Chapter 3
Perspectives on Policy Analysis: A Framework for Understanding and Design

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3.1 Introduction

As made clear by the discussion in Chap. 2, policy analysis is a multifaceted field in which a variety of different activities and ambitions have found a place. Some policy analysts conduct quantitative or qualitative research, while others reconstruct and analyze political discourse or set up citizen fora. Some policy analysts are independent researchers, some are process facilitators, while others act as political advisers (Dror 1967; Jenkins-Smith 1982; Durning and Osuna 1994). The debate on the discipline—for example on its foundations, underlying values, and methods—is conducted in a fragmented way (Dunn 1994; Brewer and DeLeon 1983; Hogwood and Gunn 1984; Bobrow and Dryzek 1987; Wildavsky 1987; DeLeon 1988; MacRae and Whittington 1997; Hawkesworth 1988; House and Shull 1991; Weimer and Vining 1992; Fischer and Forester 1993; White 1994; Radin 1997; Mayer 1997; Hoppe 1998; Shulock 1999; Lynn 1999).

The variety and multifaceted nature of policy analysis makes it clear that there is no single, let alone 'best', way of conducting policy analyses. The discipline consists of many different schools, approaches, roles, and methods. The observed diversity of policy analysis gives rise to numerous questions. If we are unable to construct cohesion and unity behind this great diversity, we cannot speak of a discipline.

In Chap. 2, we reasoned from the outside in: the implications of different policymaking models for policy analysis. In this chapter, we will reason from the

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inside out: from policy analysis activities and styles, to their implications for policymaking. What relationship exists between the different schools and activities in policy analysis? Do they exclude each other or are there—in practice—numerous hybrids and combinations? What conceptual framework do we have at our disposal if we need to demarcate the discipline, design new methods and approaches, or evaluate projects? Can we enrich the methodological toolbox by adding new methods? What is the relationship between policy analysis methods and new insights from the policy sciences, such as interactive policy development and process management (Edelenbos 1999; de Bruijn et al. 2002)? These are important questions that we obviously cannot answer in full and all at once, but for which we hope to provide a framework.

The great diversity of views, schools, and methods easily causes confusion and gives rise to the need for insight into the discipline for insiders and outsiders alike (Radin 1997; Lynn 1999). Various attempts have been made to untangle and explain policy analysis as a methodical discipline. Some well-known examples of models in which activities and methods are systematically related can be found in Dunn (1994), Brewer and DeLeon (1983), Hogwood and Gunn (1984), Bobrow and Dryzek (1987), Miser and Quade (1985), Patton and Sawicki (1986), Weimer and Vining (1992), and Mayer (1997).

It is precisely because of the varied developments in policy analysis and the diffuse image that they create of the field that this chapter seeks to make the field transparent and to structure it with the help of a framework or conceptual model. Structuring will not take place by choosing a specific author, perspective, or school, but rather by displaying the variety of views of policy analysis. It is not our intention to adopt a normative standpoint on what the most preferable form or style of policy analysis should be. This chapter provides a framework for positioning the different perspectives and for highlighting the implications of choosing a perspective when designing or evaluating a policy analysis project. A somewhat broader view of policy analysis will be taken in this chapter compared to the other chapters of the book. All activities related to policy research and advice are taken into account, in order for the conceptual model to cover everything that may be considered to be part of policy analysis in the literature.

The conceptual model presented here has three functions. First, structuring the field into activities and styles provides a greater insight into and overview of the diversity of policy analysis. The model is a means to demarcate and understand the field as a whole. Second, when designing a particular policy analysis project, the analysts will select methods and tools they consider to be appropriate. The model can support choosing existing methods and designing new methods. Third, we believe that the quality of a policy analysis project can be judged from different perspectives. The model helps to formulate the values pertaining to a perspective, values from which criteria for the evaluation of a policy analysis project can be derived. In the following sections, we will develop the conceptual model step by step. The activities and styles are portrayed in an archetypical way, i.e., the way they are presented in the literature by proponents of the style.

