

UC Berkeley

IURD Working Paper Series

Title

The Construction of Information In Planning

Permalink

<https://escholarship.org/uc/item/4sv8r90h>

Author

Neufville, Judith Innes de

Publication Date

1987-04-01

Peer reviewed

THE CONSTRUCTION OF INFORMATION
IN PLANNING

by

Judith Innes de Neufville

Working Paper No. 459

April 1987

Institute of Urban and Regional Development
Department of City and Regional Planning
University of California, Berkeley

ABSTRACT

Though it appears difficult to find instances where planners use information to make decisions, this perception is due to a limited conception of information. Three examples show the power of information, but require a view of information as subjective and socially constructed. Its influence comes through myths which tacitly shape policy, through negotiation over concepts and methods and through standard operating procedures. This information defines rather than solves problems and is often implicit. Its influence depends on its being constructed through a social process involving users. The danger that it can become institutionalized and misleading must be addressed through the method of critique, assuring open debate over its assumptions.

THE CONSTRUCTION OF INFORMATION IN PLANNING

INTRODUCTION

Few would disagree with the proposition that information is essential to good planning. In the typical view this information is of a formal kind--facts, principles, or quantitative data. Planners and decision makers should, according to this view, use information to answer questions, solve problems and choose among alternatives. But those who look for such information use have found it difficult to pinpoint specific examples(1). It is my contention that their inquiry has been guided by a limited a conception both of the nature of information and of its potential influence, and, as a result, they have failed to identify many applications of information. They most often rely on a concept of information drawing on a positivist epistemology. This contends knowledge consists in measurable facts and formal theories produced by objective scientists working in laboratory conditions. It sees the knowledge production enterprise as distinct from the messiness of the real world and not burdened by its values or biases. Planning information should thus be made up of facts and theories produced in ways that come as close as possible to the scientific model. This view dictates that goals should be set in advance of analysis, that research should be controlled by experts and that planners and policy makers should, like ideal scientists, let the findings persuade them(2).

Although planners and policy makers may well make this kind of conscious, intellectual use of formal information to help them make decisions, this paper will argue, on the basis of a series of studies of planning practice, that information can have more pervasive and potent, though less visible, roles in the planning process. Information may take the form of stories, even myths with little basis in provable fact, which nonetheless link policy ideas to community experience and values, make sense of complex realities, and motivate collective action. Information can become part of the taken for granted framework which suggests planning options and sets boundaries on action. It can even become the focus of a political debate which allows those involved in planning to clarify goals and make choices. In short, information can influence because it becomes part of the total planning process and shapes the thinking and actions of those involved, even when no one uses it directly as a criterion for a decision.

A phenomenological model of knowledge is more useful than a positivist one in helping us to recognize the existence of this kind of information and the ways it may shape planning. In this view knowledge includes what ordinary people know and take for granted. It includes understanding of subjective meanings and of complex, messy and unique situations. Even knowledge that purports to be scientific is shaped by the observer's perceptions and biases. Inevitably, according to the phenomenological view, all that we take as knowledge is socially constructed--that is, it is produced according to accepted conventions, by people who

are regarded as legitimate knowledge producers, and it has meaning which people in a community can share.

As I have argued elsewhere(2), information which draws on this phenomenological understanding is more likely to influence action than the more objective, scientific form of information that has been developed by a community of researchers in isolation from users. In particular it is likely to have more meaning to actors in the planning process, and it is apt to reflect better the world they inhabit and values they share. In this paper I will look more closely at socially constructed information and the ways it can shape planning. I will briefly discuss the danger that socially constructed information can become institutionalized, and conceal more than it reveals, and I will discuss strategies to confront the problem.

INFORMATION SHAPES PLANNING: THREE EXAMPLES

Myths and Stories: Linking Ideas to Experience

Ideas and theories which move decision makers to act are seldom presented in a logical deductive or abstract form. Instead they are communicated in stories, myths and symbols. These provide imagery and experiential content the public can relate to directly and they offer moral lessons which link to community beliefs. People may accept the message of such stories, regardless of whether they see them to be literally true. Myths often express complex ideas about cause and effect, right and wrong, and past or future(3). Ideas which are widely

accepted in a community are often implicitly linked to such stories.

