

RECONSTRUCTING POLICY THEORY

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ABSTRACT

This article deals with theories in practice. A policy theory is defined as the total of causal and other assumptions underlying a policy. It can be reconstructed and represented in several ways, for instance by means of causal hypotheses, graphs, goal trees, and decision trees. A combination of these different ways of reconstruction is possible. The quality of a policy theory can be evaluated on the basis of several criteria, for example, the precision of formulation, the differentiation, the integration, the empirical value, and the legitimacy of the policy theory. In order to get more insight in the determinants of policy theories, it is important to compare them in longitudinal and cross-sectional research. The structure and quality of policy theories have effects on the contents, the process, and the results of a policy. It is a plausible hypothesis that the goal attainment of a policy will be higher as the precision, the differentiation, the integration, the empirical value, and the legitimacy of a policy theory are higher.

1. PROBLEM SETTING

Every practitioner is also a theoretician. Political behavior is linked up with political ideas. Assumptions lie at the root of administrative actions. Policy rests on a set of causal and other assumptions that may be called policy theory.

Such thoughts frequently appear in the literature about politics, administration, and public policy. They are often accompanied by the understanding that the assumptions lying at the root of policy are not only interesting for social sciences, but also important for policy practice. Often policy failure can be partly accounted for by the fact that policies are based on incorrect assumptions.

The importance of research into assumptions that are lying at the root of policy has been put into words by Suchman as follows: "The process of seeking to understand assumptions of an objective is akin to questioning the validity of one's hypothesis. Involved is a concern with the theoretical basis of one's belief that 'activity A will produce effect B'. Such concerns are the earmark of professional growth" (1967, p. 41).

What is the place of research on policy theories in evaluation research? As far as evaluation research aims at the effectiveness of a policy, it tries to answer the questions of how far attaining or not attaining end A can be accounted for by policy B or instrument C. Such

research, in other words, is the test of a causal assumption underlying a policy. In view of this, it is necessary to systematically reconstruct and analyze the assumption of a policy, that is the policy theory.

Research into policy theories is not only important in view of effectiveness research, but also for the evaluation of the policy contents, policy processes, and the policy theory itself.

Whenever the term policy theory is used in this article, it is not the scientific theories on policy, policy processes, and policy effects that are meant. *Policy theory* means here: the total of causal and other assumptions underlying a policy (Hoogerwerf, 1985).

Especially since the 1970s, an ever-increasing literature has existed about such policy theories, mainly on the basis of research into policy evaluation and design, but also in connection with research into political elites, decision-making, political culture, psychological cognition research, and argumentation theory. Policy theories appear to be indicated with very different terms, such as:

- the image (Boulding, 1956),
- appreciative system (Vickers, 1965),
- beliefs about cause-effect relationships (Thompson, 1967),

- validity assumptions (Suchman, 1967),
- impact model (Freeman & Sherwood, 1970),
- policy maps (Eulau & Prewitt, 1973),
- theory in practice (Argyris & Schön, 1974),
- cognitive maps (Axelrod, 1976),
- theory of action (Patton, 1978),
- assumptive worlds (Young & Mills, 1978),
- mental maps (Hall, 1978),
- deductive model (Nagel & Neef, 1979),
- policy making framework (Lindblom & Cohen, 1979),
- argumentation (Dunn, 1981),
- political reasoning (Vedung, 1982), and
- deduction as a source of policies (Nagel, 1984).

This article tries to give a systematic and critical outline of part of the literature on policy theories. It fo-

2. CHARACTERISTICS OF THE CONCEPT OF A POLICY THEORY

In the total of assumptions underlying a policy, it is not only assumptions about features of phenomena that matter, but also assumptions about relations between phenomena. This element of assumptions about relations distinguishes a policy theory as such from ideas, perceptions, and attitudes concerning properties of perceived individual phenomena.

