematic ways. Thus, if the organizational researcher makes a rational assessment of inputs and their effects on time and motion, worker behavior can be reliably maximized. Although shorn of the dehumanizing qualities of early Taylorism, the general orientation gave rise to contemporary beliefs that management is a process of planning, organizing, coordinating, and controlling. Such beliefs continued to pervade organizational science theories and practices. For example, congenial to these beliefs are job enrichment, job rotation, job enlargement, job design (Hackman and Lawler (1971), and management by objectives (MBO) techniques extensively used during the 1960-70s. More recently, planning-programming-budgeting systems (PPBS), and Total Quality Management (TQM) are often conceptualized as "input-devices" used to derive the greatest output from employees. Here the manager is typically assisted by consultants and strategic planners trained to make predictions based on the assumption of individual rationality. Managers create short and long term predictions of organizational performance based on the assumption that employees are rational beings who, in order to optimize their outcomes, will react to various inputs in reliable ways to produce goods and services.

Similarly, the belief in rational agency figures in the conception of the ideal manager. Contingency theories (Lawrence and Lorsch, 1967) reveal steps that the individual manager can take in order to create the optimal balance between the organization and environmental conditions. The field of strategic management similarly rests on the assumption of individual rationality (Thomson and Strickland, 1992). For example, Miles and Snow (1978) have identified four strategic styles of management; Child (1972) similarly proposed a theory of "strategic choice." Expectancy theory (Vroom, 1964), the path-goal theory of leadership (House, 1971), and goal setting theory (Locke, 1968) are also based on assumptions of individual rationality. The seminal work of Herbert Simon (1957) on "bounded rationality" - while recognizing limitations in the human capacity to process information - is premised on the assumption of individual "satisficing," implying that the search for rational alternatives ceases not with an optimal but a satisfying solution. Management education and training programs are similarly developed to furnish managers with managerial competencies crucial to producing superior performance (Boyzatis, 1982). Similarly, Lobel (1990) has proposed Global Leadership Competencies, individual modes of managerial activity that should have universal efficacy. In short, the prevailing assumption is that individuals are in charge of the organization, and that through the development of their rational capacities (to think, plan, discern, create, etc.) they can effectively direct or lead the organization.

In addition to informing the view of the individual worker and the function of the manager, the commitment to rational process has also shaped the contours of macro-organizational theories. It is this topic to which Cooper and Burrell (1988) have largely addressed themselves. As they point out, "The significance of the modern corporation lies precisely in its invention of the idea of performance, especially in its economizing mode, and then creating a reality out of the idea by ordering social relations according to the model of functional rationality." (p.96). They illustrate with the work of Bell (1974) and Luhmann (1976). Similarly, cybernetic and general systems conceptions - such as those championed by Boulding, Bertalanffy and Weiner - have directly contributed to the open systems perspectives of organizational theory. As Shafritz and Ott (1987) point out, the systems orientation is philosophically and methodologically tied to Taylorism.

Finally, the belief in rational agency undergirds the self-conception of the organizational scientist and the view of his/her role vis a vis the organization. At the foundational level one could argue that organizational theory is the quintessential outcome of rational thought, and this presumption grants to the professional theorist a degree of superiority. In the modernist Zeitgeist, it is the most rational voice that should prevail in the interminable contest of opinions. And it is this implicit claim to reason that has largely provided the justification for organizational consulting: the consultant, by traditional standards, is (or should be) one who - by virtue of scientific training - thinks more clearly, objectively, profoundly, or creatively than the layman, and is thus deserving of voice within the organization. This logic is amplified by a second modernist belief.

Systematic Empiricism

In addition to the celebration of rationality, a second legacy of Enlightenment discourse is a strong emphasis on the powers of individual observation. It is reason, in combination with observation, that enables the individual's opinion to count on par with those of religious and royal lineage. This emphasis is played out most importantly in empiricist philosophy over the centuries, and surfaces most vigorously in the present century in forms of logical positivist or empiricist philosophy. For logical empiricists (see for example, Ayer, 1940), only those propositions linked unambiguously to observables are candidates for scientific consideration, and it was only the careful testing of scientific propositions that can lead to increments in knowledge. Within the behavioral sciences these views not only became central rationalizing devices - placing the behavioral sciences, as they did, on equal footing with chemistry and physics - they also stimulated enormous interest in research methodology and statistics.

It is within this soil that organizational science took initial root. The presumption was that there is a concrete organizational reality, an objective world, capable of empirical study. To illustrate, in the premier issue of the Journal of the Academy of Management, William Wolf (1958:14) proclaimed that, "We can describe an organization as a living thing; it has a concrete social environment, a formal

structure, recognized goals, and a variety of needs." Similarly, in his widely cited, Modern Organization Theory, Mason Haire (1959) discussed the "shape" and other "geometric properties" of an organization, arguing that organizations have bodily properties and growth characteristics typical of the biological world. This concrete character of the organization was also evident in Talcott Parson's contribution to the first issue of Administrative Science Quarterly (1956). Here Parsons defined an organization as a "social system oriented to the attainment of relatively specific types of goals, which contributes to a major function of a more comprehensive system, usually the society itself." (1956:63) In the same issue of this journal James Thomson (1956:102), writing about the task of building an administrative science, placed the major emphasis on "deductive and inductive methods...operational definitions...and measurement and evaluation."