To illustrate briefly how myths embody ideas in forms which can motivate action we can look at one powerful myth which has captured the imagination of those making policy ever since the American Revolution. Thomas Jefferson articulated the story of the yeoman farmer, which expresses an idea about the causes and nature of civic virtue and freedom and provides an image of an ideal future society. The yeoman farmer owns a small portion of land sufficient to support himself and his family. He has obligations to no one, but he does have a stake in the country. He does not accumulate wealth nor become a landlord, but is autonomous, proud, and responsible. The nation would depend on such yeoman farmers as the backbone of its electorate and protection against tenancy and class oppression.

This myth has profoundly influenced U.S. housing and land policy(4,5). It played an important part in federal homesteading policy, which said that anyone willing to settle was entitled to an amount of land fixed at the number of acres thought just sufficient to support a family. During the period of violent agitation for unions, corporations offered housing loans to their workers because as homeowners they would be good citizens. The American Dream is usually expressed in the wish to own a single family home(6), and the reality in recent years that an average family can no longer afford such a home is widely perceived as a problem. Local communities prevent the building of multifamily

housing because, as Perin(7) documents, many believe renters are not responsible citizens. Federal policy has subsidized homeownership through the construction of highways, veterans mortgage subsidies, and the mortgage income tax deduction.

Although the myth of the yeoman farmer can be challenged by a look at facts and theories generated in a more positivist mode(8), it remains accepted. Homesteaders in fact, often became tenants or landlords, or even accumulated fortunes. Research is unable to prove a link between housing and behavior. Economists demonstrate the subsidies are inefficient ways to provide housing. But homeownership remains the cornerstone of U.S. housing policy.

It is not difficult to identify other myths that have motivated public action. The Horatio Alger myth of the hard working boy who makes it from rags to riches still, in one form or another, motivates individuals as well as public policies which are grounded in the theory that in the U.S., merit and hard work will be rewarded. The myth that all capitalist states will eventually be taken over by the proletariat has motivated revolutions. Though these stories could be shown to be contrary to some facts, the ideas they represent are widely seen as true. While it would be useful to establish standards by which to categorize and evaluate myths, myths as a general category must be understood as part of the knowledge which makes a community function. They provide a form of information that helps

establish the agenda for planning and frames images of the solutions to problems.

Negotiating the Numbers

Information can also shape practice when users and knowledge providers negotiate over the concepts, definitions and methods that will be used to generate it. Documentation of such a process can be found in Dutton and Kraemer's case studies of the role of fiscal impact models in local planning(9). These computer models, which simulate service cost and revenue impact of development, can help determine effects of level and types of development on a jurisdiction's finances. In the communities studied, no agreement on growth issues had been possible prior to the design of the model.

In two of the cases, agreement on growth policy among public and private actors was achieved during the negotiation over the design of the model because the consultants involved the planners, county supervisors, commissioners and other political actors in choosing model parameters. Local decision makers then used results of the models because they had already accepted the crucial policy implications of the model--in particular, that fiscal criteria should be applied to development decisions. They also knew how the model would work, what it meant, and how much to trust it. In the case where resistance to growth control was strongest, local decision makers did not even accept the idea of the model, much less negotiate over it or use its results. They

were well aware that it contained assumptions which would determine policy if accepted.

Public debate over the concepts of research has been tantamount to agreement on policy in other cases as well. For example, debate over the definition and methods of unemployment measurement in the 1930's helped Congress reach a decision on federal policy for unemployment. Labor and management groups both accepted the government's measure. Movement in the indicator became the unquestioned criterion for policy(10). Public and private discussion over methods and concepts of population estimation in California assures that these numbers, used to allocate billions in revenues, are widely acceptable to the cities and the public(11). Public negotiation over the definitions and methods used in official statistics helps them correspond to public conceptions of the issues, identifies errors, and provides a relatively neutral arena to work out policy conflicts(12). In this process, practitioners and decision makers come to know the limits of the information, demand changes in it, and become committed to using it. It becomes part of what they accept as fact.