3.2 Policy Analysis Activities

Our strategy in developing the conceptual model has been to first address the question: "What general activities do policy analysts perform when it comes to supporting policy and policy processes?" We distinguish a number of major clusters of activities. These clusters of activities have been identified using both authoritative literature on policy analysis as well as by studying exemplary and contrasting cases of actual policy analyses in the fields of water management, transport, environment, genetic and medical technology, science and technology policy, and spatial planning and construction (Mayer et al. 2004). The six major clusters of activities are:

1. Research and analyze
2. Design and recommend
3. Clarify values and arguments
4. Advise strategically
5. Democratize
6. Mediate

In real-life cases and projects, a policy analyst will combine one or more of the six activities, albeit not all at the same time. As more activities are combined, a policy analysis project will become richer and more comprehensive, but also more complex.

The hexagon in Fig. 3.1 is a diagrammatic representation of these six activities. The theoretical foundation will be discussed later in this chapter, when we show the policy analysis styles and criteria on which the clustering of activities has been based. In this section, we focus on the six activities and illustrate these with the help of examples based on actual policy analyses. At the end of this section, we look at the relations among the various activities in more detail.

1. *Research and analyze*

Has the number of cases of driving under the influence of alcohol increased compared to previous years? Has privatization of public utilities and services led to lower prices for consumers? Is our climate really changing? And if so, how is it likely to affect coastal regions?

Questions like these, which are highly relevant to policy, are about facts, causes, and effects, and therefore call for scientific research. In some respects and manifestations, policy analysis is indeed a form of applied research (cf. Dunn 1994) that uses research methods and techniques that are scientific or derived from science, such as surveys, interviews, statistical analysis, but also simulation and extrapolation. This cluster of activities matches with a perspective on policy analysis as knowledge generation. Knowledge institutions, such as statistical agencies, semi-scientific research institutions, and research agencies, gather and analyze, on request and at their own initiative, knowledge and information for policy purposes. It is possible that the political agenda influences their research

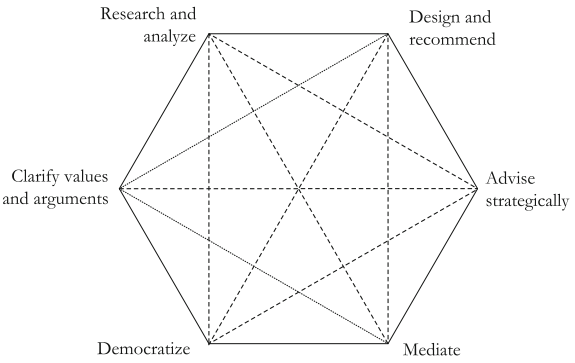

Fig. 3.1 Activities in policy analysis

priorities, but the results of their autonomous research activities may also influence the political agenda. Translation of the results of their research into a policy design or recommendation is not a primary part of their task or mission. It is up to the political system to identify consequences and draw conclusions from the best available knowledge. Box 3.1 contains an example of a policy analysis project in which the research and analyze cluster was of particular importance.

Box 3.1: Research and Analyze—The IMAGE 1.0 Model

The IMAGE project (integrated model to assess the greenhouse effect) is an example of research and analysis in the field of climate change. The example dates back to the situation prevailing in the mid-1980s, when climate change was not yet a major political issue in the Netherlands. After developing a successful prototype, the Dutch National Institute for Public Health and the Environment (RIVM) started developing the IMAGE 1.0 model in 1986 (Rotmans 1990). IMAGE 1.0 used simplified models of the carbon cycle and of atmospheric processes to calculate future atmospheric greenhouse gas concentrations and the accompanying changes in temperature and sea level for a number of different scenarios of future emissions of greenhouse gases. IMAGE 1.0 was the first model in which an attempt was made to integrate the climate system all the way from emissions to effects. The output of IMAGE 1.0 attracted public and political attention because the model's results were incorporated in the first Dutch national environmental outlook in 1988. The results in themselves were not new, but the integrated picture of impacts of different emission scenarios helped to put the climate issue high on the political agenda (van Daalen et al. 2002).

2. *Design and recommend*

What can government do to improve the accessibility of large cities? What measures can municipalities take to improve local safety? How can the container storage capacity in harbor areas best be increased—by improving utilization of existing capacity or by creating more capacity?

These policy questions are mainly design and solution oriented. When sufficient data and information have been gathered in earlier research, a policy analysis will focus on translating the available knowledge into new policy, either by making recommendations or by making a complete policy design. Recommendations will typically be the result of comparing the effects of different policy alternatives and weighing the options based on various criteria. Policy analysts in this way are supportive to the policy process by translating available knowledge into new policy either by advising or by making (partial) policy designs in terms of 'actions-means-ends'. A complete policy design typically involves generating and comparing the estimated outcomes of a set of alternative strategies, each of which may consist of several policy options aimed at achieving particular objectives or subgoals (Walker 1988; Walker 2000). Box 3.2 contains an example of a project in which the prime consideration was the assessment of alternative strategies.