Within this context, it was the responsibility of the organizational scientist to work toward isolating variables, standardizing measures, and assessing causal relations within the organizational sphere. Thus, for example, Pugh et al. (1963) proposed to analyze organizational structure in terms of six variables - specialization, standardization, formalization, centralization, configuration, and flexibility. These were to be related in causal fashion to such variables as size of the firm, ownership and control, charter, and technology. Similarly, in his Axiomatic Theory of Organization, Hage (1965) defined eight variables (e.g. complexity, stratification, efficiency, production effectiveness, job satisfaction) with corresponding "indicators" for precise measurement. Warriner, Hall and McKelvey (1981:173) have even urged researchers to formulate "a standard list of operationalized, observable variables for describing organizations." And, it is also this emphasis on rigorous observation that leads to the frequent apologies made for organizational theory, its lack of "strong" methodologies, and thus its capacities for prediction and control.

At the same time, this celebration of observational process makes its way both into theories of the effective organization, and to the positioning of the organizational scientist in the broader cultural sphere. In the former case, an array of organizational theories place a strong emphasis on the necessity for the organization to systematically gather information, facts, or data for purposes of optimizing decision making. Most early theories of rational decision making, for example, were closely coupled with an emphasis on empirical fact. For instance, Frederick (1963) pointed to the necessity for linking statistical decision theory and other mathematical decision making strategies to empirical inputs. Rational decisions - whether in organizations or in science itself - are "primarily a function of available information" (p.215). The emphasis placed on rigorous observation within the profession, and its reinstantiation within its theories of optimal organizational functioning, also enhances the image of the organizational scientist within the culture. If observational techniques yield information essential to organizational wellbeing, and the organizational scientist is an expert in rigorous observation, then the scientist's voice is again privileged. By nature of his/her training, the scientist can be an essential aide de camp for the aspiring

organization.

Language as Representation

A third modernist text shapes the contours of organizational science. In comparison to the stories of individual rationality and systematic empiricism, it seems of minor significance. Yet, it is one that proves critical as we move to the postmodern context. The emphasis in this case is on the function of language in both science and the culture at large. John Locke (1825/1959) captures the Enlightenment view of language: Our words are, according to Locke, "signs of internal conceptions." They stand as "marks for the ideas within (the individual's) mind whereby they might be made known to others and the thoughts to man's (sic) mind might be conveyed from one to another."(p.106) And it is this view of language, as an outward expression of an inward mentality, that has been passed across the centuries, now to inform organizational science in the modernist mold. At the outset, as scientists we treat language as the chief means by which we inform our colleagues and our culture of the results of our observations and thought. In effect, we use language to report on the nature of the world insofar as we can ascertain its character through observation. Words, in effect, are carriers of "truth" or "knowledge" - whether in journals or books, or in everyday conversation.

This same belief in the capacity of language to represent the real, when coupled with the belief in reason and observation, also sets the stage for modernist understanding of organizational structure and communication. The effective organization should be one in which various speciality groups generate data relevant to their particular functions (e.g. marketing, operations, human resources), the results of these efforts are channeled to the other decision-making domains, and most importantly, higher ranking executives are informed so as to make rational decisions coordinating these various efforts. In effect, the emphasis on rationality, empiricism, and language as representation favor strong divisions of labor (specialization) and hierarchy (See, for example, the early work of Rushing, 1967; de Grazia, 1960; Thomson, 1961; and Rosengren, 1967). The Narrative of Progress

Closely related to the preceding assumptions is a final modernist belief, that of systematic progress. If reason and observation work in harmony, the nature of the objective world is made known through language, others can reexamine and give further thought to these propositions, the findings of this assessment are again made available for others' scrutiny, and so on, the inevitable result will be a march toward objective truth. Scientists shall acquire increasingly sophisticated knowledge about the nature of the world, be capable of increasingly precise predictions, and ultimately be able to build utopian societies. This presumption of progress is also a constitutive belief within modernist organizational science. In the formative years of the science, Rollin Simonds (1959) gives voice to the

progressive narrative in the Journal of the Academy of Management:

As (the science of business administration) develops...there will be more and more stress on stating rather precisely cause and effect relationships and on securing empirical data to substantiate or disprove these statements. Then the results of one investigation may be integrated with another until very substantial evidence is accumulated in support of a set of scientific principles. (p. 136) Thirty years later, Cheal (1990) characterized modernity as a project in which the goal of progress is achieved through the "managed transformation" of social institutions. The industrial organization is thus a major source of human unity and progress. In Bell's (1974) terms, modern (post-industrial) society is "organized around knowledge for purposes of social control and the directing of innovation and change..."(p.20). Much the same view scientific progress is also projected into theories of organizational functioning. It is through continued research that the organization may adapt and prosper. With the consistent application of reason and empirical observation, there should be steady increments in the organization's capacities for control and positive innovation.

