

This article distinguishes two competing approaches to policy analysis: a credibility approach and a truth approach. The credibility approach would define the role of the policy analyst as a search for plausible argument instead of truth. After defining the basic assumptions of the truth and credibility approaches, the implications for the conduct of policy analysis are explored.

TRUTH AND CREDIBILITY IN SINCERE POLICY ANALYSIS

Alternative Approaches for the Production of Policy-Relevant Knowledge

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Most policy analysts seek truth, not the truth of Platonic essences but Newtonian truth: propositions about states of affairs in an empirically knowable world. In many instances this truth search is initiated and supported by the policymaker client who, despite complex motives, is genuinely interested in using rigorous analysis to understand a policy issue.

We use the term "sincere policy analysis" to describe instances in which the primary goal of policy analysis is to provide information to improve policy or policymaking. Sincere policy analysis is sought when the rational analyst and user are, at least at a conscious level, motivated by a wish for a "ratio," or reason to act. This contrasts with "phony policy analysis." Scores of studies have documented the uses of policy analysis for self-aggrandizement, side payments, secondary political objectives, and a variety of other objectives that do not directly relate to the policy issue at hand (Brickell, 1978; Guba, 1975; Windle and Bates, 1974)¹ but does sincere policy analysis require a search for objective truth? Setting aside the issue of

a single, objective truth, is it possible to do sincere policy analysis and not pose as purveyor of truth? The question is not whether a search for truth is required—obviously it is not—but whether sincere policy analysis can permit any other approach.

One alternative approach to policy analysis as truth seeking is the credibility approach to policy analysis (Bozeman, 1986; Landsbergen and Bozeman, 1987). The basic notion behind the credibility model is that the justification of propositions is not dependent on consistency with empirically tested models or with any other concept of truth, but with the subjective believability of propositions. The credibility approach recognizes that decision makers (DMs) will bring widely differing frames of reference to a policy decision. Rather than attempting to change those frames of reference so that one frame of reference dominates the forum for discourse, a credibility approach accepts those belief structures and examines their implications. This contrasts with a "truth approach," which has an emphasis on method, with the implicit assumption that if the method is followed there would be relatively little room for interpretation: "The data speak for themselves." Unlike the search for truth approach, credibility is viewed not only as a matter of the internal logic and evidentiary power of policy analysis, but also pertains to the unique credibility structure of the user: What kinds of arguments, using what kinds of supporting bases, does he or she find compelling?

Both the truth and credibility approaches to policy emphasize the importance of rigor. One of the primary requirements of the credibility approach is that the explanation of a policy problem or solution should be communicated such that another interested party is able to follow, but not necessarily agree with, the decision processes of the decision maker. By making explicit the argument behind the decision process, including the important facts, assumptions, and competing arguments, rigorous examination of the rationale for policy analysis becomes possible.

Traditional policy analysis often fails to take into account the different "frames of reference" (Weiss and Bucuvalas, 1980a, 1980b) with which different persons evaluate policy analysis. Dunn argues that in order to supplement the traditional approach, analysts must recommend that policy analysis be evaluated by symbolic mediation, and account for this in their analysis and communication to policymakers. While preserving the critical function of reason in appraising knowledge claims, Dunn (1981, 1982) adapts a model, developed by Toulmin, that accommodates diverse standards for evaluating theoretical and practical claims (Freeley, 1971). Toulmin (1958), in *The Uses of Argument*, introduced an alternative to the Aristotelian

method of analyzing arguments (see Figure 1 for an example in Freeley on the "Structure of Argument"). Instead of using major and minor premises, and conclusion (the syllogism) and enthymemes, Toulmin argues for different elements.

1. **Claim or Conclusion** the proposition which is being sought to be proved;
2. **Data or Evidence** factual information;
3. **Warrants or Supporting Arguments** (in this study is equivalent to credibility tests) which allow one to move from the data to recognizing the data as relevant. Also used to add evidentiary weight to the proof of the claim;
4. **Backing** which consists of additional arguments, supporting evidence, or evidence aliunde, needed to establish the warrant when the warrant will not be accepted for its face value;
5. **Qualifiers** indicate the degree of cogency which may be attributed to the warrant; and
6. **Rebuttal** indicates exceptions, limitations, special conditions, counter-arguments, or counter-evidence which may refute the claim, discount it, or restrict or qualify it in some way [Freeley, 1971: 143].

Toulmin's model more accurately reflects the disjointedness in the weighing of evidence that the Aristotelian model so desperately avoids. Every element of an Aristotelian premise must mechanically be compared by mathematics-like rules to other premises, by working with the ideas of necessity and possibility. The truths, however, which most decision makers face concern material and not formal truth. Decision makers face problems in determining the contingencies of propositions, not whether there is a necessary relation between propositions. Thus if logic, according to Toulmin, involves the method for correct reasoning or the science of thinking better, we should begin to address how decision makers decide upon the contingencies making a claim true rather than the necessity of propositions. With the Toulmin approach, human experience, intuition, and judgment provide the connections between warrants, data, and conclusions.

The emphasis of this approach is on justification. To the extent that the weight of evidence and its justification effects and affects the making of a decision, this will be a good model of how policy makers make decisions. In a world of incomplete information, the weighting of the existing evidence is critical to the decision to accept a version of reality among the competing versions of reality. Viewed in this manner, there seems little doubt that policy analysis users often, perhaps inexorably, proceed on the basis of a credibility model.

