BEYOND EMPIRICISM:

POLICY INQUIRY IN POSTPOSITIVIST PERSPECTIVE

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ABSTRACT

This essay contributes to the growing critique of policy science's
dominant neopositivist methodologies. Not only is neopositivist policy
science seen to have failed in its effort to develop a usable body of
predictive generalizations, it has been unable to supply effective
solutions to social problems. An important part of this failure is
traced to outmoded epistemological assumptions. Drawing on developments
in both science and the sociology of science, in particular the
recognition that the "hard" sciences themselves no longer rest on
traditional concepts of objectivity and proof, the discussion outlines a
postpositivist conception of policy science designed to address the
multidimensional complexity of social reality. As a discursive
orientation grounded in particular reason, the postpositivist approach
situates empirical inquiry in a broader intepretive framework. More
than just an epistemological alternative, the approach is offered as a
better desciption of what social scientists actually do in practice.
The essay closes with a brief discussion of the implications of a
postpositivist approach for both a socially relevant policy curriculum
and a democratic practice of policy inquiry.

The social sciences, as empirical sciences of society, have

largely failed (Giddens 1995; Lemert 1995; Wallerstein et al. 1966).

They have neither developed anything vaguely resembling a predictive

"science" of society, nor have they been able to provide effective

solutions to pressing social and economic problems (deLeon, 1988; Baumol

1991). Acknowledging the failure, a number of policy scholars have

devoted considerable thought to the question of what might constitute

"usable knowledge" (Lindblom and Cohen, 1979; Fischer 1995). Or, stated

more concretely, these scholar have asked: How can we keep the endless

flow of research reports from gathering dust in the file cabinet?   Thus far, the effort has not been especially impressive (Lindblom, 1990).

This is not to say that the social sciences have had no impact on public issues. To the contrary, the influence of social science is everywhere to be found in contemporary political discourse. But the role has been more to **stimulate** the political processes of policy deliberation than to provide answers or solutions to the problems facing modern societies. While such deliberation is generally acknowledged to be important to effective policy development, this "enlightenment function" is not the analytic mission the policy sciences have set for themselves (Weiss 1990). More ambitiously, the policy sciences have sought to develop methods and practices designed to **settle** rather than stimulate debates. Here I shall argue that this traditional understanding of the policy-analytic role represents an epistemological misunderstanding of the relation of knowledge to politics. Further, I will attempt to show that the continued reliance on the narrow methodological perspective that informs this orientation hinders the field's ability to do what it can--and should--do: Improve the quality of policy argumentation in public deliberation.

Toward this end, the essay is divided into three parts. The first part locates policy analysis's problems in its neopositivist methods and the technocratic orientation to which they have given rise. [1] The discussion traces the failures of the field to its understanding of the object of inquiry and its narrowly empirical approach to research. In this context, the neopositivist social sciences are seen to imitate an understanding of "science" that is no longer unquestioningly accepted even in the so-called hard sciences. In the second part of the paper the analysis turns to the postpositivist alternative. [2] For the postpositivist social scientist, the solution to this epistemological problem is to turn from the traditional understanding of scientific

proof or verification to a discursive, contextual understanding of social inquiry. Instead of merely suggesting postpositivism as an alternative epistemological orientation, part two offers this "argumentative turn" as a better description of what social scientists already do. Finally, drawing these strands together, part three examines the more concrete implications of the approach for policy inquiry. Rather than altogether rejecting the empirical methods of the social sciences, I argue that the issue is how to situate them within the context of normative concerns that give their findings meaning. The paper concludes with a discussion of the implications of a postpositivist epistemology for the practice of policy analysis.

I.

MAINSTREAM POLICY ANALYSIS: THE EPISTEMOLOGICAL PROBLEM

Neopositivism (or logical empiricism) has supplied the epistemological ideals of the contemporary social and policy sciences (Hawkesworth 1988; A theory of knowledge put forth to explain the concepts and methods of the physical and natural sciences, neopositivism has given shape as well to a social science in pursuit quantitatively replicable causal generalizations (Fay 1975). Most easily recognized as the stuff of the research methodology textbook, neopositivist principles emphasize empirical research designs, the use of sampling techniques and data gathering procedures, the measurement of outcomes, and the development of causal models with predictive power (Miller 1993; Bobrow and Dryzek 1987). In the field of policy analysis, such an orientation is manifested in quasi-experimental research designs, multiple regression analysis, survey research, input-output studies, cost-benefit analysis, operations research, mathematical simulation models, and systems analysis (Putt and Springer, 1989; Sylvia, et al. 1991).

The only reliable approach to knowledge accumulation, according to this epistemology, is empirical falsification through objective hypothesis-testing of rigorously formulated causal generalizations (Popper, 1959: Sabatier and Jenkins-Smith 1992:231; Hofferbert 1990). The goal is to generate a body of empirical generalizations capable of explaining behavior across social and historical contexts, whether communities, societies, or cultures, independently of specific times, places, or circumstances. Not only are such propositions essential to social and political explanation, they are seen to make possible effective solutions to societal problems. Such propositions are said to supply the cornerstones of theoretical progress.