THE POSTMODERN TURN

The vast share of contemporary theory and practice in organizational science is still conducted within a modernist framework. Most remain committed to one or more of the modernist presumptions. However, across many branches of the sciences and humanities - indeed, some would say across the culture more generally - a new sensibility has slowly emerged. Within the academy this sensibility is predominantly critical, systematically dismantling the corpus of modernist assumptions and practices. Such critiques not only obliterate the modernist logics, but throw into question the moral and political outcomes of modernist commitments. Yet, while critique is pervasive and catalytic, it has not yet been restorative. While faulting existing traditions, it has left the future in question. How do we now proceed? The question lingers ominously in the wings. In our view, however, there lie embedded within certain forms of critique, implicit logics of great potential. Criticism, too, proceeds from an assumptive base, and as its implicature is explored, a vision of alternatives unfolds. In terms of positive potentials, we feel the most promising forms of critique are social constructionist in character. In what follows, we shall outline the nature of the critique and the grounds for a constructionist vision of organizational science. From Individual to Communal Rationality

While a faith in individual rationality lies somewhere toward the center of the modernist world view, postmodern voices turn skeptical. At the extreme, the concept of individual rationality is found both conceptually flawed and oppressive in implication. Its conceptual problems are demonstrated most clearly in the case of literary and rhetorical movements. In major respects, these movements are pitted against the modernist assumption that rational processing lies "behind" or guides one's "outward" behavior. The site of critique in this case is language,

which for the modernist furnishes the most transparent expression of individual rationality. As semioticians, literary deconstructionists and rhetoricians propose, language is a system unto itself, a system of signifiers that both precedes and outlives the individual. Thus for one to speak as a rational agent is but to participate in a system that is already constituted; it is to borrow from the existing idioms, to appropriate forms of talk (and related action) already in place. Or more broadly put, to "do rationality" is not to exercise an obscure and interior function of "thought," but to participate in a form of cultural life. As rhetoricians add to the case, rational suasion is not thus the victory of a superior form of logic over an inferior one, but results from the exercise of particular rhetorical skills and devices. In effect, there is little reason to believe that there is a specifically rational process (or logos) lurking beneath what we take to be rational argument; to argue rationally is to "play by the rules" favored within a particular cultural tradition.

For many scholars, the implications of such arguments suggest the presence of broad and oppressive forces within the culture - appropriating both voice and power by claiming transcendent or culture free rationality. Critiques of the modernist view of individual rationality are most sharply articulated in feminist and multicultural critiques. As the critics surmise, there are hierarchies of rationality within the culture: By virtue of educational degrees, cultural background and other such markers, some individuals are deemed more rational (intelligent, insightful) than others, and thus more worthy of leadership, position, and wealth. Interestingly, those who occupy these positions are systematically drawn from a very small sector of the population. In effect, while Enlightenment arguments have succeeded in unseating the totalitarian power of crown and cross, it is argued, they now give rise to new structures of power and domination. And, if the exercise of rationality is, after all, an exercise in language; if convincing descriptions and explanations are, after all, rhetorically constituted, then what is there to justify one form of rationality over another? And wouldn't such justifications, if offered, be yet another exercise in rhetorical suasion?

Yet, postmodernist voices also enable us to move beyond critique. For when these various ideas are linked to emerging arguments in the history of science and the sociology of knowledge, an alternative view of human rationality emerges. Consider again the system of language. Language is inherently a byproduct of human interchange. There can be no "private language" (following Wittgenstein, 1963). To generate a symbol system of one's very own, would essentially be autistic. Viable language, then, depends on communal cooperation - the "joint-action" (in Shotter's, 1984, terms) of two or more persons. Making sense is a communal achievement. Now if being rational is fundamentally an achievement in language (or actions consistent with a given language), as previously suggested, then rationality is inherently a form of communal participation. To speak rationally is to speak according to the conventions of a culture. Rational being is not thus individual being, but culturally coordinated action.

From Empirical Method to Social Construction

Under modernism, observational methods enjoyed an elevated status. The more sophisticated the mensurational and statistical techniques, it was believed, the more reliable and well nuanced the scientific understanding of the phenomena in question. The road to truth, then, must be paved with rigorous empirical methods. From the postmodern standpoint, methodology does not itself place demands on descriptions or interpretations of data; findings do not inexorably rule between competing theories. This is so because phenomena are themselves theory laden, as are the methods used in their elucidation. It is only when commitments are made to a given theoretical perspective (or form of language) that research can be mounted and methods selected. The a priori selection of theories thus determines in large measure the outcomes of the research - what may be said at its conclusion.

To illustrate, if the organizational scientist is committed to a view of the individual as a rational decision maker, then it is intelligible to mount research on information processing heuristics, to distinguish among heuristic strategies, and to demonstrate experimentally the conditions under which differing strategies are favored. If, in contrast, the theorist is committed to a psychoanalytic perspective, and views organizational life as guided by unconscious dynamics, then issues of symbolic authority and unconscious desires might become research realities. Projective devices might serve as the favored research methods. The former research would never reveal a "repressed wish," and the latter would never discover a "cognitive heuristic." Each would find the others' methods similarly specious. To speak, then, of "the organizational system," "leadership styles," or "causal effects" is to draw selectively from the immense repository of sayings (or writings) that constitute a particular cultural tradition.

The present arguments are most fully developed in social constructionist scholarship, that is writings attempting to vivify the socio-cultural processes operating to produce various "pictures" of reality - both scientific and quotidian. Social constructionist offerings are now emerging across the full spectrum of the academy - including organizational science. Such writings are both emancipatory and expository. In their emancipatory function, they single out various aspects of the taken-for-granted world - the existence of a "cold war" or a "space race," the distinction between genders, the existence of mental illness or addiction, for example - and attempt to demonstrate their socially constructed character. They attempt to show, in Bateson's terms, that "the map is not the territory," and thereby free us from the grip of traditional intelligibilities; they invite alternative formulations, the creation of new and different realities. In their expository role, such writings also attempt to elucidate the processes by which various rationalities and realities are created. They sensitize us to our participation in constituting our world, thus emphasizing our potential for communally-organized change in understanding - and thus action.