The relations that the assumptions of a policy theory refer to are to be distinguished into relations between objectives and means (final relations), between causes and effects (causal relations), between principles and

causes on policy theories of political and administrative elites. Within the indicated limits the problem setting is made up by the following questions:

1. What are the main characteristics of a policy theory? (Section 2);
2. How can a policy theory be reconstructed? (Section 3);
3. What internal structure does a policy theory have, and with what criteria can its quality be evaluated? (Section 4);
4. From what factors can the structure and the quality of a policy theory be accounted for? (Section 5);
5. What are the consequences of the structure and the quality of a policy theory for the contents, the process, and the effects of a policy? (Section 6).

norms mutually or between principles and norms on the one hand and existing or expected situations on the other hand (normative relations). The latter relations will, among others, result in perceptions of problems on which the policy can be focused. The causal relations will often include causes of the social problems as well.

The assumptions that a policy theory consists of may furthermore refer not only to the policy itself, but also to the policy process, the policy organization, and that sector of society at which the policy is aimed (the policy field).

3. RECONSTRUCTION OF A POLICY THEORY

Reconstruction of a policy theory is tracing and reformulating the total of assumptions underlying a policy along a scientific route. This is done on the basis of contents analysis of oral or written texts. In this section some methods are discussed that are applied in view of the reconstruction of policy theories.

3.1 Reconstruction of (Causal) Hypotheses

Freeman and Sherwood (1970) have pleaded in favor of the translation of assumptions underlying a policy into an explicit "impact model." According to them, this model should include three causal hypotheses, respectively about (a) the causes of the policy problem, (b) the effects of the policy on the causes of the policy problem, and (c) the effects of the policy on the policy problem itself.

Leeuw (1983) moves in the line of Freeman and Sherwood (1970) when he remarks that the theory underlying a policy is found by making the policy assumptions explicit or by reconstructing them. He formulates the following method-rules:

- (a) Write out the effect which is to be attained with the policy measure (= the objective variable) as precisely as possible.
- (b) Draw up an inventory of the policy measures (the measure variables) in categories with the help of behaviour mechanisms on the ground of which an effect is expected.
- (c) Formulate the connections between the variables from (a) and (b) in 'if-then' statements or statements of proportion.
- (d) In doing so, use as much written information from the part of the government about the categories of policy measures to be analyzed as possible.
- (e) Try to bring the statements from (c) together in a system in which one statement is deduced from another.
- (f) Draw up criteria with the help of available (meta-theoretical) literature used for screening the (policy) theories.
- (g) Ascertain with the help of these criteria how adequate these theories are. (Leeuw, 1983, pp. 147-153)

This author is a bit more careful than Freeman and Sherwood by speaking not of causal hypotheses, but of assumptions about connections. It can however be

noted that the goal-means relations that Leeuw starts from presuppose the presence of causal relations. His steps f and g concern the evaluation of a policy theory (see section 4) and not the reconstruction.

3.2 Reflection Of Causal Hypotheses in Graphs

Axelrod (1976) does not restrict himself to a reconstruction of the hypotheses underlying a policy, but passes on to a graphic reflection of causal assumptions in a "cognitive map." This map has only two fundamental elements: concepts and causal assumptions. The concepts are treated as variables. The causal assumptions are treated as relations between the variables. In the cognitive map, the variables are indicated as dots. The causal relations are indicated as arrows having a cause-effect direction. A positive causal relation is indicated by placing a plus sign by the arrow, and a negative causal relation by placing a minus sign by the arrow. In order to create a cognitive map from a document (for example an account of a meeting), it is necessary to encode a given text sentence by sentence. The first stage of the encoding process will lead to two lists: a list of the concept variables from the text and a list of the causal statements from the text. In the second stage the causal statements of one person are put together to construct his cognitive map (Axelrod, 1976, pp. 291-332).