Underlying this effort is a fundamental positivist principle mandating a rigorous separation of facts and values, the principle of the "fact-value dichotomy" (Bernstein 1976; Proctor 1991). According to this principle, empirical research is to proceed independently of normative context or implications. Because only empirically based causal knowledge can qualify social science as a genuine "scientific" endeavor, social scientists are instructed to assume a "value-neutral" orientation and to limit their research investigations to empirical or "factual" phenomena. Even though adherence to this "fact-value dichotomy" varies in the conduct of actual research, especially at the methodological level, the separation still reigns in the social sciences. To be judged as methodologically valid, research must at least officially pay its respects to the principle (Fischer 1980).

In the policy sciences the attempt to separate facts and values has facilitated a technocratic form of policy analysis that emphasizes the efficiency and effectiveness of means to achieve politically established goals. Much of policy analysis, in this respect, has sought to translate inherently normative political and social issues into technically defined ends to be pursued through administrative means. In

an effort to sidestep goal-value conflicts typically associated with policy issues, economic and social problems are interpreted as issues in need of improved management and program design; their solutions are to be found in the technical applications of the policy sciences (Amy 1987). Often associated with this orientation has been a belief in the superiority of scientific decision-making. Reflecting a subtle antipathy toward democratic processes, terms such as "pressures" and "expedient adjustments" are used to denigrate pluralistic policymaking. If politics doesn't fit into the methodological scheme, then politics is the problem. Some have even argued that the political system itself must be changed to better accommodate policy analysis (Heineman et al. 1990).

In the face of limited empirical successes, neopositivists have had to give some ground. Although they continue to stress rigorous empirical research as the long-run solution to their failures, they have retreated from their more ambitious efforts. Today their goal is to aim for propositions that are at least **theoretically** proveable at some future point in time. An argument propped up by the promise of computer advances, it serves to keep the original epistemology in tack. But the modification misses the point, as postpositivists are quick to point out. The problem is more fundamentally rooted in the empirical social scientists's misunderstanding of the nature of the **social**. As we shall see, it is a misunderstanding lodged in the very concept of a generalizable, value-free objectivity that neopositivists seek to reaffirm and more intensively apply.

POSTPOSITIVISM: THE CRITIQUE OF EMPIRICISM

The postpositivist challenge is rooted in both the natural sciences and the history and sociology of science. With the advent of quantum mechanics and chaos theory in physics and evolutionary theory in the biological sciences, growing numbers of scientists have come to

reject the Parmenidean worldview in favor of the Heraclitean conception of flux (Toulmin 1990). From quantum theory and its postulate of indeterminacy we have learned that various aspects of the atomic level of reality are so influenced (or co-determined) by other dimensions of the same phenomena that such processes can no longer be described as determinate or predictable. Moreover, such research has led some physicists to argue that the explanation of the behavior of a particle depends in signifcant part on the vantage point from which it is observed (Galison 1997). That is, in explaining important aspects of the physical world, **where** you stand can influence **what** you see. Relatedly, chaos theory has demonstrated that an infintesimal change in any part of a system can trigger a transformation of the system at large (Kelllert 1993; Gleick 1987). Such empirical phenonena are thus better defined as "participatory interminglings" than perceptions of objective things standing apart from human subjectivity. In short, the traditional understanding of the **physical** world as a stable or fixed entity is no longer adequate. For neopostpositivism, this poses a fundamental problem: it loses its firm epistemological anchor.

On the heels of these discoveries arrived new historical and sociological observations about the nature of scientific practices. From these "post-empiricist" studies we have learned that both the origins and practices of modern science are rooted as much in social and historical considerations as they are in the disinterested pursuit of truth. Historical studies of science, for example, have shown the origins of positivist epistemology to be a response to the ways in with the Reformation and the religious wars of the 15th and 16th centuries destroyed the foundations of certainty, dictated up to that time by the church. For those who believed that humankind could not live well without the existence of fixed categories of natural and social life-- categories that impose themselves on everybody because of their

undeniable validity--this collapse of authority was a primary concern (Wagner 1995).

In an effort to establish a new basis for the determination of truth, which could serve as a new foundation for social stability, Descartes and his followers sought to anchor knowledge to the confirmation of empirical experience. Revealing the interplay of these social and technical concerns, such research not only shows the ways in which what we call knowledge is historically conditioned, but also how other periods have defined knowledge in quite different ways. Having emerged to address problems in a specific socio-historical context, positivist epistemology, in short, is not necessarily relevant to all other contexts. That is, it should **not** be taken as a universal grounding for scientific practice as a whole. Its historical role in the development of modern industrial society and its contemporary technologicatic variant, postindustrial society, in no way offsets the point. Rather, it demonstrates how a particular conception of knowledge can condition or mediate the very shape of a society.

Beyond the historical dimension, sociological investigation has shown the elements of empirical inquiry--from observation and hypothesis formation through data collection and explanation--to be grounded in the theoretical assumptions of the sociocultural practices through which they are developed (Rouse 1987). Detailed scrutiny of research practices turns up something quite at odds with the conventional view of the lone, disinterested scientist in the laboratory struggling to uncover the objective laws of nature (Latour and Woolgar, 1979; Knorr-Cetina and Mulkay 1983). Time and time again sociological research has documented the extent to which science is as much a socio-cultural activity as a technical enterprise. Indeed, full understanding of scientific findings is incomprehensible apart from the socio-cultural settings which give them purpose and meaning. From Woolgar (1979) and

Collins (1985) to Foucault (1980) and Latour (1987), scientific inquiry is recognized as a social practice contextually mediated through symbolic means. Its knowledge emerges as a socio-technical construction set in ongoing specific historical and linguisitic contexts of conjecture and refutation (Gottweis 1997). Scientific accounts have to be understood as explanations proffered by a specific community of inquirers situated in particular places and times.