Language as Social Action

Because language, for the postmodernist, is the child of cultural process, it follows that one's descriptions of the world are not outward simulacres of an inner mirror - that is, reports on one's private "observations" or "perceptions." On the scientific level, this is to say that what we report in our journals and books is not a mirror or map that in some way corresponds to our observations of what there is. Yet, if the modernist view of language as a representational device is eschewed, in what manner can it be replaced? It is in the latter works of Wittgenstein - who, along with Nietzsche, is often viewed as significant precursor of postmodernism - that the major answer is to be located. As Wittgenstein (1963) proposed, language gains its meaning not from its mental or subjective underpinnings, but from its use in action ("language games.") Or, again emphasizing the significant place of human relatedness in postmodern writings, language gains its meaning within organized forms of interaction. To "tell the truth," on this account, is not to furnish an accurate picture of "what actually happened," but to participate in a set of social conventions, a way of putting things sanctioned within a given "form of life." To "be objective" is to play by the rules of a given tradition.

More broadly, this is to say that language for the postmodernist is not a reflection of a world, but is world-constituting. Language does not describe action, but is itself a form of action. To do science, then, is to participate actively within a set of sub-cultural relationships. As scientific accounts are made known to the culture - for example, accounts of organizations as information systems, or managers as information processors - they enter the stock of cultural intelligibilities. They shape our modes of understanding and thus our forms of conduct. To treat the organization as an information system and managers as ideally guided by a rational calculus is to favor certain forms of cultural life and to undermine or prevent others. We shall return to the implications of this view shortly.

The Multi-Culturation of Meaning

With this relational view of language in place, modernism's grand narrative of progress (Lyotard, 1984) is thrown into question. Because scientific theory is not a map of existing conditions, then research does not function to improve the accuracy of the scientific account. Scientific research may lead to technical accomplishments, but it does not improve our descriptions and explanations of reality; descriptions and explanations are, rather, like lenses through which we index our accomplishments. As research operates to displace one scientific theory with another, we are not moving ineluctably "forward" on the road to truth; we are - as many would say - simply replacing one way of putting things with another. Again, this is not to deny that scientific research enhances our capacities for certain kinds of prediction, and generates new forms of technology. However, it is to question the accompanying descriptions and theoretical explanations as in any way giving an accurate picture of events.

It is again the function of scientific language that primarily concerns the postmodern critic. As a modernist byproduct, scientific endeavors work toward a single language - a monologue. Scientific research operates to narrow the range of descriptions and explanations - to winnow out the false, the imprecise, and the inconsistent forms of language, and to emerge with the single best account - that which best approximates the "objectively true." For the postmodernist the results of this effort toward univocality are disastrous in implication. The culture is made up of a rich array of idioms, accounts, and explanations, and these various forms of talk are constitutive of cultural life. To eradicate our ways of talking about love, family, justice, value and so on, would be to undermine ways of life shared by many people. In its search for the "single best account," science operates as a powerful discrediting device - revealing the "ignorance" of the layman in one sector after another. Love is shown to be a myth, families are formed out of the requirements of "selfish genes," values are merely the result of social influence, and so on. For the culture at large, then, scientific activity does not represent progress but often its reverse. From the postmodern perspective, it is imperative to strive toward pluralism of understanding.

TOWARD A POSTMODERN ORGANIZATIONAL SCIENCE

Postmodern critique signifies a general process of de-ligitimation. In the scientific sphere we find a loss of confidence in rational theory, the safeguards of rigorous research methods, the capacity for objective knowledge, and the promise of steady progress in the growth of knowledge. As Burrell and Morgan (1979) maintain, there is a loss in the presumption of an obdurate subject matter - an object of study that is not constituted by the perspectives of investigators themselves. When translated into the sphere of organizational life, the outcome of such arguments is a threat to longstanding assumptions of effective leadership, the scientifically managed transformation of organizations, the promise of steady growth in organizational efficacy, and the capacity of organizational science to produce increments in knowledge of organizational functioning. These are indeed momentous transformations, and if current discussions continue unabated we may soon confront a major evolution in the concept of and practice of organizational science. Yet, while the vast majority of scientists and practitioners may see these emerging threats as tantamount to nihilism, we have also attempted to locate a reconstructive theme. In particular, we have emphasized the replacement of individual rationality by communal negotiation, the importance of social processes in the observational enterprise, the socio practical function of language, and the significance of pluralistic cultural investments in the conception of the true and the good. In short, we have derived a rough outline for a social constructionist view of the scientific effort, a view that is congenial to many of the postmodern critiques but enables us to press beyond the critical moment.

In this final section we turn attention to the possible contours of a positive organizational science within a postmodern context. This task is informed by a range of writings which have already introduced postmodern thought into

organizational science - namely the Organization Studies series on postmodernism and organizational analysis edited by Cooper and Burrell in 1988. Other writers such as Clegg (1990), Gergen (1992), Boje (1992), Ogilvy (1990), and Parker (1992) have also made attempts to join postmodernist thought to management discourse. And in 1992, the topic of postmodernism figured in the annual meetings of the Academy of Management (Thachankary and Pasmore, 1992; Nielsen, 1992; Boland and Tenkasi, 1992; Clegg, 1992; Hetrick and Lozada, 1992; Gephard, 1992; Boje, 1992). These inquiries are also complemented by an impressive array of related work in organizational analysis (Bradshaw-Camball and Murray,1991; Calas and Smirchich, 1991; Martin, 1990; Hassard, 1991; Morgan, 1990; Lee, 1991), the social construction of leadership and organization (Chen and Meindl 1992; Srivastva and Barrett, 1988), and the language of organization theory (Cooperrider and Srivastva, 1987). In an attempt to integrate various strands of this work, and simultaneously elaborate on the potentials of organizational science in a constructionist mode, we center on three areas of special significance.