In the next sections of the article, the minimum requirements and assumptions of a truth-seeking and credibility approach are sketched out. In addition,

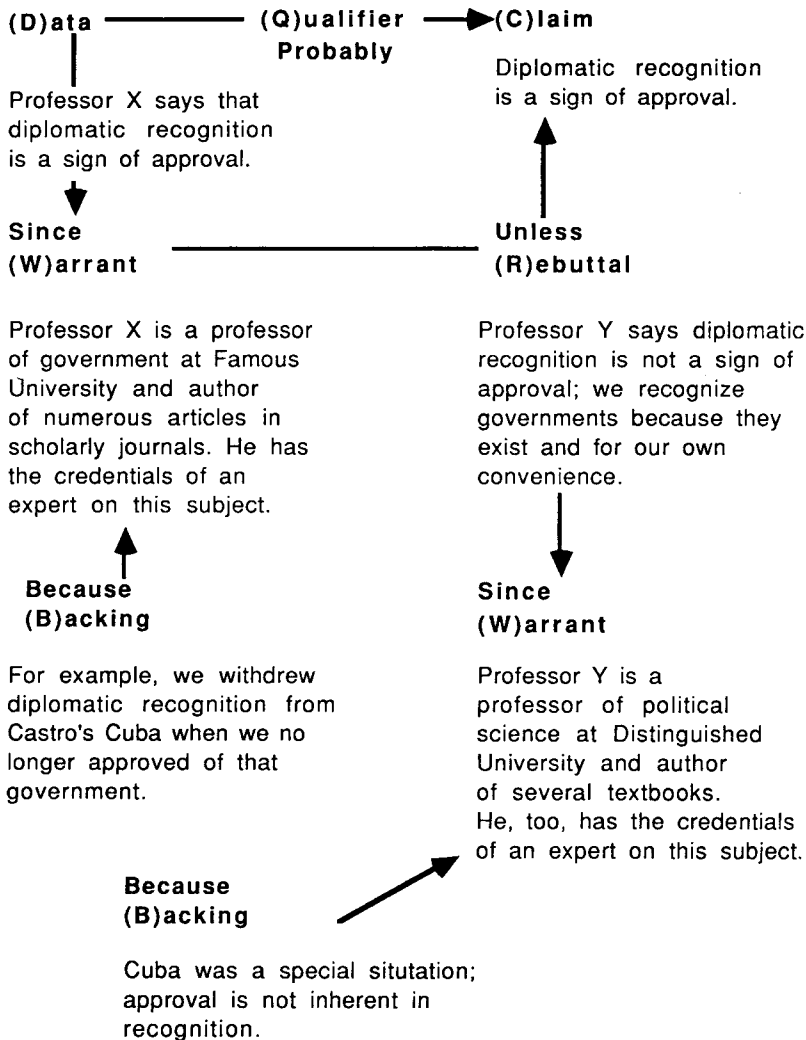


Figure 1: The Structure of Argument (Source: Toulmin, Rieke, and Janik, 1979)

the relative advantages and disadvantages of each approach for providing sincere policy analysis are outlined. In the final section, some practical implications of taking a credibility model seriously are discussed.

POLICY ANALYSIS AS TRUTH SEEKING

The minimum requirement for the (objective) truth-seeking model of policy analysis is the view that (1) there are objective states of affairs in both the social and physical worlds, (2) these tangible realities can be known through human experience, (3) propositions can be formulated that provide accounts of real states of affairs, (4) propositions that are perfectly in accord with real states of affairs are said to be true, and (5) in order to know when these propositions are in accord with the real states of affairs, there must be some correspondence of the propositions with agreed-upon facts.

Drawing upon the ideas of Hempel (1966), a truth-seeking model begins by the specification of internal and bridge principles. Internal principles characterize the basic entities and processes involved in the model and the laws to which they are assumed to conform. Bridge principles, meanwhile, indicate how the processes and entities envisaged by the theory are related to empirical phenomena with which we are already acquainted in a local context (pp. 72-73). The set of bridge and internal principles applied to a particular social phenomenon results in a theoretical model of the policy problem.

The vast majority of sincere policy analysis activity holds the truth approach as ideal. A simple, but common, illustration of this model is represented in Figure 2, which is labeled "Policy Analysis as Naive Truth Seeking."

This is the model of the disinterested policy analyst applying analytical tools without concern for any of a variety of external competitors for the user/client's attention. This approach is predicated on the assumption that the data speak for themselves and that there is not only an objective truth but good prospects for agreement about that truth. There is room for advocacy here, but it is outside the formal role of the analyst. The naive truth-seeking model is still with us in some quarters but, by and large, it is the straw man of policy analysis critics rather than the common way of doing policy analysis.

Figure 3, labeled "Policy Analysis as Socially Embedded Truth Seeking" is the model that more nearly accounts for today's view of legitimate policy analysis activity. The model recognizes (1) the social and political forces at work shaping and even competing with the truth search, (2) that the definition of policy problems is a social process, (3) that the presentation of evidence may be dispassionate but never entirely objective, and (4) that problem solving gets redefined in the doing (Kennedy, 1983). Objective truth remains the quest. The model assumes that social embeddedness complicates the