From such investigations we have come to see the degree to which the application of scientific methods to particular problems involves social and practical judgments. The model form of the experiment, for example, proves to be more than a matter of applying a causal research design to a given reality. As often as not, as Latour has shown, reality is discovered to be fitted to the empirical instrument. In some cases, scientists get their results by identifying and organizing those parts of reality that are amenable to the research design. In other cases, they go beyond such selection processes to restructure the social context (Rouse 1987). Given such considerations, a proper assessment of research results has to go beyond an appraisal of empirical data to an examination of the practical judgments that shape both the instrument and the object. Although such judgments structure and guide the research process, they are almost never part of the research paper. The formal write-up of the results is organized to conform to the official judgment-free logic of science.

Nowhere is this assumption-laden character of social reality more problematic than in the case of the principle of falsification (Popper 1959). With the recognition of the socially constructed character of a given reality, neopositivism's theory of falsification loses its fixed anchor to the social world. Because the empirical object the researcher seeks to measure is rooted in his or her own understanding of it (i.e., assumptions, expectations, and experience of

the very object), efforts to treat the world and its representations as isomorphic can only lead to misrepresentations (Hawkesworth 1988; and Bernstein 1976). In the absence of firm connections between theoretical assumptions and empirical correspondence rules, that which is taken to be the "brute data" of the social realm must itself take its meanings from theoretical constructions, often the same ones undergoing the empirical test (Hawkesworth 1988). That is, there can be no complete "factual" description entirely independent of the social circumstances under which it is made, science in effect measures an **interpretation** of the object rather than the object per se (Natter et al. 1995). Under such circumstances, the possibility of conclusive **dis**proof has to be largely ruled out.

Added to these difficulties is the problem of complexity. Because of the ocean of phenonmenon and experiences that constitute the social realm, empirical research proceeds through the isolation and correlation of a small number of variables. Given both inconclusiveness of available data, it is technically impossible to fully isolate an "if--then" hypothesis from the vast realm of untested ancillary propositions and statements that make the deduction of such a hypothesis possible (McCloskey 1985). Put in a different way, without a fully tested theory from the outset, researchers can never be entirely sure of what they have predicted and measured. Under these conditions, as Scriven (1986: 28) argues, most of what goes by the name of scientific generalization can only be rejected by a rigorous application of the falsification principle. Although seldom acknowledged in the methodology textbooks, social scientists can only **interpret** the meaning of their results against a range of explanations and understandings that themselves are products of other interpretations. Social and political theories, for this reason, remain radically "underdetermined."

Finally, the critique of falsification penetrates into the very conduct of the scientific community itself. Basic to the theory of falsification is the contention that science represents a critical, nondogmatic attitude guaranteeing the constant surveillance of empirical propositions. But the claim scarcely corresponds with the historical evidence. Historical studies of scientific practice have clearly documented the scientific community's reluctance to disregard or reject discredited propositions (Rouse 1987). Neither persistent empirical anomalies nor unresolved problems turn out to be enough to ensure the rejection of specific theories. Like other forms of inquiry, science is found to be rooted in the human conventions of the community of scholars struggling to resolve particular problems under specific historical conditions. Offering no ready court of appeals, the promise of intersubjective reliability can no longer be held out as insurance against either human fallibility or social convention. Falsification not only fails as a guide to empirical research design, but as a theory of professional conduct as well.

None of this means that science, whether physical or social, should not be taken seriously. It means rather that the thing we call science has to be understood as a more subtle interaction between physical and social factors. Whatever constitutes scientific truth at any particular time has to be seen as more than the product of empirically confirmed experiments and tests. Such truths are better described as scientific **interpretations** or **beliefs** based on an amalgam of technical and social judgments. In some cases, the technical judgments are more decisive than in others, but both technical and social considerations are always involved (with the mix between the two remaining an question to be empirically examined case by case). Influenced by many more factors than the mere pursuit of truth, such claims have to be understood as the relative product of a community of

practitioners who establish the evidential criteria and guide the research processes through which truth claims are decided. The communities that render these opinions, as historical and sociological analysis makes clear, constitute hierarchies of practitioners organized in significant part around their own internal power structures, interests, and status claims (Kuhn 1970). Such studies also help us recognize that scientific communities are not the only bodies capable of making judgments about the same reality. From competing perspectives, alternative groups grounded in other forms of rationality can make valid judgments about the same phenomena. Historically, the determination of whose rationality prevails has largely been decided by those wielding the most influence or power. Invariably these determinations are subject to future challenges and new technical findings have always played an important role in such confrontations. But their role has generally been mediated by changing beliefs. Contrary to the official story, new findings alone have seldom been decisive from the outset. The advance of knowledge, in short, cannot be understood as a linear process driven by the better experiment.