A graph has some advantages over a textual reflection of assumptions about causal relations. It gives a quick overall picture. It has been attuned to the structure and the pattern of relations between variables (are there any gaps, contrarities, clusters?). With the analysis, notions and propositions of the mathematical graph theory (cyclis, course, chain) can be used. However, these graphs also have their limitations. Graphs are suitable for representing a pattern of monotonous additive causal relations between noncomplex variables. Other relations can only in a simplified way be included in a graph.

3.3 Reflection Of Final Relations in Goal Trees

Somewhat related to Axelrod's causal analysis, although distinguishable from it, is the reflection of final (goal-means) assumptions underlying a policy in goal trees. This approach can be found in Suchman (1967), Patton (1978), and Kuypers (1980), although elaborated in different ways.

In order to achieve a definition of the action theory of a policy program, it is necessary, according to Patton, to construct the goal-means hierarchy of that program. He refers to Suchman's (1967) recommendation to start the construction of a chain of goals and ultimate goals. The objective of an accurate definition of a "theory of action" of a policy is, according to Patton, to help policy makers in stating explicitly their assumptions about all links and activities necessary for attaining the ultimate results. The evaluation of the policy may then be concentrated on those relations about

which information is most needed (Patton, 1978, pp. 182-187).

The goal-means relations can be represented schematically in a goal tree (Kuypers, 1980). This goal tree can, without much effort, be translated into causal hypotheses. A policy theory, however, does not only include causal assumptions that can be deduced directly from the goal-means relations. Other assumptions about causal relations in the policy field and the policy process, for example about the causes of the policy problem, also belong to the policy theory. These assumptions cannot be deduced from the goal tree.

3.4 The Process Approach

It is not uncommon to represent a decision-making process or an implementation process graphically in terms of a decision tree or a decision path (Pressman & Wildavsky, 1974, pp. 76, 111, 114, 115, 145). One can however go a step further and mark a policy theory on a map of the policy field, that is on a map of the social processes in the relevant sector of society. The analysis starts then with a survey of processes and elements in the policy field. The actors involved in these processes can also be indicated. In the reconstruction of a policy theory, in one of the above mentioned ways, such a survey of the field process can be used as a starting point. The policy theory is then not so much mapped out, but marked out on a map of the process in the policy field. This process model provides the reconstructed policy theory with a context that enables the tracing of mistakes and gaps regarding the processes and the behavior of the actors involved (Bressers, 1983, pp. 24-46).

3.5 The Construction of Decision Trees and Quantification of Chances

In connection to normative decision theory, Gallhofer and Saris (1979, 1984) and Saris (1984) distinguish five basic elements in decisions and implicitly in policy theories as well, namely actions, consequences, chances of these consequences, estimations of these consequences, and decision rules. They have applied this distinction to the analysis of decisions and argumentations (Saris & Gallhofer, 1979).

What is added here is especially the estimation of the chance of certain consequences occurring and the effort to quantify this chance. In practice the quantification meets with great problems. The estimated chance or in other words the uncertainty of the actor regarding consequences may, however, be included in the reconstruction of the policy theory without any quantification.

3.6 Combining Different Ways of Reconstructing Policy Theory

The different methods for the reconstruction of (elements of) a policy theory each have their own possibilities and limitations. The restrictions of the various approaches may, however, be met by combining two or

more ways of reconstruction. Generally speaking, the following method is effective for the reconstruction of policy theories.