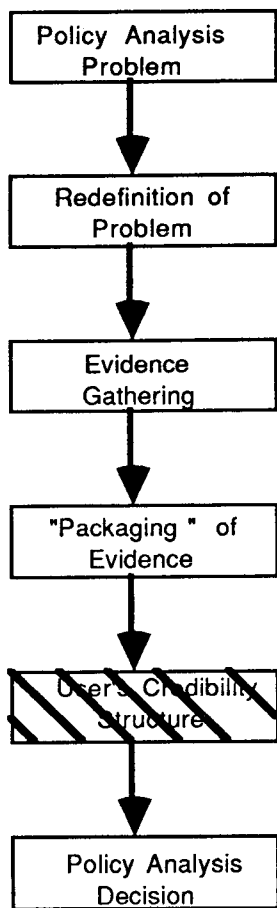


Figure 2: Policy Analysis as Naive Truth Seeking

search for objective truth, but the goal of analysis is identical to that of the naive model. Although the social factors may intrude into the practice of science, this does not preclude scientific discovery. Social factors affect the context of discovery, but the method of justification (logical and empirical) is equivalent to "idealized science" (Hesse, 1980; Martin, 1971). From this point on, when reference is made to a truth approach, the reference is to the processes represented by Figure 3.

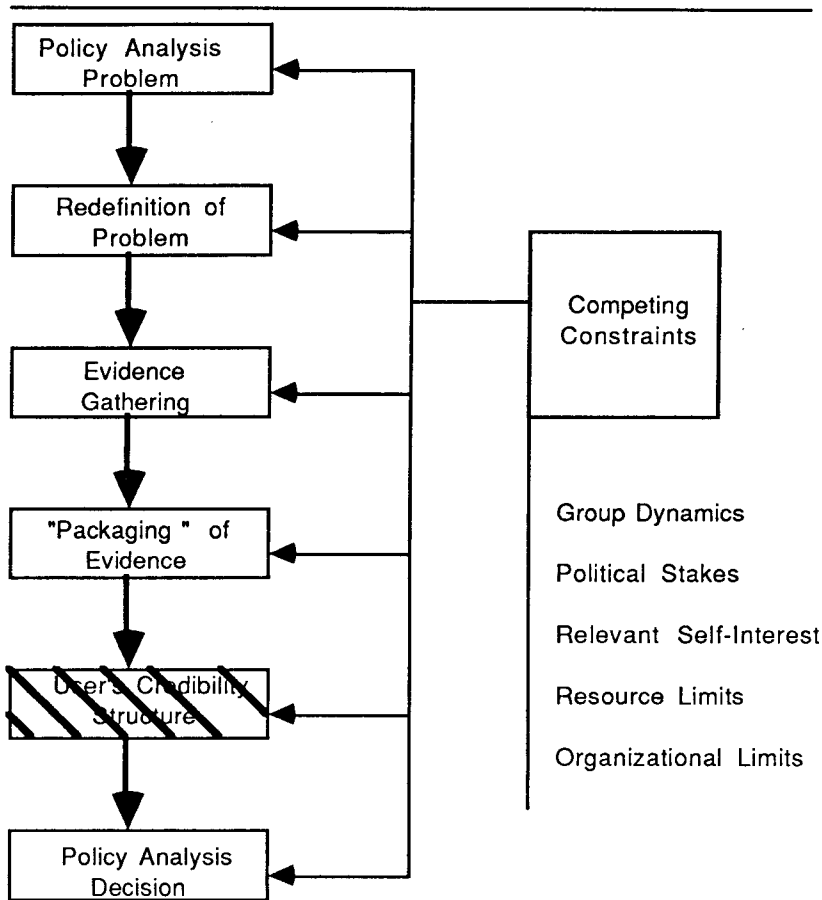


Figure 3: Policy Analysis as Socially Embedded Truth Seeking

PRAGMATIC REASONS FOR RELYING ON A TRUTH MODEL

The first advantage of a truth-seeking approach is to provide methodological guideposts. The policy analyst operating under a truth model is charged not just with determining (as best as possible) the truth, but with communicating it to others. This is one reason policy analysts working under this model have been so impressed with scientific approaches and scientific tools; science provides a great many guidelines for inquiry. Such standard procedures as significance tests and inferential statistics provide criteria that policy

analysts can understand and, sometimes, communicate to the policy analysis user. The use of a common methodology provides a common standard to allow easier communication and evidence evaluation.

A truth model also instills faith. The idea that the policy analyst is seeking truth—not just plausible explanations, sound arguments, or clinical mediation—seems to endow the policy analysis enterprise with a mantle of importance. Some policymakers may be willing to invest public funds in open-minded rhetorical exchanges but surely many are not. If the idea of policy analysis as truth seeking were widely questioned, the incidence of analysis might decline sharply. Moreover, if policy analysis is something other than systematic, truth-seeking inquiry, what competitive advantage does it necessarily have over the competing evidence provided by ordinary knowledge?

Cumulative knowledge and generalizability are more likely when there is a search for truth. Granted, policy analysis has not to date had a remarkable record of generating cumulative knowledge or generalizable findings (much less theory), but so long as the effort is motivated by a search for truth there is always the possibility that better conceptual apparatuses or stronger analytical tools will permit the formulation of propositions that are not so context-dependent.

LIMITATIONS OF A TRUTH MODEL FOR POLICY ANALYSIS

Many of the limitations of an approach to inquiry premised on a search for objective truth are as relevant to physics or religion as to policy analysis. Here the focus is on those problems particularly acute in policy analysis.

The truth model in policy analysis has yielded relatively weak explanation devices. Policy analysis rarely uses nomological deductive explanation devices (Hempel, 1966). Social theory is not strong enough to permit many lawlike claims, and those few generalizations that might qualify rarely provide much insight into local policy problems. In the vast majority of cases, truth-seeking policy analysis uses no formal explanation device (and thus appeals to authority, rhetoric, and so forth) or uses a form of probabilistic explanation assuming stochastic relationships.