From this perspective, there can be no such thing as a "fact" as the term is conventionally understood. Facts, in the natural as well as the social world, depend upon underlying assumptions and meanings. What is taken to be a fact is in effect the decision of a particular community of inquirers who work within a set of theoretical presuppositions to which they subscribe. Customarily, of course, we simply accept a particular view of the world; the presuppositions which undergird it seldom come into play. This makes it possible, at least most of the time, to treat large parts of the world as natural and given. While such an organization of reality facilitates communication and understanding between social actors, it cannot serve as an adequate basis for social research. Beyond seeking to explain a "given" reality,

social science must also attempt to explain how social groups construct their own understandings of that reality. Not only do such constructions constitute the most basic level of social action, their implications are fundamental to an understanding of the processes of social change, without which we would have little need for social science. The failures of social science can in significant part be attributed to the neglect of these subjective processes.

Nowhere are the implications of this critique more important than in the study of politics and public policy. As the network of presupposed assumptions underlying social and political propositions are reflections of particular social arrangements, the assumptions are themselves influenced by politics and power. Not only is one of the basic goals of politics to change an existing reality, much of what is important in the struggle turns on the sociopolitical determination of the assumptions that define it. As many scholars have made clear, policy politics is itself about establishing definitions of and assigning meaning to social problems (Edelman 1988; Gusfield 1981). Thus, the effort to exclude meaning and values from the work of the policy analyst cuts the very heart out of political inquiry. Neopositivism, in its search for such value-neutral generalizations, have sought to detach itself from the very social contexts that can give its data meaning.

Seen in this light, empirical findings can at best only be relevant to the particular socio-historical understanding of reality from which they are abstracted. Moreover, positivism's attempt to empirically fix a given set of social and political arrangements tends to reify a particular reality. By neglecting or diverting attention from the struggles to challenge and change such arrangements, social science--wittingly or unwittingly--serves as much to provide ideological support for a configuration of power as it does to explain it.

Both the interpretive nature of the social object and the meaning of the empirical findings themselves render neopositivist science an easy target for those who wish to dispute the validity of specific experiments or object to particular claims. At best, such research can offer a rigorous and persuasive argument for accepting a conclusion. But such an argument cannot prove the issue. Those who dispute a claim can easily find problems in the myriad social and technical interpretations and assumptions embedded in both the research design and practice. Nowhere is this more obvious than in the endless confrontations over the validity of claims made by environmental scientists. Such disputes have given rise to a full-scale politics of "counter-expertise" (Fischer 1995). Working with the **same** findings, groups on both sides of an issue easily construct their own alternative interpretations of the evidence.

This is not to say that it is never worth carrying out an empirical test. The postpositivist objective is not to reject the scientific project altogether, but to recognize the need to properly understand what we are doing when we engage in any form of research. Postpositivism, in this respect, can be explained as an attempt to understand and reconstruct that which we are already doing when we engage in scientific inquiry. Recognizing reality to be a social construction, the focus necessarily shifts to the nature of situational context and to the discursive processes which shape the construction. We turn at this point to that alternative understanding.

II.

POSTPOSITIVSM: FROM PROOF TO INTERPRETATION

In view of this sociology of scientific practices, postpositivism focuses on science's **account** of reality rather than on reality itself. Which is not to say there are no real and separate objects of inquiry independent of the investigators. It is not the objects or their

properties per se, but rather the vocabularies and concepts used to know and represent them that are socially constructed by human beings. Scientific accounts are produced by observers with different ideational frameworks, types of educational training, research experience, perceptual capacities, etc. The goal is to understand how these varying cognitive elements interact to discursively shape that which comes to be taken as knowledge. Toward this end, postpositivism's reconstruction of the scientific process is founded on a "coherence" theory of reality that emphasizes the finite and temporally bounded character of knowledge (Brown 1977; Stockman 1983).

In contrast to neopositivist correspondence theory which sees scientific concepts as direct referents of reality, coherence theory addresses the indeterminedness of empirical propositions. [3] Seeking to describe a world that is richer and more complex than the neopositivist theories constructed to explain it, coherence theory seeks to capture and incorporate the multiplicity of theoretical perspectives and explanations that bear on a particular event or phenomenon. To use Toulmin's (1983:113) words, postpositivist coherence theory seeks to bring to bare "the range and scope of interpretive standpoints that have won a place." Along side quantitive analysis, postpositivist orientation includes the historical, comparative, philosophical, and phenomenological perspectives. Quantitative empirical research, in the process, loses it privileged claim among modes of inquiry. While it remains an important component of theory construction, it no longer offers the crucial test.

Given the perspectival nature of the categories through which social and political phenomena are observed, knowledge of a social object or phenomenon emerges from a discursive interaction--or dialectical clash--of competing interpretations. Whereas consensus under neopositivism is inductively anchored to the reproduction of

empirical tests and statistical confirmation, consensus under

postpositivism is approached through the discursive construction of a

synthesis of competing views (Danziger 1995). For postpositivists, the

empirical data of a neopositivist consensus is turned into knowledge

through interpretative interaction with other perspectives. Only by

examining such data through conflicting frameworks can the

presuppositons that give it meaning be uncovered. For the

postpositivist, the crucial debates in politics are seldom over data per

se, but rather the underlying assumptions which organize them. Such

deliberations produce new understandings in a process better framed as a

"learned conversation" than the pursuit of empirical proof. Emphasis

shifts from the narrow concerns of empirical-analytic theory to the

development of "a rich perspective" on human affairs (Toulmin 1990:27).

Knowledge, in this evolving conversation, is more accurately

understood as consensually "accepted belief" than as proof or

demonstration (Paller 1989). Such beliefs emerges through an

interpretive forging of theoretical assumptions, analytical criteria,

and empirical tests discursively warranted by scholarly communities

(Lauden 1977). With one decisive exception, this description is

consistent with the neopositivist understanding of the process.