1. Collect statements from the policy designers and decision makers about the policy at issue (for example policy notes, congressional records, and interviews).
2. On the basis of the collected statement, consider which are the social processes in the policy field (the relevant sector of society), with their inputs and outputs.
3. Trace the goal-means relations by constructing a goal tree with ultimate goals, intermediate goals, and means. Translate the explicit goal-means relations into (causal) hypotheses. Fill in the links that have remained implicit. The hypotheses may be formulated causally (A causes B), or not causally (The more A, the less B). If possible, also indicate the extent of certainty of the actor regarding these final and causal relations (the chance of effects).
4. Trace the explicit cause-effect relations. Translate them into (causal) hypotheses. Fill in the links that have remained implicit. If possible, also indicate the extent of certainty of the actor regarding the cause-effect relations (the chance of the effects).
5. Trace the explicit normative relations. Translate them, as far as possible, into (causal) hypotheses. Fill in the links that have remained implicit. As far as the normative relations cannot be translated into (causal) hypotheses, they form the normative framework of the policy theory (policy ideology). If possible, also indicate the extent of certainty of the actor regarding the cause-effect relations (the chance of effects).
6. Reconstruct the total of the (causal) hypotheses (steps 3, 4, and 5) to a coherent total of causal hypotheses (the reconstructed policy theory).
7. If required, the total may be transformed into graphs and submitted to a graph-theoretical analysis.
8. If chances and values have been quantified by the actors, they can be reflected quantitatively.

Depending on the labor time available for the reconstruction, the reconstruction can be limited to fewer steps (for example to 1, 3, 4, and 6).

The techniques for reconstruction of policy theories discussed here also have a number of imperfections in common. None of them, for example, pays sufficient attention to normative relations. A technique will have to be developed for it to link up with literature about political argumentation (Dunn, 1981, pp. 40-45, 64-94; Goodin, 1982; Harmon, 1981; Vedung, 1982).

A problem sometimes too easily missed by the methods and techniques discussed is the distinction between explicit and implicit assumptions. The way in which implicit assumptions are traced and made explicit is susceptible to discussion (cf. Axelrod, 1976, pp. 83, 84, 89; Leeuw, 1983, pp. 145-153).

A final objection is that in the literature insufficient attention is paid to the relation between an inductive and a deductive working method. The techniques described are inductive in the sense of aiming primarily at more or less concrete and spontaneous statements by members of the political elite and trying to discover a more abstract pattern (a policy theory) in it. A more deductive method would examine how far the assumptions from a scientific theory are also to be found in a policy theory of members of the political elite.

4. EVALUATING THE QUALITY OF A POLICY THEORY

A policy theory consists not only of loose ideas, but of a total of assumptions underlying a policy. At least three questions come up regarding this total: (a) What is the limit of a policy theory? (b) What structure does a policy theory have? (c) How is the quality of a policy theory to be evaluated?

It is preferable to restrict the notion of policy theory to assumptions of a particular actor that are involved in designing and making a policy. The level of abstraction and the complexity of the policy theory will vary strongly, depending on whether one should consider an entire department to be an actor or just one of its subdivisions or even a certain official. Of these actors, only those assumptions belong to the policy theory that bear reference to that policy. How should it be established which assumptions they are? Operationally speaking, the best choice seems to be to restrict the policy theory to assumptions that occur in the argumentations of the designers, decision makers, and implementors of a pol-

icy. Seen even more operationally, a policy theory is found in argumentations that are explicitly or implicitly embodied in a written or oral explanation by policy makers about a particular policy. This does not mean that the assumptions underlying the policy are identical to the argumentations. The two collections will usually only partly overlap each other.

In thinking about the structure of policy theories, three approaches are reflected that can generally be distinguished in our thinking about the arrangement of political ideas. The first approach (the ideas approach) is primarily interested in the contents of the political ideas. The second approach (the perception approach) is mainly aimed at the patterns of political perceptions. The third approach (the argumentation approach) specifically studies the validity of political argumentations.

The first approach, which is primarily interested in *the contents of the political ideas*, is reflected in studies about the historical development of a certain policy

and the attendant policy theories. In research that is occupied with policy and policy theories in a more behavioral way, the contents of the political ideas often get marginal attention.

The *perception approach* in the study of policy theories is especially aimed at the patterns of political perceptions. An important application of this view on policy theories is to be found in Axelrod's (1976) analysis of "cognitive maps."