There is also incongruence between the form of explanation in the truth approach and the policymaker's form of understanding. When policy analysts employ formal explanation devices, typically they use statistical explanation. But policymakers, if they are like most people, do not frequently reason in statistical or probabilistic terms and, when they do, are prone to make mistakes (Bar-Hillel and Fischhoff, 1981; Fischhoff and MacGregor,

1982). More often, policymakers think in terms of analogies, metaphors, or local history. One finds the "light at the end of the tunnel" metaphor used not only by the U.S. officials in Viet Nam, but by French officials in the 1940s, as well as by civil war generals and, presumably, those presiding over the Hundred Years' War.

The insistence on using a truth approach sometimes adds to the frustration in finding a plausible understanding of the policy problem. Except for the analytic truths presented by logicians and the literally trivial propositions presented in some of the microeconomic models used by policy analysts (Rosenberg, 1976), truth is almost always contested and rarely successfully adjudicated. The traditional standards of quantitative social science (e.g., operationalism, statistical significance) present some problems under even the best of circumstances, but in policy analysis, where many of the concerns are with local problems, these traditional standards often are inappropriate (e.g., small "n," no degrees of freedom, no statistical controls). In such cases, the evidence presented by the truth-seeking policy analyst sometimes only adds to the free-for-all.

One need not be a hardheaded phenomenologist to recognize the implications of the social construction of reality for policy analysis. It may be possible to use census data and arrive at generalizations about the effects of unemployment patterns on migration or to use a quasi-experimental design to examine the effects of a methadone maintenance program. In such cases it is often possible to come up with satisfactory indicators of behavior, but where there is a policy issue involving a relatively small number of key actors and focusing on variables that are psychological in their roots, truth seekers may have more difficulty adjudicating evidence. The argument here is that not only must the policy analysis community accept the "socially embedded truth-seeking model," in Figure 3, but go further by acknowledging that decision makers have different warrants or standards for judging the believability of a knowledge claim (Dunn, 1982).

Knowledge disrupts, and absolute knowledge disrupts absolutely. If the policy analyst is cast in the role of objective truth seeker or, worse, detached, truth-seeking scientist, what role remains for other parties to a policy issue? Some possibilities include the heavy or the antagonist. The nature of the knowledge possessed by the agency official, service provider, or service recipient is not in the least detached—it is personal, experiential, and intuitive. That is to say, it is of a type and form not easily expressed even by an articulate and sincere party to a policy issue. The result is that the significant personal knowledge held by agency officials and clients can seem to pale

TABLE I
Benefits and Limitations of a Truth Approach

Benefits

1. provides methodological guideposts
2. instills faith
3. cumulative knowledge and generalizability more likely
4. centralizes research efforts, resulting in economies of scale

Limitations

1. has yielded relatively weak explanation devices
2. incongruence between form of explanation and policymaker's way of understanding
3. adds to frustration with policy analysis by creating high expectations
4. ignores the "social construction" of reality
5. makes "ordinary knowledge" suspect
6. does little for decision maker in explaining how he or she should deal with information which is not the subject of formal analysis

alongside the authority of a more objective, formal knowledge of the truth-seeking policy analyst. If one is of the view that the knowledge presented by the sincere and competent policy analyst is necessarily of a higher order—or just more useful—than the personal knowledge presented by others, then the established order serves (see Table 1).

POLICY ANALYSIS AS A SEARCH FOR CREDIBILITY

If not truth, what? If we conceive of policy analysis as anything other than a search for objective truth, are we not left with untenable alternatives? The tone of the discussion so far has implied that as an approach to inquiry, the search-for-truth approach deserves no lofty status.

A good argument can be made that theoretical science is a superior way of knowing over ordinary knowledge, but this claim cannot be made for policy analysis. In the first place, in the strong sense of theory, as discussed here, there is none in policy analysis. In the second place, as Bozeman (1986) has argued, the fact that clinical policy analysis is atheoretical is in one respect a strength: It can be problem focused without regard to generalization. An alternative conception of policy analysis, one not so far-removed from truth seeking, is a search for credibility.

A CREDIBILITY MODEL

Figure 4 presents a credibility model for policy analysis. It closely resembles the truth model in Figure 3. The two chief distinctions are the recognition of a credibility structure specific to the user/policymaker and the recognition that policy analysis is not evaluated in a vacuum but in connection with alternative evidence and in connection with external political and social constraints. (Interestingly, the recent history of policy analysis has shown much sensitivity to social and political factors, but only limited attention to the evaluation of evidence.)

The notion of a credibility model is outlined in greater detail elsewhere (Bozeman, 1986; Landsbergen and Bozeman, 1987), but it is helpful to review some of the basic assumptions here. As used here, credibility refers to the individual's assessment of the believability of an argument. For example, Weiss and Bucuvalas (1980b) found that credibility of research is affected by the degree of correspondence between the research findings and receivers' day-to-day experiences. Credibility may be a function of the evidence presented, the structure and logic of the arguments, and the synthetic content of the propositions advanced, but often assessments of credibility occur as a result of a complex mix of cues and decision stimuli, a mix that may be unique to the decision maker (Braskamp, Brown, and Newman, 1982; Braskamp and Newman, 1978; Leviton and Hughes, 1981).