Data Requirements and Policy Making

Research indicates that requirements for public agencies to produce, publically present, and debate information have had a significant impact on practice in such diverse contexts as Environmental Impact Assessment(13), Community Development Block Grants (CDBG)(14), school systems(15), federal unemployment

policy(10), and human rights policy(16). This influence came through paths unanticipated by the positivist model. Though few instances were uncovered where the participants claimed information changed their minds, the overall impact of the existence and publication of the information was to help implement goals of the legislation, such as protecting the environment or increasing the supply of low and moderate income housing. This effect occurred not because the data answered questions, but because they contributed to changing the norms and criteria for policy and increased the power of those advocating for the legislation's goals. They helped assure, moreover, that participants would routinely expect evidence to be provided for arguments.

These effects occurred through several interrelated mechanisms. For example, planning agencies were required to prepare massive tables about their population and housing before HUD would release CDBG funds. While the data were not precise or up to date enough to inform knowledgeable people, the requirement to prepare the data helped assure that trained professionals--planners and data analysts were on regular staff. They tended to share the values of the legislation and to believe that decisions should be informed by research. The activity of preparing and discussing the required data focused planning agency and planning commission attention on such HUD goals as meeting housing needs and alleviating poverty. The data gave the planners authority, both as experts and as interpreters of HUD's goals and criteria. The data were enlightening to those new to planning. The

requirements gave citizens and interest groups who cared about housing the opportunity to bring suit if the data were inadequate or if proposals ignored them. Agencies were thus forced both to address certain policy issues and to pay attention to the quality of their data(17).

Other examples are parallel. Human rights reporting requirements have forced the State Department, under a reluctant Reagan Administration, to publically acknowledge abuses in many nations and have educated foreign service officers to form an internal interest group for human rights policies(16). The presentation of environmental impact data has empowered citizens and those interested in the environment to influence the decision process. The information requirement has helped to create and maintain new groups of professionals who make planning better informed and more environmentally sensitive(13).

Requirements to produce and publish data call attention to issues, place them on the agenda and make them legitimate criteria for choice. The process of preparing and debating information upgrades the capability of the agencies and the public to use data as well as to understand the issues they reflect. Data requirements can change the taken for granted knowledge that frames planning. They help to structure standard operating procedures and the values embedded in them. In doing so, they alter the possibility and probability of outcomes.

THE SOCIAL CONSTRUCTION OF PLANNING INFORMATION

A New Perspective on Information Use

In all these cases information that was influential was constructed through a social process that included the users. These users internalized the concepts and understood the methods. Accordingly they then accepted the data generated and the solutions that the information suggested. This information became part of a subjectively accepted reality, part of what those involved took for granted. The information was embodied in various forms--an accepted myth about citizenship, a negotiated agreement on model parameters, or standard operating procedures of an agency and political process. In each of these cases, this information became intrinsic to planning.

The phenomenological view of knowledge can shed new light on the use of information in planning. The first relevant insight is that knowledge can take a subjective form. It includes the meanings of events and data, the values people place on issues, and many ideas they take for granted. Thus, much that participants in planning "know" is tacit and cannot be scientifically tested against measurable facts. Nonetheless, recognizing these subjective meanings is essential to identifying the kinds of information they use and its effects on their actions.

This insight, along with the analysis of cases, suggests that the idea of information use needs to be expanded beyond its

typical meaning in the literature. Planning information, first is more than just facts, theories, or quantitative data. People are influenced by information even when they are not learning directly from it, solving a problem, nor making a decision. The information may help define a problem in the first place; it may set boundaries on possible options; it may make choices accountable; or it may simply assure that public arguments are made in different ways. Information becomes part of the framework within which practitioners and politicians identify options, apply criteria and make choices, rather than an aid to identifiable decisions. Participants in planning may deliberately create systems which produce such effects, or the effects may be unexpected byproducts of information production.