Other researchers have also made significant discoveries about the patterns of policy theories. Eulau and Prewitt (1973), for example, ascertained that the "policy map" may be more or less diverse. Some policy maps are confusing because they are too detailed, others show only the main lines and are easy to read (Eulau & Prewitt, 1973, pp. 522 and further).

Observations by Putnam (1976) correspond with this analysis. Some politicians aim at the details of an issue and argue inductively, also on the basis of personal experience. Others give a more synoptic analysis and argue more deductively on the basis of general theories and abstract notions such as capitalism and socialism. Leaders that give a more ideological analysis tend to have more complex notion schemes than their more empiricist colleagues (Putnam, 1976, p. 91).

A third approach to the structure of political views in general and policy theories in particular is the *argumentation approach*. This approach is not only interested in the structure, but also in the *quality of political expositions*. In other words, it consists not only of an analysis, but also of an evaluation of policy theories. An example of this evaluating approach can be found in Evert Vedung's book about Political Reasoning (Vedung, 1982, pp. 31-38).

In research into policy theories, it is desirable that the contents of the ideas, the patterns of perceptions, and the validity of the argumentations be carefully studied. In principle, each of the three approaches in the study of policy theories can aim at each of the three kinds of assumptions or argumentations that policy theories are composed of:

1. normative argumentations, with a reasoning from a principle to a norm or vice versa, or with an assessment of an existing or expected situation in the light of a principle or norm;
2. causal argumentations, with a reasoning from a cause to a consequence or vice versa;
3. final argumentations, with a reasoning from an end to a means or vice versa (a partly related division is given by Dunn, 1981, pp. 67, 68 and further).

The *criteria for the evaluation* of the quality of a policy theory may partly be taken from the structural features of policy theories that have been indicated before. They can also (Leeuw 1983, pp. 133-167), partly be

taken from literature about requirements that scientific theories have to meet. In doing so, the question should be answered how far scientific demands can be made on assumptions from policy practice.

Some criteria, with the help of which the quality of policy theory may be evaluated, are: the precision of formulation, the differentiation, the integration, the empirical value, and the legitimacy of the policy theory. They can be made more operational as follows (see Axelrod, 1976, pp. 262-265; Eulau & Prewitt, 1973, pp. 523, 524; Leeuw, 1983, pp. 153-166; Putnam, 1973, pp. 80-91; Vedung, 1982, pp. 31-39, pp. 246-294).

The *precision of formulation* (exactness) of a policy theory is composed of three elements:

- the concept precision, that is, precision of concept definition in a policy theory, compared with the one in the scientific literature;
- the question whether or not causal theories are discussed in quantitative terms in a policy theory;
- the extent to which a policy theory gives a specification of the period of time within which the policy should be executed so as to be effective.

The *differentiation* (diversity in the analysis) is also composed of three elements:

- the information range, that is, the diversity of aspects of the relevant part of social reality (variables) that come up for discussion in the policy theory;
- the question whether the causality in the policy theory runs in one direction or more;
- the question whether or not the policy theory explicitly distinguishes between manipulable and non-manipulable variables (i.e. between variables that are susceptible of being influenced by the policy or not).

The *integration* (systematics and synthesis) of the policy theory comes from the consistency of the policy theory. Here the issue is:

- the question whether the policy theory consists of a coherent theory or of individual hypotheses;
- the question whether the hypotheses which the policy theory is composed of are not mutually contradictory.

The *empirical value* of the policy theory is composed of two dimensions:

- the extent to which the policy theory corresponds with experiences from empirical research;
- the extent to which the social constraints from which the policy theory starts correspond with the actual constraints, as far as they have been fixed empirically.

The *legitimacy* of the policy theory is the extent of support for the policy theory among policy makers, other members of the political-administrative elite, and the goal group.

Such criteria for the evaluation of the quality of a

policy theory can partly be used in research from behind the desk. The empirical value also may be tested by means of evaluation research concerning policy effects.