The key point is that a credibility model, in contrast to a truth model, shifts the focus from the methodological character of policy analysis to the decision process. As such, it is a more pragmatic and instrumental criterion for policy analysis. It assumes that (1) objective truth is unknowable (a position not at all inconsistent with logical positivism), (2) the current state of the art in policy analysis bodes ill for agreement about approximation to truth, (3) policy analysis is not intrinsically superior to ordinary knowledge as a basis for action, and (4) good policy analysis should stand the test of competition from ordinary knowledge.

As in the case of a truth approach to policy analysis, there are models in the credibility approach to policy analysis. But these models never reach the stage of explicating a set of axioms and method to develop a tightly justified and coherent set of propositions. The model, at most, is understood as an analogy or image with little ability and flexibility to explain other local problems. Presumably, the relations (axioms and derived propositions) implicit within the analogical model could be explicitly developed into a truth-based model. But in the case of the social sciences, this is not practically

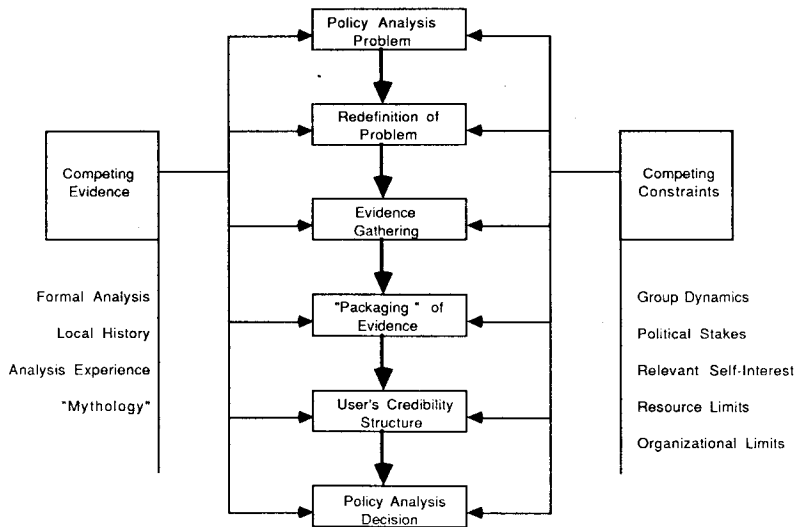


Figure 4: Credibility Model of Policy Analysis

possible because of the sheer complexity and fundamental disagreement as to values and axioms (which implicitly include value judgments). Anecdotal, historical, and personal experience are scattered as evidence for a suggested policy approach. All of this information, and this is the strength of the Toulmin approach, could be modeled in a sprawling network of data and warrants by the structure of argument approach depicted in Figure 1.

However, the model developed in a credibility approach is not as good as one developed in a truth theory approach. This is because of the inability to specify general propositions and the bridge principles to explain other local conditions. An explanation may work in one locale but we would have more confidence in extending the model to another local policy problem if we could have the bridge and internal principles specified.

The chief requirement, therefore, for an articulated assessment of credibility is that another interested party should be able to follow (not necessarily agree with) the decision logic of the individual providing the assessment. Although it is certainly the case that some individuals will be able to provide more careful and traceable indications of their credibility logic than others, any decision maker should be able to lay down some tracks. Sometimes

policy makers' heuristics make obvious sense, other times they seem to make little sense. But they do permit the policymaker to simplify the decision environment in important and sometimes desirable ways (Weiss, 1982). There is no necessary reason why policy analysis, dressed up as the search for truth, should drive out the policymaker's heuristics. It is altogether possible, for example, that a good track record will, in the long run, be a better evaluative device than any of the conventional tests social scientists use to test the veracity of propositions. Likewise, there is no reason that the decision heuristics and simplifying tools of policymakers should necessarily take precedence over formal policy analysis.

REASONS FOR RELYING ON THE CREDIBILITY APPROACH

As mentioned, decision makers can benefit from a requirement that assumptions be examined. Explication of assumptions may sometimes alter views. In addition, although policy argument and its application cannot accumulate in the sense that the exact sciences accumulate laws and advance to theory, the leaving of a record can stimulate advances in technique and application. Credibility assessments might also prove a point of departure on the way to some formalized means of peer review of systematic policy arguments. The idea of a credibility logic also provides a useful way for experts in different fields to communicate with nonexperts in that field. Many times there are different evaluative criteria in different fields. With this approach, the criteria become explicit and thus are better able to be judged.

Acknowledging a credibility approach to policy analysis may provide some legitimacy for some of the intuitive ways that decision makers are already making good decisions. An analogy could be the way that medical anthropologists now investigate the way that other cultures use "folk remedies" to solve their medical ailments. Theoreticians can now look at the way decision makers, for example, handle the problems of evaluating expertise or information overload. Perhaps the most important advantage of the credibility model is that, unlike the truth approach, it works with, rather than against, policymakers' decision styles. This is a minor advantage if one takes the view of the policy analyst as an outside observer viewing the policymaker more as datum than as client, but in our view the role of the policy analyst is to contribute to the short-run effectiveness of policy so that policies can be evaluated, modified, extended, or dismantled.

TABLE 2
Benefits and Limitations of a Credibility Approach

Benefits

1. requires explication of all assumptions upon which decision is made
2. legitimates "nonscientific" ways of knowing
3. allows multiple views of a problem to support one policy solution
4. works with decision maker's decision style
5. more easily allows for multimethodological approach

Limitations

1. reconstructed arguments may not be accurate or may even be purposefully inaccurate
2. may relegate policy analysis to being a "folk science" forever (Ravetz, 1971)
3. search for an objective truth is abandoned

LIMITATIONS TO A CREDIBILITY APPROACH

One of the most obvious disadvantages of the approach is that the reconstructed logics may not be accurate and, in fact, may be purposefully inaccurate. Some of the obstacles to accurate reconstructed credibility logic include limited recall and inability to articulate steps in decision processes, unconscious self-deception, and even purposeful deception.