Box 3.2: Design and Recommend—the FORWARD Study

The following project in the field of freight transport is an example in which a policy analysis was aimed at design and recommendation. At the end of the 1980s, the Dutch Government was faced with the goals of sustainability as well as economic growth in the transport sector, and decided that action needed to be taken. The proposed policy was published in a policy document in 1990. This document, however, did not include many policy statements on freight transport, and various parties argued that there could be more attractive alternatives to a number of the policy options that had been suggested (Twaalfhoven 1999). As a result, a broad study was commissioned. This analysis of Freight Options for Road, Water And Rail for the Dutch (FORWARD) was carried out by RAND Europe. It examined the benefits and costs of a broad range of policy options for mitigating the negative effects of the expected growth in road transport while retaining the economic benefits (Hillestad et al. 1996). The study involved the development of a comprehensive policy analysis model and the identification of some 200 policy options that might be combined into various strategies for improving freight transport. The model enabled the design and assessment of individual policy options and combinations of options (strategies) for several economic scenarios extending to the year 2015.

3. *Clarify values and arguments*

Why, or more accurately about what, is there a clash of opinions between supporters and opponents of river dike enforcement or the expansion of a national airport? What values and arguments come to the fore as regards approving or

rejecting developments in the field of modern genetic technology, as in the case of prenatal diagnosis and cloning?

There will always be implicit normative and ethical questions and opinions behind public policy. Prolonged conflicts and social issues that turn into stalemates often come about through fundamental normative and argumentative differences (van Eeten 2001; Fischer and Forester 1993). Abortion, euthanasia, and drilling for natural gas in protected areas are examples of such issues. Policy analysis may not only make instrumental recommendations for policymaking; it may also analyze the values and argumentation systems that underpin the social and political debate. Moreover, policy analysis seeks to improve the quality of the debate by identifying the one-sided or limited nature of arguments or showing where blind spots exist in the debate (Fischer and Forester 1993; Hoppe 1998). Box 3.3 contains an example of the clarification of the arguments of different stakeholders.

Box 3.3: Clarify Values and Arguments—Civil Aviation Infrastructure

An example of a project in which argumentation analysis was used, is a policy analysis commissioned in 1997 by the Future of Dutch Civil Aviation Infrastructure project (TNLI). Representatives of the Ministry of Housing, Spatial Planning and Environment, the Ministry of Transport, Public Works and Water Management, and the Ministry of Economic Affairs joined forces in a project group to prepare policy on this subject. The aim of the policy analysis was to put forward recommendations for the design of, and agenda-setting for, a broadly based public debate. A discourse analysis formed part of this policy analysis (van Eeten 2001).

The debate on the future of Amsterdam Airport Schiphol regularly boils down to a dichotomy: either for or against expansion. However, this dichotomy contrasts with the wealth of ideas that come to the surface in the real debate. In the analysis, the Q- methodology was used to reconstruct and understand the underlying lines of argumentation. A study conducted among 38 representatives of the actors involved revealed the existence of five important views or policy arguments that fell outside the confines of the simple for-or-against setting. An example is “search for sustainable solutions for a growing demand for mobility”. By ignoring these views of the problem, options and arguments that could lift the debate out of the growth/no-growth dichotomy are left unutilized. The recommendations that resulted from this discourse analysis were used in the design of the public debate, in which discussion platforms were set up based on the five policy arguments.

4. *Advise strategically*

What should a government minister do to bring about acceptance of road pricing plans? What strategy can a government minister adopt to allocate radio frequencies?

These questions illustrate that policy analysis will often be a strategic, client-oriented activity. The substantive or procedural advice will be made dependent on

the analysis of the field of forces that exist, i.e., the environment in which the client and his problem are located. The policy analyst will advise the client on the most effective strategy for achieving certain goals given a certain political constellation, i.e., the nature of the environment in which the client operates, the likely countersteps of opponents, and so on. Box 3.4 contains an example of a policy analysis project that emphasized the 'advise strategically' cluster of activities.