Those who wish to identify tacit information and its consequences will have to rely heavily on ethnographic and other methods in the phenomenological tradition. The quantitative, positivist style of research forces the researcher to use measurable decision points and visible information as the subject of investigation. Typically, such research cannot identify a link between the two. To get at tacit knowledge and beliefs requires a largely qualitative style of inquiry.

A second insight from phenomenological thought helps to explain the findings of these cases and points to ways to rethink the process of informing planning. The argument, best made by Berger and Luckmann(18), is that all knowledge is created through a social process. An individual learns through a process that

alternates between the subjective activity of experiencing and the objective activity of labelling and analyzing. Knowledge that is understood in a community of citizens or scientists depends on comparable alternation between experience and explanation until a shared view is reached. Knowledge that is accepted as true is that produced by methods and people that are accepted as legitimate. A social process thus shapes what individuals internalize as beliefs and creates what they take as knowledge.

This perspective helps to explain the potency of information developed interactively between information providers and planners or other users of information. In this process information acquires shared meanings. Users pay attention to it because they understand it and because it reflects their values, perceptions, and biases rather than solely those of the information providers. It addresses the questions they think are important. Thus, they are more likely take it as true and to act on it than on information produced in isolation by researchers.

But it is not enough simply to say that this interactive method produces information on which people act. This interactive method of producing information is itself action. It changes what participants in planning believe, think, and want. Nor is it a one-way process where the expert educates the layman, but a two-way transaction where the layman also has also important knowledge to contribute(19). The communication of information is integral with its creation. This process can be

thought of as social learning, where the development of the information is part of the formulation of a community's understandings and preferences(20). The distinction between information provider and user blurs in this conception because it is in part through the application of ideas that both share in creating information. This idea implies that researchers must understand acts of practice and practitioners acts of research. It helps legitimize the actual role that many planners have as both information providers and users. Any individual may adopt a role on a continuum between being solely providers of information and solely users.

If we adopt a social learning perspective, it will demand that we rethink even further the notion of information use. In a social learning context, people are being shaped by the information as they themselves design it. The information they design shapes what they see and understand. No specific decision point exists where information use can normally be isolated. Rather, change in understanding takes place gradually. Once a consensus is reached on how to produce the data, as in the cases of impact modelling and unemployment statistics, policies and plans are often largely foregone conclusions.

Dilemmas with Socially Constructed Information

Though information constructed through a social process has the advantage that it can motivate action, it has serious limitations. If researchers and information users share a framework, the tension between the ordinary person's and the

expert's view of the world is missing. The information can have a self-reinforcing circularity. All participants may accept it unquestioningly. Information that was originally recognized as a convenient and more or less appropriate description of an issue can come over time to be the only way to see it. The information can however, become less and less meaningful as time passes. For the last 15 years, for example, there has been major criticism of the unemployment measure because it does not reflect underemployment. Though social agreement was reached on this indicator during the Depression, at that time those who had any employment at all seemed relatively well off. Efforts to change the indicator's definition have failed because current users benefit in keeping it as is, because employment theories and policies are built on the concept it now represents. Myths, too, that may be sensible ways of understanding the world at one time tend to persist even when conditions change and their application is no longer helpful. It is, for example, unclear how to apply the myth of the citizen homeowner to people who live in condominiums.

The effect of using such information is usually to reinforce the status quo. Berger and Luckmann make clear how the explanations popularly accepted in a society are likely to operate as rationalizations for the existing power structure(18). These rationalizations conceal contradictions and focus attention on the least troublesome issues. The myth of the yeoman farmer as citizen homeowner, for example, diverts attention away from the reality that not all citizens can own homes and rationalizes

the fact that more affluent people have more effect on government.