Instead of understanding these beliefs as the empirical outcomes of

intersubjectively reliable tests, the postpositivist sees them as the

product of a chain of interpretive judgments, both social and technical,

arrived at by researchers in particular times and places (Bernstein

1983). From this perspective, social scientific theories can be

understood as assemblages of theoretical presuppositions, empirical

data, research practices, interpretive judgements, voices, and social

strategies (Deleuze and Guatarri 1987). One of the primary strengths of

a theory, in this respect, is its ability to establish discursive

connections and contrive equivalences between otherwise disparate elements, as well incorporating new components.

While the methodological principles of a postpositivist social science cannot be as firmly fixed as those of neopositivism, such research does not lack rigor. In many ways, the adoption of a multimethodological approach opens the door to a more subtle and complex form of rigor. Instead of narrowly concentrating on the rules of research design and statistical analysis (which too often passes for empirical rigor), the postpositivist framework involves the exercise of a multimethodological range of intellectual criteria, both qualitative and quantitative. Basic is the recognition that an epistemology which defines knowledge and rationality in terms of technique, be it logical deduction or empirical falsification, is simply too narrow to encompass the multiple forms of reason manifested in scientific practices. The interpretive judgments which are characteristic of every phase of scientific investigation, as well as the cumulative weighing of evidence and argument, are too rich and various to be captured by the rules governing inductive or deductive logic (Collins 1987). For this reason, postpositivism substitutes the formal logic of neopositivism with the informal deliberative framework of practical reason.

Before turning to practical reason, it is important to note that in recent years some attention has been given to these qualitative concerns. For example, a number of leading empiricists have begun to concede ground to qualitative methods (See Ann Chih Lin in this Symposium). In particular, the work of Koehane, King, and Verba (1994) has generated a good deal of discussion. Given that quantitative social scientists have long denied or denigrated the validity of qualitative methods, interpretive theorists have some reason for optimism. But it can only be a qualfied optimism. While acknowledging qualitative methods, authors such as Koehane, King, and Verba have sought only to

incorporate them on terms amenable to the logic of neopositivist research. That is, qualitative research has to be designed and conducted in such a way as to render its results empirically testable. While qualitative research can indeed serve as a corrective or a corraborative perspective for the mainstream project and its problems, the approach offered by Koehane and colleagues misunderstands qualitative research. More than just another way of collecting data, such interpretive research, as we have seen, rests on an altogether different epistemological understanding of social reality and its construction. To the degree that social constructivism accurately conceptualizes social explanation, this attempt to **neopositivize** qualitative research only reproduces the very problems it has set out to solve. These new efforts, as such, are best understood as one more effort to patch up the cracks in a troubled enterprise.

As we have argued in this section, the formal logic scientific deduction is too confining for a methodology that needs to meaningfully combine quantitative and qualitative orientations in a new methdological configuration. We turn at this point to the postpositivist alternative, informal logic and practical discourse.

PRACTICAL REASON AS REASONING-IN-CONTEXT

The search for an alternative begins with the recognition that that the formal models of deductive and inductive reason misrepresent both the scientific and practical modes of reason. As Scriven (1987) writes, "the classical models of reasoning provide inadequate and in fact seriously misleading accounts of most practical and academic reasoning--the reasoning of the kitchen, surgery and workshop, the law courts, paddock, office and battlefield; and of the discliplines." Nor is most of such reason best interpreted as an **incomplete** version of the deductive reasoning of logic or mathematics, long the standard interpretation of social scientific explanation. They are more

appropriately conceptualized as forms of informal logic with their own rules and procedures. In pursuit of an alternative methodological framework, postpositivists have returned to the Aristotelian conception of "phronesis," or the informal logic of practical reason.

Informal logic, designed to probe both the incompleteness and imprecision of existing knowledge, reconceptualizes our understanding of evidence and verification in investigations that have either been neglected or mistreated by formal logics (Scriven 1987). Countering social science's emphasis on generalizations, informal logic probes the argument-as-given rather than attempting to fit or reconstruct it into the confining frameworks of deduction and induction. Toward this end, it emphasizes an assessment of the problem in its particular context, seeking to decide which approaches are most relevant to the inquiry at hand.

By expanding the scope of reasoned argumentation, the informal logic of practical reason offers a logical framework for developing a multimethodological perspective. Most fundamental to practical reason is the recognition that the kinds of arguments relevant to different issues depend on the nature of those issues: What is reasonable in clinical medicine or jurisprudence is judged in terms different from what is "logical" in geometrical theory or physics (Toulmin 1990). Basic to such judgment is a sensitivity to the contextual circumstances of an issue or problem. Practical reason, as such, distinguishes contextually between the world of theory, the mastery of techniques, and the experiential wisdom needed to put techniques to work in concrete cases. In doing so, it supplies a conception of reason that more accurately corresponds to the forms of rationality exhibited in real-world policy analysis and implementation, concerns inherently centered around an effort to connect theory and techniques to concrete cases.