There is no easy answer to these problems, but the problems are familiar to social scientists and a few techniques have been developed (especially by survey researchers) to deal with them. In regard to the latter point, where there is purposeful deception, no evaluative standard is possible when participants (whether scientists, policy analysts, or policymakers) decline to play fair. This approach, by using decision makers' own subjective criterion, also may restrict policy analysis from developing and so remain a "folk-science" (Ravetz, 1971; see Table 2). Finally, despite possible problems in fully understanding individuals' frames of reference (see Weiss and Bucuvalas, 1980a, 1980b), to not acknowledge them is to be subject to their influence without any examination of that influence.

**FROM TRUTH TO CREDIBILITY:
SOME PRACTICAL IMPLICATIONS**

The pursuit of truth with complete devotion to the entire explanation of a detailed cause-and-effect relationship can quickly become a sinkhole for time

TABLE 3
 Comparison of Truth and Credibility Approaches to Policy Analysis

Truth Approach	Credibility Approach
justified through theory and model	justifiable despite lack of theory and model
appropriate where relatively little social disagreement about values	appropriate where disagreement surrounding wide range of issues
disputes center around well-defined issues	appropriate where disagreement on wide range of issues
generally or "universally" focused translation from local experience to general knowledge	locally focused application of general knowledge to local problems
focus on method	focus on belief system or "warrants"

and resources. At the same time, a less than detailed explanation of the social processes leaves a decision maker relatively less confident since the social process is not so well understood. Some pragmatic decisions must be made about the allocation of resources while at the same time keeping in mind the importance of obtaining usable and rational explanations. One of these pragmatic decisions is whether to take a truth or credibility approach to policy analysis (see Table 3).

Recently D. T. Campbell (1987) contrasted the early hopes of policy analysis with the actual results obtained.

When the applied social science movement got underway we and our patrons in government thought that one well-trained and honest scientist (or team) producing one research report resulted in a valid scientific solution to a given problem. The logical positivist theory of science did little or nothing to disabuse of this perception [Campbell, 1987].

Given the resource constraints and the natural complexity involved in the discussion of social phenomena, one obvious implication would be to relegate the truth approach to those situations in which a credibility approach has unearthed the fundamental assumptions or facts that are the critical points of

contention. At the same time, if there is a fundamental disagreement as to values, advice yielded by a truth approach could not yield much credence to the results. The credibility approach can more efficiently handle the wide-ranging discussion usually involved when there is a fundamental disagreement as to values. A truth model, however, cannot operate without a precise and careful definition of the problem and therefore would bar much evidence from even being considered.

Related to the foregoing point is the relative strength of the two approaches to explain local versus general phenomenon. In the case of the search-for-truth approach, the concern is for producing a theoretical model that generally explains phenomena. The theoretical model is richer than the model generated by credibility analysis because it contains concepts and relationships that explain more than the empirical data that instigated its construction. The knowledge and understanding stated in terms of a theoretical model can be applied to other local problems. But because social phenomena are so complicated, the relative explanatory power of theoretical models is lost in the establishment of suitable bridge principles between the internal principles and the phenomenon sought to be explained. Were these bridge principles easier to establish, a truth-theoretical model would be far more powerful.

A credibility model, however, possesses strength in its ability to explain local phenomena. Precisely because it allows incongruent and varied types of evidence to explain social behavior, the credibility approach more easily captures the richness of local social behavior. The problem becomes one of applying the knowledge and efforts from one locale to the next. Many times, decision makers don't see what is happening outside of their local, major environments. This is bad because deciding too quickly upon what the problem is can result in committing too early to a solution and neglecting to look at a wider range of alternatives. The credibility approach, therefore, results in a duplication of effort in researching and testing the problems unique to each locale. The hope is that by framing and outlining the arguments and assumptions within a structure of argument approach, the critical and common facts, assumptions, and propositions about social behavior can be identified and made the subject of theoretical model building.

Finally, if one seriously considers the credibility model, this will focus attention on the more important questions; for example: When and under what circumstances will a decision maker abandon one model of reality that partially explains reality for another model that also partially explains reality?

POLICY ANALYSIS UNDER A CREDIBILITY APPROACH

If one subscribes to a credibility approach to policy analysis, the next question is how policy analysis should be conducted. The foregoing description of a credibility approach makes explicit the assumptions and goals of the approach, but hasn't been concrete enough to discuss how policy analysis should be conducted. Other interesting questions include:

1. Will the market for policy analysis turn soft if the pursuit of objective truth is abandoned?
2. Will validity become no more important than high quality presentation graphics?
3. Can we train policy/public management professionals in credibility assessment?
4. Can analytical techniques be developed explicitly around a credibility model?
5. Even if credibility leads to better policy analysis, will it lead to better policy?

Just as the truth approach has many variants (correspondence, consistency, pragmatic), the many assumptions behind the credibility can be weighed differently in importance, and in so doing, change the way policy analysis "ought to be done." This article suggests at least three metaphors or analogies that refine the concepts proposed earlier: the policy analyst as doctor, as lawyer, and as social activist (see Table 4).