5. DETERMINANTS OF POLICY THEORIES

Much is already known about the factors that affect political views and attitudes. There has, however, been little research into the factors that determine the structure and the quality of policy theories. The determinants of the structure and the quality of policy theories may be found in (a) the political subculture; (b) the role of the person; (c) the nature of the political process; (d) the policy field; and (e) the influence of new information.

In order to get more insight in the determinants of policy theories it is important to compare policy theories not only in space but in time as well. Thus, the knowledge of the dynamics of a policy theory can also be increased.

6. EFFECTS OF POLICY THEORIES

The structure and quality of policy theories have effects on the policy contents, the policy process, and policy results.

The influence of policy theory on policy contents can be shown by the fact that, for example the impression of the causes of underdevelopment is an intervening variable between the social position and political orientation of the foreign political elite on the one hand and the attitudes of this elite towards development aid on the other hand. Two visions were distinguished regarding the causes of poverty. In the one vision the causes of poverty were ascribed to internal factors within the poor country. In the second vision, poverty was considered a situation caused from outside the country and maintained or aggravated by external factors: exploitation, protectionism by the West, dependent market positions, and monocultures stimulated by the West. It was discovered that 84% of the "ex-group" within the Dutch Christian Democrat Party (CDA) were advocates of an increase of development aid, against 44% of all CDA-supporters and only 19% of the "in-group" (Tempel, 1978).

As far as the effects of policy theory on *policy making* are concerned, Axelrod (1976) summarizes his vision on the relation between cognitive maps and decision making in the following propositions:

- 1) Decision makers want to be rational; 2) Decision makers have limitations in their cognitive capacity; 3) Because of these cognitive limitations they simplify their view of their policy environment; 4) The particular ways in which they simplify their images of the policy environment include the failure to recognize feedback mechanisms; 5) Such simplifications are costly in yielding less accurate images, less sophisticated policy choices, and ultimately less satisfactory outcomes than are necessary, even given a decision maker's own concepts, beliefs, and values; 6) Decision makers can

therefore become more sophisticated through the use of cognitive mapping techniques applied by them to their own cognitive maps, and to the cognitive maps of others. (p. 248)

A policy map that is too detailed and too diverse may prevent important decisions from being made. A policy map that is too simple and not specific enough cannot lead to appropriate action (Eulau & Prewitt, 1973, p. 524).

The influence of policy theories on the implementation process comes up for discussion where attention is drawn to the fact that the policy theories of policy makers and policy implementors may diverge. This can contribute to the fiasco of the implementation and also of the policy (cf. Sabatier & Mazmanian, 1980, p. 545).

With regard to the effects of policy theory on policy evaluation, it has been remarked that the absence of an explicitly formulated policy theory (impact model) prevents the replication of the program and seriously limits the possibilities for supervising the quality and evaluating the effectiveness of the program (Freeman & Sherwood, 1970, p. 8). A good evaluation research aimed at measuring and explaining policy effects starts with an analysis of at least part of the policy theory underlying the policy (Patton, 1978, p. 181).

About the relation of policy theory with the results of a policy (particularly goal attainment), one of the conclusions from evaluation research is that policy failure can be partly accounted for by the policy theory (Freeman & Sherwood, 1970; Patton, 1978). Little attention has been paid, in evaluation research however, to the measurement of the quality of the policy theory. We are in need of research aimed at providing more clarity about the relations between the quality of a policy theory and the success or failure of a policy.

A plausible hypothesis is that the goal attainment of

a policy will be higher as the precision of formulation, the differentiation, the integration, the empirical value, and the legitimacy of the policy theory are higher. It is also possible that a simple, vague, and principally appealing policy theory gets more support and contributes more to the success of a policy therefore than a differentiated, precise, and empirically correct policy theory.

Such hypotheses will have to be considered in evaluation research on the relations between the quality of a policy theory and policy effects. Research on knowledge utilization is also relevant in this connection (cf. Dunn & Ginsberg, 1986; Dunn, Holzner, & Zaltman, 1985).

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