Practical deliberation thus seeks to bring a wider range of evidence and arguments to bear on the particular problem or position under investigation. As Hawkesworth (1988) explains, "the reasons offered in support of alternatives marshal evidence, organize data, apply various criteria of explanation, address multiple levels of analysis with varying degrees of abstraction, and employ divergent strategies of argument." But the reasons given to support "the rejection of one theory do not constitute absolute proof of the validity of an alternative theory." Through the processes of deliberation and debate, a consensus emerges among particular researchers concerning what will be taken as valid explanation. Although the choice is sustained by reasons that can be articulated and advanced as support for the inadequacy of alternative interpretations, it is the practical judgment of the community of researchers and not the data themselvesf that establishes the accepted explanation. Such practical judgments, rather than supposed reliance on proof unto itself, provides the mechanism for not only identifying the incompetent charlatan, but investigating the more subtle errors in our sophisticated approximations of reality. To be sure, the informal logic of practical reason cannot guarantee the eternal verity of particular conclusions, but the social rationality of the process is far from haphazard or illogical. Most important, it supplies us with a way of probing the much neglected contextual dependence of most forms of argumentation. (Scriven 1987).

As a contextual mode of reason, practical reason takes place within a hermeneutic "circle of reason" (Bernstein 1983). To probe specific propositions requires that others must be held constant. Such analysis, however, always occurs within a context of reference grounded in other sets of presuppositions. Moving outside of each framework to examine it from yet new frames permits the inquirer to step beyond the limits of his or her own languages and theories, past experiences and

expectations. This increases the number of relevant perspectives, but need not lead to a hopeless relativism, as is often thought. Because the hermeneutic process is typically initiated by external stimuli in the object-oriented world, critical interpretations are "world-guided" and can never be altogether detached from the world (Williams 1985:145). That is, in the words of Bernstein (1983:135), the process "is 'object' oriented in the sense that it directs us to the texts, institutions, practices, or forms of life that we are seeking to understand." Such empirical stimuli cannot compel definitive interpretations, as the empiricist would have us believe, but they do work to limit the number of plausible interpretations. While the possibility of multiple interpretations remains, there are thus boundaries or limits to what can count. At minimum, an interpretation that bears no plausible relationship to the object-world has to be rejected.

Given the limits imposed by fallibility and contingency, the informal probative logic of practical reason speaks directly to the kinds of questions confronted in most political and policy inquiry. Bringing together the full range of cognitive strategies employed in such inquiry, it judges both the application and results of such methods in terms of the contexts to which they are applied. Recognizing social context to be a theoretical construct, as well as the underdetermination of our available knowledge, practical deliberation focuses on the competing understandings of a particular problem and the range of methods appropriate to investigate them. Framing the analysis around the underlying presuppositions, postpositivist analysis seeks to anticipate and draw out the multiple interpretations that bear on the explanation of social and political propositions.

III.

POLICY-ANALYTIC IMPLICATIONS: THE EMPIRICAL IN NORMATIVE CONTEXT

The kinds of epistemological concerns presented above are quite different from those normally encountered in policy analysis and not at all well received in some quarters. In most cases the critical question raised rests on with the status of the empircal: What happens to empirical research in a discursive approach? Although many postpositivist writers have not been clear enough on this question, one point is certain--a discursive model of policy inquiry must include empirical investigation. Indeed, rather than rejecting the empirical, the issue here concerns its relationship to the normative. How the empirical is situated in a larger set of normative concerns that give its findings meaning is the question that must be addressed.

What, then, does it mean to say that policy analysis should embrace this discursive or "argumentative turn" (Fischer and Forester 1993). From science studies we learn that scientific conclusions are in fact arguments designed to convince other scientists to see a particular phenomenon one way or another. Although findings are traditionally put forth in the language of empirical verification--advanced as evidence that a proposition is true or false--quantitative data are only a part of a broader set of factors that go into structuring the conclusion. As we have discussed earlier, behind these conclusions are a multitude of interpretive judgments, both social and technical. The conclusion as a whole can in fact be better understood as an argument rather than an inductive or deductive proof.

What does it mean for policy analysis to say that its social-scientific conclusions are arguments? One of the first policy scholars to call for such a reorientation is Giandomico Majone. The structure of a policy argument, Majone (1989:63) writes, is typically a complex blend of factual statements, interpretations, opinion, and evaluation. The argument provides the links connecting data and information with the conclusions of an analysis. Having recognized the epistemological

shift, however, Majone has not sufficiently clarified the normative
dimensions that intervene between findings and conclusions. From the
preceding discussion we can now formulate the task as a matter of
establishing interconnections among the empirical data, normative
assumptions (that structure our understanding of the social world), the
interpretive judgments involved in the data collection process, the
particular circumstances of a situational context (in which the findings
are generated and/or to which the conclusions apply), and the specific
conclusions. The acceptability of the conclusions ultimately depends on
the full range of interconnections, not just the empirical findings.
While neopositivists argue that their approach is more rigorous and
therefore superior to less-empirical, less-deductive methods, this model
of policy argumentation actually makes the task more demanding and
complex. Not only does it encompass the logic of empirical
falsification, it includes the equally sophisticated normative questions
within which it operates. The researcher still collects the data, but
now has to situate or include it in the interpretive framework that
gives it meaning. No longer is it possible to contend that such
normative investigations can be ignored, as if they somehow relate to
another field of inquiry.