POLICY ANALYST AS DOCTOR

Ultimately, a physician is less interested in the closest possible approximation to truth concerning, say, the impact of salt on blood pressure generally, than the effects of salt (or analogously, of society) on particular patients with particular problems. The physician may seek general truth about the effects of salt, but in addressing the needs of the patient, that general truth is less important than the doctor's knowledge of the patient (or local problem). That search for a general truth may also be mitigated by the doctor's experience with other patients, by the doctor's own predilections as a salt consumer, and by the patient's other needs.

To go one step further, suppose the physician in the same day receives two patients with hypertension. In both cases, the patient is known to have a high-salt diet and a sedentary life-style with severe occupational stress. The normal therapeutic regimen would be to prescribe a hypertensive drug to bring down the blood pressure quickly. Research has indicated that on average this is the best way to deal with the typical problem, but this hypertensive drug tends to cause nausea and is often used because the patient

TABLE 4
Metaphorical Models for the Credibility Approach to Policy Analysis

	Policy Analyst as . . .		
	Doctor	Lawyer	Social Activist
Role	apply social science to local situations; opinion is given deference	trained in the art of evidence presentation: "hired gun"	advocate but because believes in reform; government is politics
Expertise	evaluating info, clarifies problem	presenting info, advocate	obtaining reform advocate
Environment	relatively well-established value framework	helps establish framework	brings framework to public attention
Training	social science	rhetoric	social change, ethics
Values	objectivity, analysis	rhetoric, persuasion	responsiveness, social responsibility
Examples	economics (little polarization on values)	abortion	homelessness (relatively powerless constituencies)
Warrants	data quantitative analysis objectivity	discover and utilize audience's warrants	appeals to morality and ethics

cannot be trusted to change his life-style quickly. The doctor decides to prescribe the drug for one patient and not another because the doctor, among other things, believes the capacity of one patient to tolerate a continued stressful life-style is far greater than the other patient's capacity.

With both patients, the doctor relies upon scientific principles about the relationship between a stressful environment and hypertension, but the doctor does not rely upon a detailed physiological (truth) model of the patient's condition in order to prescribe for the client. Rather, the physician relies upon numerous types of information in order to provide a prescription useful to the particular patient.

If we accept the credibility approach and the analogy of "policy analyst as doctor," the analogy offers some insights into how policy analysis would be conducted. Just as the doctor is trained in the science of biology, a policy analyst would be trained in the social sciences. With this training, doctors are typically given deference. Their expertise is in collecting, evaluating, and diagnosing information. This typically would occur in a relatively well-established framework with the policy analyst merely clarifying and applying

the framework. Just as in the case of the medical profession, the primary values in decision making include objectivity and analysis. This approach to policy analysis typically would be most likely to be successful in economic policy decisions involving little polarization of values and only slight disagreement about how to weigh the importance of the important goals (growth, full employment, avoiding social dislocation, and income transfer). Recalling the Toulmin approach, the warrants typically used by this approach would include appeals to the authority of "data," quantitative analysis, and objectivity.

POLICY ANALYST AS ATTORNEY

Another analogy that could be developed from the credibility approach is the "policy analyst as attorney." One of the fundamental assumptions undergirding the legal process is that through the adversary process the correct decision will be reached. Each of the litigants has a separate view of the events that transpired and what the appropriate evaluative criteria should be. The litigants then enlist the services of a "hired gun," who then, to the best of his or her ability, attempts to persuade a neutral observer of what the problem is and what the solution ought to be. All of this argument takes place in a highly regulated environment to ensure a full and fair presentation of the evidence. The assumption is that if both attorneys make the strongest case possible for their client and concurrently show how weak their opponent's case is, the correct view of the world will emerge.

This approach is not new. Churchman (1971), MacRae (1971), Rivlin (1973), Brown (1976), Bermant and Brown (1975), Churchman and Schainblatt (1969), and Cain and Hollister (1972) have advocated a forensic policy analysis. They have all, to one degree or another, argued that social science (or applied social science—namely, policy analysis) can benefit from organized dialogue between competing normative positions.

An approach suggested by Cain and Hollister (1972) seeks to provide rules governing the use of hearsay evidence. "Hearsay" involves the repeating of one individual's statement by another individual for the purpose of proving that what the declarant (the original utterer) said is true. Legally, the purpose of the rule (in disallowing that statement into evidence) is to protect the opposing side's right to confront and cross-examine the witness. If someone is repeating a statement, the original utterer is not present for the opposing side to question. There are a number of dangers were hearsay statements admissible as evidence.

1. Defects in perception—refers to disabilities that arise from a failure or inability to observe or hear accurately.
2. Defects in memory—refers to inaccurate or incomplete recollection.
3. Defects in sincerity or veracity—refers to testimonial faults that arise from a reluctance to tell the complete truth, or from a conscious effort to distort or falsify.
4. Defects in transmission—refers to mistransmission that arise because the declarant's statement is ambiguous (as, for example, when he uses a word or phrase that has a special or unusual meaning within a particular group or segment of society) or the declarant's statement is incomplete (as when he inadvertently leaves the word not out of a sentence). This potential defect is usually not considered by the courts as posing a significant risk [Lilly, 1978: 159].

The idea is that through cross-examination (of the original utterer—not the repeater of the statement) any one of the foregoing possible infirmities would be revealed. Cross-examination, however, is possible with only the original utterer of the statement and not with the repeater. Cain and Hollister (1972) do admit that although the higher standards of evaluation will lessen the role of “hearsay” testimony in the decision process, they are not meant to provide a hard and fast decision rule in and of themselves. The evaluation of policy analysis would turn to an examination of evidence according to a set of rules of evidence. Cain and Hollister (1972) argue that

if standards for the acceptance of evaluation results are viewed in terms of the “rules of evidence” analogy, we can begin to move toward the judicious mix of rigor and pragmatism that is so badly needed in evaluation analysis [Cain and Hollister, 1972: 136].