The Place of Research Technologies

Within the modernist frame, the technologies of empirical research (e.g. experimentation, simulation, attitude and opinion assessment, participant observation, trait testing, statistical evaluation) were largely used in the service of evaluating or supporting various theories or hypotheses about behavior in organizations. Under postmodernism, methodology loses its status as the chief arbiter of truth. Research technologies may produce data, but both the production and interpretation of the data must inevitably rely on forms of language (metaphysical beliefs, theoretical perspectives, conceptions of methodology) embedded within cultural relationships. Thus, research fails to verify, falsify or otherwise justify a theoretical position outside a commitment to a range of empirically arbitrary and culturally embedded conceptualizations.

At the same time, there is nothing about postmodernism that argues against the possibilities of using empirical technologies for certain practical purposes. To be sure, there is widespread skepticism in the grand narrative of progressive science; however, there is no denying that the means by which we now do things called "transmitting information," "automating production," and "quality control," were not available in previous centuries. It is not technological capability (or "knowing how") that is called into question by postmodern critique, but the truth claims placed upon the accompanying descriptions and explanations (the "knowing that"). In this sense, organizational scientists should not be dissuaded by postmodernist arguments from forging ahead with methodological and technological developments. First and foremost, within certain limits, the technologies of prediction remain essential adjuncts to the organization. The prediction of team vs. individual production on a particular assembly line, management turnover in a specified company, and white collar theft in a particular bureaucracy, for example, may be very useful contributions of research

technology within a field of currently accepted realities. In the same way, we may continue to pursue what may be termed technologies of sensitization, that is means of bringing new and potentially useful ideas or practices into an organization. For example, various forms of skills and competency training, on-the-job education, values clarification, and diversity training programs may have beneficial effects from a particular organization's standpoint. Traditional research methods may very well be used to produce results that sensitize the readership to alternative modes of understanding. So long as one does not objectify terms such as "team," "values," "competencies," and the like, but instead, remains sensitive to the parochial forms of reality which these terms sustain, and to the valuational implications of such work, then such technologies are not inconsistent with most postmodern arguments.

While postmodern critique undermines the function of research in warranting truth, and shifts the empirical emphasis to more local and practical concerns, it also invites a broad expansion in the conceptualization of research. As we have seen, postmodern critique favors a constructionist view of scientific research. From this standpoint, rather than being used to buttress the theoretical forestructures of various scientific enclaves, research technologies serve a variety of social functions. Many organizational researchers have already begun to mine the potential of this alternative. For over a decade organizational scholars have been exploring the intersection of research and social action (see, for example, Brown and Tandon, 1983). Gareth Morgan (1983:12-13) has spoken of scientific research as a "process of interaction...designed for the realization of potentialities." Argyris et al.(1985) and Schon (1983) argued for the inextricability of research and social action. It is within this vein that action research (Reason & Rowan, 1981; Torbert, 1991) and "appreciative inquiry" (Cooperrider & Srivastva, 1987) have developed forms of research in which the researcher and the researched collapse their traditional roles to collaborate in what may be viewed as the realization of local knowledges.

Yet, the articulation of local knowledges is not the only function of research within a constructionist frame. Various research strategies may also be used to give voice to otherwise marginalized, misunderstood, or deprivileged groups. Thus far, the scholars have occupied themselves primarily with exploring the ways in which various voices are silenced. For example, Calas and Smirchich (1991) have used feminist deconstructive strategies to expose rhetorical and cultural means by which the concept of leadership has been maintained as a "seductive game." Martin (1990) has looked at the suppression of gender conflicts in organizations, showing how organizational efforts to "help women" have often suppressed gender conflict and reified false dichotomies between public and private realms of endeavor. Mumby and Putnam (1992) have demonstrated the androcentric assumptions underlying Simon's concept of "bounded rationality. And Nkomo (1992) has analyzed how the organizational concept of race is embedded in a Eurocentric view of the world, and should be re-visioned. While this form of analysis is essential to a postmodern organizational science,

innovative practices or methodologies are also required to bring forth the marginalized voices in the organization. Practices must be developed that enable the unspoken positions to be expressed and circulated, and to enter actively into decision making processes.

Finally, in the broadened conception of research, methods may be sought to generate new realities, to engender perspectives or practices as yet unrealized. Thus far, the most favorable technologies for achieving these ends take the form of dialogic methods (for a range of illustrations see Reason & Rowan, 1981; Kilmann et al, 1983; Cooperrider & Srivastva, 1987; Senge, 1990; Schein, 1994). Dialogic methods often enable participants to escape the limitations of the realities with which they enter, and working collaboratively, to formulate modes of understanding or action that incorporate multiple inputs. As Covaleski and Dirsmith (1990) suggest, dialogic research often facilitates the generation of unforeseen relationships. If research is understood in its social capacities, these are but a few of its possible functions.