   Elsewhere I have suggested a multimethodological framework for
integrating these concerns. In <u>Evaluting Public Policy</u>, I have offered
a logic of four interrelated discourses that outline the concerns of a
more comprehensively rational policy evelution (Fischer 1995).
Extending from the concrete questions concerning the efficency of a
program up through its situational context and the societal system to
the abstract normative questions concerning the impact of a policy on a
particulary way of life, the scheme illustrates how empirical concerns
can be brought to bear on the full range of normative questions.

TOWARD A POLICY SCIENCE OF DEMOCRACY: INSTITUTIONS AND PRACTICES

Beyond the issues of methodology, the postpositivist model of practical deliberation holds out important implications for transforming the institutional structures and practices of policymaking more generally. Most important is its potential democratizing influence on policy evaluation, an idea not as unique as it might sound. Although policy analysis has primarily emerged as a technocratic discipline, the concern for democracy has always been present. Indeed, as early as 1951, Lasswell put the discipline forward as the "policy science of democracy." Postpositivism is an effort to make good on that claim. In this closing section, we examine some of the larger normative and political issues which frame this effort.

First, a deliberative model of policy analysis extends the analytic goal beyond the technical efficiency of the governing institutions to include an assessment of the political interests and needs of the larger political community. From this perspective, the political community is inhabited by citizens who "live in a web of interdependencies, loyalties, and associations" in which "they envision and fight for the public interest as well as their individual interests" (Stone 1988:vii). Unlike most contemporary policy analysis, the postpositivist approach would not "take individual preferences as 'given'...but would instead have to account for where people get their images of the world and how they shape their preferences." That is, in contrast to the mainstream approach which provides no meaningful way of talking about how people fight over visions of the public or community interest, a postpositivist approach emphasizes discourse as "a creative and valuable feature of social existence" (Stone 1988:4). Ideas thus move to the center of policy evaluation. They are the fundamental media of all political conflicts; they make possible the shared meanings and assumptions that motivate people to action and weld individual striving into collective causes (Reich 1988). Policymaking, based on

strategically crafted arguments, is thus reconceived as a constant struggle over the very ideas that guide the ways citizens and policy analysts think and behave, the boundaries of political categories, and the criteria of classification--what John Forester and I (1987) have elsewhere called the "politics of criteria." Basic to this approach must be the recognition that analytical concepts are themselves based on political claims and cannot be granted privileged status.

Because policy ideas are arguments that favor different ways of seeing and relating to social problems, their evaluation must include an assessment of their transformational impacts on the thought and deliberations of the political community. The enduring ideas of politics, offering criteria into which citizens read competings meanings, serve as measures against which community aspirations are interpreted and judged. The job of the analyst is to tease out the normative conflicts lurking behind the often equally plausible interpretations of the same abstract goal or value. In the process, various modes of defining policy problems have to be recognized as competing languages in which people offer and defend conflicting interpretations (Danziger 1995; Stone 1988). In particular, attention has to be paid to context. As Healey (1993:238) writes, "knowledge for action, principles of action, and ways of knowing are actively constituted in the particularities of time and place." "Good" and "right" actions are "those we can come to agree on, in particular times and places, across our diverse differences in material conditions and wants, moral perspectives, and expressive cultures and inclinations." The fundamental goal of such policy analysis can be reformulated as discovering ways of "living together differently but respectfully" (Healey 1993: 238).

Especially important, in this view, is the need to rethink the relationships of the roles of the analysts, citizens and the decision

makers. As critical studies of social epistemology make clear, a more sophisticated understanding of the nature of an open and democratic exchange must confront the need to bring these roles together in a mutual exploration. Experts must establish a participatory or collaborative relationship with the citizen/client (Hawkesworth, 1988; Schon, 1983; Healey 1997). Methodologically, an approach capable of facilitating the kind of open discussion essential to a participatory context is needed. Such a method would provide a format and a set of procedures for organizing the interactions between policy experts and the lay citizens that they seek to assist. Albeit in quite different ways, writers such deLeon (1992), Durning (1993), Laird (1993) and Fischer (1990) have called for such a "participatory policy analysis."

In this formulation, the expert serves as "facilitator" of public learning and political empowerment. Rather than providing technical answers designed to bring political discussions to an end, the task of the analysts-as-facilitator-is to assist citizens in their efforts to examine their own interests and to make their own decisions (Fischer 1990; Caldwell 1975). The facilitator seeks to integrate the **process** of evaluation with the empirical requirements of technical analysis. Bringing together the analytical perspectives of social science and the competing normative arguments of the relevant participant in the policymaking process, the interaction can be likened to a conversation in which the horizons of both citizens and social scientists are extended through a mutual dialogue (Dryzek 1982).

One approach to such a facilitative orientation has been called the "counsel model." Designed to outline a "postpositivist concept of objectivity," Jennings (1987) has put the model forward to reshape the the relationship of policy analysts to both citizens and policymakers. The goal is to encourage a conversation with many voices, adjudicated by the procedural standards of a discourse ethics. Taking this approach,

the analyst first seeks "to grasp the meaning or significance of contemporary problems as they are experienced, adapted to, and struggled against by the reasonable, purposive agents, who are members of the political community." He or she then works "to clarify the meaning of those problems" in a way "that strategically located political agents (public officials or policymakers) will be able to devise a set of efficacious and just solutions to them." Finally, the analyst attempts to guide "the selection of one proffered policy from that set in light of a more general vision of the good of the community as a whole, as well as the more discreet interests of the policymakers themselves." Emphasizing a **procedural** route to policy choice, the model strives to interpret the public interest in a way that can survive an open and nondistorted process of deliberation and assessment. Importantly, in the process, **interpreting** the world and **changing** it are understood as complementary endeavors. The analyst-as-counselor seeks to "construct an interpretation of present political and social reality that serves not only the intellectual goal of explaining or comprehending that reality, but also the practical goal of enabling constructive action to move the community from a flawed present toward an improved future" (Jennings 1987:127).