Providing a vehicle for the explication of standards is the first step toward the intersubjective discussion and utilization of individual credibility standards. According to Fischer (1980):

The Nobel Prize-winning economist Kenneth Arrow, noted for his work in quantitative model construction, and Duncan MacRae, Jr., are among those who have stressed the value of supplying the policy sciences with a regulated discourse that commands the kind of rigor found in law. The advantage of regulated communication, according to MacRae, is that it stands apart from the discourse of ordinary life in several attributes such as precise definitions, stress on written rather than oral communication, and limitation of meaning to what has been specified in advance. In such a discourse, a statement or judgment can be given a precise definition and interpretation by a large audience [Fischer, 1980: 53].

Dunn (1982) might be considered to have accomplished a first approximation to specifying the operational rules for analysis in his listing of Type

III Errors-Threats to Usable Knowledge. Hambrick's Policy Components (1974) have similarly sought the logical structure of policy arguments. Hambrick lists three propositional components that constitute a logically complete policy argument. They serve as a sort of checklist that helps the analyst figure on the evidence needed for a discussion on a policy proposal. By including the necessary components of a logical policy argument, the policy analyst marshals sufficient evidence to earn the status of a logical policy argument. These components include

1. Lack of generality. The proposed system fails to apply to a choice about which both discussants have moral convictions and to which the critic's system does apply.
2. Internal consistency. The proposed system makes contradictory prescriptions in a situation suggested by the critic, in which the critic's system is self-consistent.
3. Inconsistency with presumably shared moral convictions. The proposed system makes a prescription which, in a specified conflict situation, conflicts with moral convictions presumably shared with the discussants, while the critic's system does not lead to such conflict [Hambrick, 1974: 93].

Brock et al. (1973) and Ehninger and Brockriede (1978) approach the problem of improving the method of policy analysis using jurisprudence or argument by taking a systems and public speaking perspective. They do not discuss, however, a logical structure such as rules of evidence that would relate factual evidence to the social mediation of those facts.

In conclusion, the attempt to apply a jurisprudential approach to policy analysis has had many proponents. The attraction of this approach is in its promise to afford a rigorous method for social discourse on factual evidence that is mediated by many social perspectives.

If we apply this analogy to how policy analysis should be conducted and how the policy analyst ought to be trained, we find a very different orientation. Under this approach, a policy analyst would become a "hired gun" whose expertise lies in the presentation of evidence. The policy analyst is now an advocate. Because the litigants have widely varying views about what transpired and by what criteria the decision ought to be made, the "policy analyst as attorney" is, unlike the "policy analyst as doctor," attempting to define the context within which the decision is to be made. Whereas the doctor analogy asks that policy analysts be trained in social science, the lawyer analogy would argue that rhetoric, presentation of evidence (based on human psychology and heuristics), and rules for debate would be of paramount importance in order to learn how to discover and present flaws in reasoning. Consequently, the values held in highest esteem would be rhetoric

and persuasion. The policy dispute over abortion is a prime example of the type of policy problem for which this approach would be most appropriate. The current struggle is over establishing the context or framework for decision: Does this fetus have rights? Once this is established, many of the consequent decisions would be much easier to handle. Where the "policy analyst as doctor" would typically use "data," numerical analysis, and objectivity as warrants, the "policy analyst as lawyer" would attempt to identify and use the warrants held by his jury. The policy analyst as lawyer would attempt to learn the values, biases, experiences, and habits of the policy decision makers and present the information in terms of these frameworks.

POLICY ANALYST AS SOCIAL ACTIVIST

The final analogy that develops more fully the assumptions of the credibility model is the "policy analyst as social activist." As in the attorney metaphor, the social activist is also an advocate, but unlike the lawyer, this policy analyst really believes in the policy that is advocated. These policy analysts are important because not every community can "buy" the services of an attorney. Government is politics, and the preservation of rights as expressed in policy requires constant vigilance. Whereas the attorney attempts to argue for competing constructs, the social activist typically attempts to bring a construct to the attention of a public that is not even aware that the construct exists. For example, this policy analysis metaphor would be most appropriate for a policy on homelessness, where the affected population is politically dispossessed. The training of these policy analysts typically would involve learning about social change and discourse on ethics. The main values underlying this approach are responsiveness, ethics, and social responsibility with the warrants (using the Toulmin approach) being appeals to morality and ethics (see Figure 1).

CONCLUSION

It is suggested that, unconsciously, the policy analysis community really pursues two competing approaches to policy analysis. The goal of both the search-for-truth approach and the credibility approach is to produce usable knowledge to the decision maker that provides a basis for insight and action. While the search-for-truth approach is the stated ideal and the credibility

approach is the unspoken reality of the way most policy analysis is used, each approach has pragmatic tradeoffs in fulfilling the goal of providing usable knowledge. This article first distinguished the two approaches to policy analysis, defined their operating assumptions, and then outlined their strengths and weaknesses. Finally, three metaphors for "fleshing out" the credibility approach were then developed.

NOTE

1. To be sure, sincere policy analysis and phony policy analysis exist alongside one another and, relatedly, many instances of policy analysis have elements of each, but our argument is advanced by making a sharp analytic distinction between the two.

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