Toward Critical Reflection

Cultural life largely revolves around the meanings assigned to various actions, events or objects; discourse is perhaps the critical medium through which meanings are fashioned. And, because discourse exists in an open market, marked by broadly diffuse transformations (Bakhtin, 1981; Foucault, 1978), patterns of human action will also remain forever in motion - shifting at times imperceptibly and at others disjunctively. This means that the efficacy of our professional technologies of prediction, intervention, and enrichment are continuously threatened. Today's effective technology may be tomorrow's history. In this sense, prediction of organizational behavior is akin to forecasting the stock market; with each fresh current of understanding the phenomenon is altered.

In this sense we find organizational science as a generative source of meaning in cultural life. In its descriptions, explanations, technologies, and its services to organizations, the science is a source of cultural meanings. And, as advanced above, in generating and disseminating meanings, so does the science furnish people with implements for action. Its concepts are used to justify various policies, to separate or join various groups, to judge or evaluate individuals, to define oneself or one's organization, and so on. In effect, organizational science furnishes pragmatic devices through which organizational/cultural life is carried out. From this standpoint, two vistas of professional activity become particularly salient. Here we consider ideological and social critique; we then turn to the challenge of creating new realities.

Within organizational science in the modernist context, there was little justification for moral or political evaluation of the science itself. The attempt of the discipline was to furnish value neutral knowledge and assessments; if this knowledge was used for unethical or untoward purposes, this was not normally

the concern of the science qua science. Yet, with the postmodern emphasis placed on the pragmatics of language, organizational science can no longer extricate itself from moral and political debate. As a generator and purveyor of meanings, the field inherently operates to the benefit of certain stake holders, activities, and forms of cultural life - and to the detriment of others. Three forms of critical analysis are especially important:

At the outset, organizational science can appropriately develop a literature of self-critique. Required are debates on the cultural implications of its own constructions. With the benefit of the various intellectual movements described above, this form of self-reflection is already under way (see, for example, Cooper, 1989; Kilduf, 1993; Thompson, 1993). To illustrate, Boyacigiller & Adler (1991) show how American values regarding free will and individualism affect how researchers conceptualize organizational behavior. Quoting Stewart (1972), they argue that a strong American cultural assumption is that individuals are (or should be) in control of their actions, they can affect their immediate circumstances, and can influence future outcomes. By contrast, they explain, "many other cultures traditionally see causality as determined by factors beyond their control, factors such as God, fate, luck, government, one's social class, or history...the Chinese invoke 'Joss,' a combination of luck and fate, to explain events."(p.273) The American value orientation explains the unusual preoccupation of researchers in the 1970s and 80s with the "locus of control," and their unquestioning assumption that a strong sense of "internal locus of control" is important if individuals are to control their lives and take responsibility for their actions. The works of feminist scholars cited above, along with those representing various ethnic and political standpoints, also contribute valuably to critical self-reflection. Critical-emancipatory (Alvesson & Willmott, 1992) and radical humanist (Atkouf, 1992) works further extend the horizons. The postmodern transformation not only furnishes a strong warrant for such work, but invites a vigorous expansion of these efforts.

Simultaneous to the valuative appraisal of its own practices, organizational science may also direct its concerns to the dominant and conventional forms of organizational structure and practice. What is to be said in praise of contemporary organizational arrangements, in what ways are they deficient?. This is not simply to extend the modernist quest for the most efficient, productive and profitable organizational structure and practices. Rather, it is to inquire into the entity called "organization" as a form of cultural life. To what extent are the relevant modes of human activity desirable in their present condition, for whom, and in what ways? In certain degree, comparative studies of organizational life carry with them such valuative standpoints. For example, Allen, Miller and Nath (1988) argue that in countries where individualism is highly regarded, actors tend to view their relationship with organizations strategically, whereas in collectivist cultures the individual feels more in harmony with the organization and the environment. There is a strong belief in The American system in the power of the individual to make a difference, which is consistent with the fact that the average American

CEO earns 160 times more than the average American worker, whereas in a more collectively oriented culture such as Japan, the corresponding differential is under 20 (Crystal, 1991). While such explorations sensitize the reader to possible biases in the taken-for-granted world of organizational life, in fact they serve as subtle criticisms of Western modes of life. As we find, however, the door is opened to far more pointed and uninhibited forms of critique - directed both to the discipline and to organizational life more generally.

This is to say that organizational sciences should be active participants in the more general debates about values and goals within the culture, and most specifically, as these are related to organizational practices. Again, this is a venture effectively launched within organizational science. Pettigrew and Martin (1987) have explored the shape of the organization in terms of its inclusion of black Americans; Srivastva (1990) and his colleagues have prompted inquiry into more "appreciative" management practices; Strati (1992) has inquired into the aesthetics of organizational life, and so on. Again, a postmodern organizational science would extend such discussions in manifold ways. At the present juncture, mainstream positivist scientific training provides very few resources for such explorations. Organizational science has specialized in a language of "is" rather than "ought," a language of rational judgment as opposed to an ethics of care (Jacques, 1992; Peck, 1992; Cooperrider and Srivastva, 1990). In this sense, postmodern arguments also favor a revitalization of organizational science curricula.

The Construction of New Worlds

One of the most significant and potentially powerful byproducts of organizational science are its forms of language - its images, concepts, metaphors, narratives and the like. When placed in motion within the culture, these discourses may - if skillfully fashioned - be absorbed within ongoing relations. Such relations thereby stand to be transformed. Not only does this place a premium on reflexive critique within the profession, as just discussed, but it also invites the scientist to enter the process of creating realities. Within the modernist era, the organizational scientist was largely a polisher of mirrors. It was essentially his/her task to hold this mirror to nature. For the postmodernist such a role is pale and passive. Rather than "telling it like it is," the challenge for the postmodern scientist is to "tell it as it might become." Needed are scholars willing to be audacious, to break the barriers of common sense by offering new forms of theory, of interpretation, or intelligibility. The concept of generative theory (Gergen, 1994) is apposite here. Such theory is designed to unseat conventional assumptions, and to open new alternatives for action. Through such theorizing scholars contribute to the forms of cultural intelligibility, to the symbolic resources available to people as they carry out their lives together.