The information provider is thus in a dilemma. As phenomenologists tell us, unbiased, value-free research is impossible, and as practice reveals, formal theory and measurable facts are insufficient to motivate collective action. Socially constructed knowledge, with its link to shared meaning, will motivate, but is likely to reinforce the status quo and may be insensitive to changes in society over time. What course then remains to the researcher who wishes to find responsible, ethical, as well as effective ways to provide information for practice?

METHOD OF CRITIQUE

Some answers to this problem may be found in a third epistemological view that builds on phenomenology--critical theory and, in particular, the work of Jurgen Habermas(21,22). This view tries to confront the dilemma of the circularity of information in several ways. Habermas posits that there are three types of knowledge, each of which is guided by a different cognitive interest. The first, which grows from the "technical" interest in predicting and controlling events, is knowledge in the positivist tradition. The second, guided by the "practical" interest in communicating in ordinary life is phenomenological in its focus on understanding of social meanings. The third, and the one to which he gives most attention, is inspired by the "emancipatory" interest in critical self reflection, the interest

in liberating society from self-imposed constraints. This is the method of critique.

While much work remains to make the method of critique operational, the concepts provide important ideas for professional practice. To achieve knowledge which is not self-reinforcing, at least three points are crucial. The first is that one must examine one's own understandings from a critical view, and one must question assumptions, taking a position which challenges the status quo. The second is that critical knowledge is achieved through a communicative process in which those with differing interests participate. This process can only work ideally, however, if it is free from the distortions caused by inequalities of power and information among the participants. Third, there is an intimate relation between theory and practice, or praxis. It is not enough to test theory against practice, nor for theoreticians to know about practice. Rather we can only understand each through the other. Both theory and praxis are essential components of knowledge.

The power of these ideas is considerable for fields such as planning, which use information to create new futures. It suggests that a principal task is to create the communicative, or social learning processes that can produce critical, self-reflective information. They should be designing what Bryson refers to as "forums, arenas and courts(23)." The planner's task is to identify the interests in a project or issue, find ways to empower the weaker groups, and to assure that all have equal

access to information and capability to speak. The view suggests that the planner's role is to assist those who are victims of the system and to take their viewpoint. In many ways planners have played this role in the past, but this mandate implies that it should become far more central and self-conscious. This view also suggests that the planner is in a key position in the development of critical information because, unlike researchers, the planner operates in both the worlds of theory and praxis.

For planners to play this role new institutional arrangements will have to be created along with new styles of working with interested actors. This will be a considerable task. The role of challenging the power structure is at best unstable and only rarely been even partially institutionalized. There are however avenues to be explored. Mason and Mitroff(24) have experimented with dialectical methods of surfacing planning assumptions among executives. Weiss(25) shows that decision makers value research which challenges basic assumptions. Thus, there may be a role for iconoclastic practice in consulting firms which can be called in when decision makers are looking for change. The practitioner/researcher working for a legislator, powerful political appointee, or company president may also be able to play this difficult part. Private support may be available for some efforts, and of course the university offers some protection for assumption-challenging research. Institutionalized roles such as ombudsmen or evaluators offer potential for practice, but are constrained by who employs them and by a normal tendency to accept the predominant perspectives

in the community. The difficult task of getting the disenfranchised a place in the public debates has been attempted occasionally with, at best, modest success in such programs as Model Cities and the War on Poverty. Yet the effort is crucial if communicative action is to be designed which will provide information to planning that is emancipatory rather than misleading and oppressive.

The method of critique has special application to practice at times of social and economic change and when the paradigm of a field is under challenge, as it now is in planning(26). Critique is useful when values are in conflict and interests at odds, because it can help provide the ideas for a new world view. For critique to play an effective role, however, practice will have to be transformed.