CONCLUDING REMARKS

This paper has examined the postpositivist challenge to the conventional neopositivist epistemology of the social sciences and spelled out its implications for a nontechnocratic reorientation of the theory and practice of policy analysis. Whereas neopositivists have tried to minimize--if not eliminate--social and interpretive judgments, postpositivists have recognized their basic, constitutive role in any form of analysis. Rather than trying to control or hide their influence by turning to ever-more rigorous empirical research designs, the postpositivist solution brings such judgments to the fore,

acknowledging their centrality to the scientific process. For postpositivsts there is no loss in terms of the scientific product; they seek only to supply a more accurate description of what is already taken as science. Postpositivism, in this sense, strives to offer a better **empirical** explanation of social scientific process.

Nowhere are the implications of this alternative understanding more important than in the contemporary policy curriculum. Still dominated by an outmoded conception of scientific epistemology, the social and policy sciences ill-equip their students (especially doctoral students) for the world they are sent out to confront. Armed with empirical research designs and statistical methods, many often have little or no training in either understanding the normative and interpretive foundations of the tools they have learned to rely upon, or the social settings to which these techniques are to be applied. Some, to be sure, recognize these interpretive dimensions of the practice, but for reasons of examination and employment are compelled to concentrate on empirical methods. As students come to see the limits of these methods, as many do, the disciplinary neglect of these issues and concerns can breed more than a little cynicism. Some are simply turned off; others go through the academic ritual but turn away from--if not against--these methods after jumping over the requisite set of hurdles.

For a long time, the argument against changing the curricular focus has turned on the problem of alternatives. Given the absence of credible alternatives, so the argument has gone, it is better to hang on to the traditional--albeit problematic--methods than to step into a methodological void. But this no longer need be the case. Postpositivism, as we have shown here, outlines the beginnings of a new orientation. Not only does it offer a theory of the social sciences that is readily identifiable in our existing practices, it constitutes an incorporation of new methods and approaches rather than a simple

rejection of old ones. By giving new life to our methods and practices,
it opens the way to a richer and more productive approach to social and
policy inquiry.

Beyond the methodology curriculum, important implications for
professional conduct and public understanding of the practice of science
flow from postpositivism's discursive model of inquiry. Holding out the
possibility of redeeming or realizing a policy science of democracy, it
calls for participatory institutions and practices that open spaces for
citizen deliberation on contextual assumptions, empirical outcomes, and
the social meaning of conclusions. The ultimate success of a
postpositivist policy science will depend upon political and
institutional reforms. The future of such a postpositivist approach
thus remains bound to progress in the struggle to further democratize
politicadecision-making.

NOTES

[1] The term "neopositivism" is used here to refer the modern-day
embellishments of "positivism." In most general terms, positivism is an
epistemology--i.e., theory of knowledge--which hold that reality exists
and is driven by laws of cause and effect which can be discovered
through empirical testing of hypotheses. Such inquiry can empirically
objective and value free, as the laws or generalization exist
independently of social and historical context. Today positivism, as a
concept, serves as much to fuel a polemic as it does to identify a
disinct epistemological theory or movement. "Neopositivism" is employed
to refer to the modern variants of positivism. As such, it pertains to
a legacy of concepts and theories, techniques, attitudes and convictions
that have their origins in positivism. It is the dominant epistemology
of the contemporary social sciences.

[2] There is no standard definition of "postpositivism." Most
fundamentally, it is grounded in the idea that reality exists, but can
never be fully understood or explained, given both the multiplicity of
causes and effects and the problem of social meaning. Ojectivity can
serve as an ideal, but requires a critical community of interpreters.
Critical of empiricism, it emphasises the social construction of theory
and concepts, and qualitative approaches the discovery of knowledge.
(Egon Guba 1990). McCarthy (1978) has defined the task of developing a
postpositivist methodology of social inquiry as figuring out how to
combine the practice of political and social theory with the
methodological rigor of modern science.

[3] On the "correspondence theory" of truth see Lincoln and Guba
(1985:22). As they put it, "The scientist...can capture the external
facts of the world in propositions that are true if they correspond to
the facts and false if they do not. Science is idealistically a
linguistic system in which true propositions are in one-to-one relation
to facts, including facts that are not directly observed because they
involve hidden entities and or properties, or past events or far distant
events." The truth of a proposition is established through deduction,
following upon certain assumptions. Rational choice theory, based on
"given" assumptions about rational action, is the most rigorous
contemporary representative of this "hypothetico-deductive model" of
explanation. "Coherence theory," by contrast, judges the truth of a
proposition in terms of its fit (or coherence) with experience as a whole.
Unlike correspondence theory, coherence theory insist on investigating and
rendering judgments on the "givens." For a classical example of a
coherence concept of reality, see Marx's analysis of the concept
"commodity." Following Hegel, he provides an analysis of the social roots,

meaning and role of the term as it is situated in the larger context of capitalism.

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