Generative theorizing is already evidenced in the steadily increasing number of contributions drawing from post-structuralist and postmodern analytics to forge

new ways of conceptualizing (and challenging) organizations themselves. In these instances theorists typically view bureaucratic, hierarchical, and rationally controlled organizations as constituted and sustained by the particular range of modernist discourses (both in the academy and the market). As it is variously maintained, because of radical changes in the technological ethos, information intensity, economic globalization, and the like, the modernist organization is no longer viable. The new wave of postmodern, post-structural, and constructionist discourses are then employed as means of describing and creating what is often called the postmodern organization. Much of this work is foreshadowed in Cooper's (1989, 1990) critiques of systemic organization, and on language as an active force in simultaneous processes of organization/ disorganization. Useful compilations of these resources have been made by Reed and Hughes (1992) and Boje, Gephart and Joseph (1995). Importantly, this work also carries on a dialogic relationship with the marketplace, and in this way acquires a constitutive capability (see for example,Berquist, 1993; Handy, 1989; Morgan, 1993 Peters, 1987).

The challenge of generative theory must also be qualified in two ways. First, organizational science has already produced a vast range of theory. From the postmodern perspective these myriad formulations are not a deficit - an indication, in modernist terms, of the pre-paradigmatic and noncumulative character of the science. Rather, each of the existing theories represents a metaphoric construction (Morgan, 1986), available for many purposes in a variety of contexts. Such theories should not be abandoned for the sake of the new and "more relevant." To abandon these discourses is to foreclose on valuable perspectives, and thus, alternatives for action. Generative efforts may include, then, reinvigorating the theories of the past, redefining or recontextualizing their meanings so not to be lost from the repository of potentials.

Second, the move toward generative theory should not be oblivious to issues of use-value, that is, how and whether a given form of language can be absorbed into ongoing relationships. Rather than simply inventing new languages of understanding organizations, there is much to be said for a patient listening. Can the voices of front-line practitioners - struggling to articulate the challenges of the new - be amalgamated into more robust and compelling vehicles of comprehension? There is also much to recommend circumscribed theorizing, that is, descriptions and explanations of more delimited and pointed application. An account of a company's venture into overseas markets, how the basic structure of the organization was changed, how people lost and gained jobs, and the attendant excitements and frustrations, may be vivid and empathically absorbing. The specific details cannot be generalized across time and organization. However, in these concrete detailings, others can more easily locate relevant analogies. In this sense, the language of the circumscribed theory can have greater use-value than the highly general and abstract offering.

To illustrate, consider the sweeping moves toward globalization currently

occupying the business community (see for example, Bartlett & Ghoshal, 1992; Cooperrider & Pasmore, 1991; Weick & Van Orden, 1990). From the present perspective, organizational science should not strive toward a single best, most rational and empirically grounded theory - a grand or totalizing narrative. Rather, a variety of theoretical perspectives is invited. Views of globalization as a "post-fordist model of accumulation" (Albertsen, 1988), or "flexible accumulation" (in Harvey's, 1989, terms), should stand alongside accounts of the global organization as "post-Copernican" (Peters, 1992) in its existence within a network of collectivities. We may also strive toward new forms of articulation, as in the concept of systase (Gebser, 1985). In contrast to the system, the systase is an organization without an absolute center, around which order - as a "patchwork of language pragmatics that vibrate at all times (Lyotard & Thebaud, 1985: 94) - is continuously being established and threatened. At the same time, these overarching conceptualizations need supplementation by accounts at the more concrete level of action. In pursuing this line of argument Joseph (1994) cites the evolution of a transnational nonprofit organization that went global during the 1970s. By the 1980s it became clear that their universal model of socio-economic cultural development could not be applied across cultures. Needed was a reorganization, whereby each local organization autonomously pursued its own model of development. As a result the organization developed a remarkable competency to function as an international network of locally disparate organizations.

Yet, in the end the challenge of constructing new realities is not exhausted through the scholarly and practical actions of the organizational scientist alone. Under welcoming circumstances, organizational actors are fully capable of generating their own theories or "models"- accounts that can be more organically suited to their practices than the vessels of meaning supplied by the organizational scientist. While such local understandings may lack the elegance and sophistication of official theory, in terms of immediate needs they can be more valuable. However, integrating new intelligibilities into organizational life is often a difficult challenge, as illustrated by Astley and Zammuto (1992). Required of the organizational scientist is an expanded range of practices, modes of enhancing generative interchange within the organization and between the organization and the academy. This should also include means of enabling self-reflexive critique of the kind discussed above. In effect, the organizational scientist in this case would not be furnishing a theory, a metaphor, or a narrative, but a means of developing and enriching these resources. Communication in a Multi-National Organization:

An Illustration

Although we have made reference to a substantial number of inquiries congenial with or deriving from a constructionist/ postmodern perspective on organizational science, it will finally prove useful to explore a single case in which a number of these ideas have together been put into practice. The case will also help to demonstrate the potentials and limitations of the approach in an organizational

setting. The case in point took place in response to a "cry for help" from a large, multi national pharmaceutical company. As upper level executives described the problem, the organization had spread over recent decades into some 50 different countries. Considerable difficulty was now experienced both in communicating and coordinating actions effectively. Individuals across the various functions, and across nations, failed either to understand or appreciate each other's perspectives and decisions. Tensions were especially intense between the parent company and the subsidiaries; each tended to be mistrustful of the other's actions.