REFERENCES

1. Weiss, C., ed. Using Social Research in Public Policy Making, Lexington Books, Lexington, Mass, 1977.
2. de Neufville, J.I. "Knowledge and Action: Making the Link," Journal of Planning Education and Research, forthcoming, 1987.
3. Tudor, H. Political Myth, Pall Mall, London, 1972.
4. de Neufville, J.I. and Barton, S., "Myths and the Definition of Policy Problems," paper prepared for a Conference on Problem Definition in Public Policy, Brown University, October 1986.
5. de Neufville, J.I., "Symbol and Myth in Land Policy," Ch. 12 in Values, Ethics, and the Practice of Policy Analysis.

Dunn, W. ed., Lexington, Mass, Lexington Books, 1983.

6. Wright, G., Building The Dream: A Social History of Housing In America, MIT Press, Cambridge, Mass., 1983.

7. Perin, C. Everything in Its Place: Social Order and Land Use in America, Princeton University Press, Princeton, NJ, 1977.

8. Durning, D., "Symbolic Politics and Policy Analysis: The Case of Home Ownership Subsidy Policies," Paper prepared for the Annual Meeting of the Association of Public Policy Analysis and Management, 1984.

9. Dutton, W. H. and Kraemer, K. L. Modeling as Negotiating: The Political Dynamics of Computer Models in the Policy Process, Norwood, NJ, Ablex Publishing, 1985.

10. de Neufville, J.I., Social Indicators and Public Policy: Interactive Processes of Design and Application, Amsterdam, Elsevier Scientific Publishing Co., 1975.

11. de Neufville, J.I., "Federal Statistics in Local Governments," Ch. 11 in Alonso, W. and Starr, P. eds., The Politics of Numbers, New York, Russell Sage Foundation, 1987, pp. 343-362.

12. de Neufville, J.I., "Validating Policy Indicators," Policy Sciences, Vol. 10, 1978-79, pp. 171-188.

13. de Neufville, J. I. and Solloway, M., "The Role of Environmental Impact Review in Land Use Planning," paper presented at the Annual Meeting of the American Planning Association, Los Angeles, 1986.

14. de Neufville, J.I., "Federal Requirements and Local Planning Capacity: The Case of CDBG," Working Paper No.365,

Institute of Urban and Regional Development, University of California, Berkeley 1981.

15. Weiss, J. and Gruber, J., "Using Knowledge for Control in Fragmented Policy Arenas," Journal of Policy Analysis and Management, Vol. 3, 1984, pp. 225-247 and Weiss and Gruber, "Deterring Discrimination with Data," Policy Sciences, Vol. 17, 1984, pp. 49-66.

16. de Neufville, J. I., "Human Rights Reporting as a Policy Tool," Human Rights Quarterly, Vol. 8., No. 4, 1986, pp. 681-699.

17. de Neufville, J.I., "The Power of Data Requirements," paper prepared for the Annual Meeting of the Association of Collegiate Schools of Planning, Milwaukee, 1986.

18. Berger, P. and Luckmann, T., The Social Construction of Reality, Anchor Books, New York, 1966.

19. Schon, D., The Reflective Practitioner: How Professionals Think in Action, Basic Books, Inc., N.Y., 1983.

20. Michaels, Da., On Learning to Plan and Planning to Learn, Jossey Bass, San Francisco, CA, 1973.

21. Habermas, Jurgen. 1984, The Theory of Communicative Action: Vol. 1 Reason and the Rationalization of Society), trans. by Thomas McCarthy, Beacon Press, Boston.

22. McCarthy, Thomas. 1982, The Critical Theory of Jurgen Habermas, Cambridge, Mass., MIT Press, 1978.

23. Bryson, J. and Einsweiler, R., "The Design of Forums, Arenas, and Courts," unpublished paper, University of Minnesota.

24. Mason, R. O. and Mitroff, I., Challenging Strategic Assumptions: Theories, Cases and Techniques, John Wiley, N.Y., 1981.

25. Weiss, C. H. with Bucuvalas, M. J., Social Science Research and Decision-Making, Columbia University Press, New York, 1980.

26. de Neufville, J.I., "Planning Theory and Practice: Bridging the Gap" Journal of Planning Education and Research) Vol. 3, 1983, pp. 35-45.