From a modernist standpoint, it would be appropriate at this juncture to launch a multifaceted research project attempting to determine precisely the origins of the problem, locating the specific individuals or conditions responsible, and based on the results of such study, to make recommendations for an ameliorative plan of action. From a postmodern constructionist standpoint, however, there are good reasons for rejecting this option. Not only is "the problem" continuing to change while the research and intervention are being carried out, but the very idea that there is a single set of propositions that will accurately reflect the nature of the condition (or its "causal" underpinnings) is grossly misleading. Further, to warrant this interpretation with empirical data (true because there are findings), and to present the interpretation as authoritative (as truth beyond perspective), is to perpetrate a bad faith relationship with the organization. Competing realities are suppressed in the name of a "scientific justification."

Given these and other problems with the modernist orientation, we first established a series of generative dialogues in which we, the consultants, served a collaborative role. Interviewing various managers at various levels of the organization, both in the parent company and subsidiaries, we explored their views on various relationships within the organization. Our attempt was not to locate and define "the problem" with ever increasing accuracy, but to elicit discursive resources that would enable the managers to remove themselves from the daily discourses of relationship and to consider their situation reflexively. The hope was, on the one hand, to loosen the sedimented realities giving rise to "the problem," and to multiply the voices they could speak within their relationships, and thus the range of options for action.

Although these discussions ranged broadly, two forms of questioning were common across all: first, we asked the participants to describe instances in which communication and coordination were highly effective. Drawing from Srivastva and Cooperrider's (1990) work on appreciative inquiry, our hope was first, to deconstruct the common sense of failure ("we have a serious problem"), and second, to secure a set of positive instances that might serve as model practices (sources of reconstruction). However, we also inquired about areas in which the managers felt there were specific problems in communication and coordination. The point here was to tap common constructions of the problematic within the organization, that might be used to generate further dialogues (e.g. a rational for

"we need to talk").

The second phase of the project served to introduce conceptual resources. Given the reasoning developed above, we see theoretical discourse (when properly translated), as having catalytic potential within the field of practice. By introducing new metaphors, narratives, or images new options for action are created. To translate the "sacred" language of the profession into the secular argot, we sent letters to each of the participants summarizing their comments. However, these summaries were set in the context of a set of theoretical departures drawing heavily from postmodern organizational theory. On the one hand, the managers' accounts were used to illustrate shortcomings of the modernist organization - its hierarchies, singular logics, clear separation of boundaries, individualistic views of leadership, and the like. Further, positive cases were often linked to postmodern conceptions of organization, including for example, participatory performance, interactive decision making, reality creation, multi-cultural resources, and coordinating interpretations. In effect, by instantiating a set of concepts and images with ongoing practices from the organization, we hoped that the theoretical resources could be appropriated for conversational use within the organization.

In a third phase we attempted to broaden the conversational space. That is, after securing permission from the various participants, we shared the contents of their interviews with other managers. These documents were circulated broadly in an attempt to 1) enrich the range of conversational resources available to the participants, 2) furnish a range of positive images for future use, 3) provide a range of problems that might invite further discussion, and 4) inject into the discussions a common language drawing from contemporary theorizing in the profession. We cannot ascertain at this juncture whether useful discussions are indeed occurring; further exploration is essential And it would surely be cavalier to suppose that these various moves are sufficient for altering the corporate culture at large. At a minimum, both management training must be instituted and alterations instituted in corporate communication if significant change is to beeffected. However, these various interchanges did propell into action a variety of constructionist assumptions, suggested new forms of organizational practice (technology), and fostered an enrichment in organizational theory - all functioning to invite new and transformative conversations.

Toward Catalytic Conversation

The present offering has first attempted to isolate an inter-related set of assumptions forming an important basis for traditional organizational science. By locating these assumptions within the historical context of modernism, it was also possible to consider a variety of arguments currently sweeping the academic terrain, arguments usefully viewed as postmodernist. These latter views, while placing modernist presumptions in jeopardy, also offer an alternative vision of organizational science, one that places a major emphasis on processes of social

construction. From this latter perspective, we outlined a rationale for what we see as a vitally expanded and enriched conception of organizational science.

Yet, these views should scarcely be considered fixed and final. On the contrary, the very conception of a science in the postmodern context is one that emphasizes continuing interchange, continuing reflection and innovation. The present account is thus the beginning of a conversation rather than a termination. Not one of the present arguments is without its problems. For example, Jean Francois Lyotard, has criticized contemporary science for its abdicating concern with knowledge as an end in itself. As he sees it, "knowledge is...produced in order to be sold, it is...consumed in order to be valorized in a new production. Science becomes a force of production, in other words a moment in the circulation of capital." (1984, pgs. 4-5) Is the present search for the utility of a postmodern organizational science not subject to the same critique? Is there a more promising alternative? There are further questions including, for example, the implicit regime of values contained within this analysis, the possibilities of infinite regress in argumentation, and the intellectual and cultural dangers of relativism. Clearly the conversation must continue.