Box 3.4: Advise Strategically—Waste Discharge Policy

A policy analysis in which strategic advice was given to the Dutch Ministry of Transport, Public Works and Water Management addressed the problem of discharges into the sea of waste substances by the titanium dioxide industry (Rijkswaterstaat 1983). Titanium dioxide is produced for the paint industry. Its production releases waste substances that were still being discharged into the North Sea at the time the study was conducted in the 1980s. Some companies had exemptions for the discharge of environmentally harmful waste substances. As the expiry date of the exemptions approached, the Dutch government had to determine its position on the future strategy for discharges. Circumstances the government had to consider included the possible reactions of producers—they could have decided to continue the discharges elsewhere—and developments in the sector, such as European Union regulations. The Directorate-General's policy analysts used a decision-event tree to analyze how producers might respond to decisions concerning the final dates for discharges. The analysts made allowance for uncertainties regarding the availability of alternative production technologies, and the time of development of European legislation in this field. The Dutch government adopted their strategic advice.

5. *Democratize*

How can citizens receive more and better information about how to have their say in decisions regarding important social issues like genetic technology or a new metro line? How can citizens make an informed choice when it comes to a tricky and difficult question like the reconstruction of a railway station area?

In the 'democratize' cluster of activities, policy analysis does not have a value-free orientation, but a normative and ethical objective: it should further equal access to, and influence on, the policy process for all stakeholders (DeLeon 1994, 1988; Lerner and Lasswell 1951). In many policymaking situations, experts and elites are more likely to be involved and carry greater weight than ordinary citizens and laymen (Fischer 1990). Policy analysis can try to correct this inequality by calling attention to views and opinions typically overlooked in policymaking and decisionmaking (Fischer 2000). Box 3.5 gives an example taken from the field of technology assessment (Mayer 1997).

Box 3.5: Democratize—Genetic Modification

An example of a democratization project is the first Dutch consensus conference that was organized in 1993 by the Dutch parliamentary technology assessment organization to address the issue of the genetic manipulation of animals. In this public debate, citizens discussed the subject with all kinds of experts, such as researchers, representatives of environmental groups, industry, and ministries. The panel consisting of sixteen laymen was selected from people who responded to a newspaper advertisement, and the organizers prepared the panel for the debate over two weekends of meetings. The preparations resulted, among other things, in a list of questions for the experts. The actual debate took place during a weekend in which ideas, problems, risks, and choices were discussed. At the end of the second day, the participants wrote a final declaration that was published and also presented to Parliament. Today, the participation of laymen plays a more prominent role in technology assessment. The consensus conference format, originally a Danish method for public participation, has been adopted in many countries (Mayer 1997; Joss and Belluci 2002).

6. *Mediate*

How can industry and government agree on the moderation of their dispute about the possible harm caused by zinc emissions to the environment and health? How can they deal with conflicting findings of scientific research on this matter? What is a good process for exploring the future of a municipality with all stakeholders, such as citizens, businesses, etc.?

These questions show that resolving policy issues may require mediation. Policy analysts can play a role in enhancing the knowledge actors have about their own position, about the actors' room for maneuvering, and in looking for possible compromises and win-win options. In addition, they can be involved in designing the rules and procedures for negotiating in a policymaking or decisionmaking process, and in managing the interaction and progress of that process.

The mediation cluster comprises different types of activities, with a focus on analyzing contextual factors (e.g. dependency analysis, transaction analysis), and designing, and possibly also facilitating, meetings in which different stakeholders and decisionmakers consult and negotiate. Box 3.6 contains an example of a policy analysis that emphasizes mediation activities.

Box 3.6: Mediate—Recreation and Tourism Development in the Utrechtse Heuvelrug National Park

An example of mediation can be seen in the support of a policy development process for the recreation and tourism sector in the municipality of Rhenen (Timmermans 2004). In response to the designation of a new national park in the Netherlands, the municipality of Rhenen, which is located at the southern end of the park, commissioned a project to reformulate its recreation and tourism policy plan. Although an integrative approach to planning was seen as desirable in developing the plan, in practice a sectoral approach was taken and participation of stakeholders in development of the area was limited to roundtable meetings. The limited progress that was achieved motivated the design and execution of an intervention workshop. The objective was not to decide on the future development of the area or to repeat ongoing discussions, but to analyze and present interdependencies among actors and to indicate potential for cooperation. The transactional approach (Timmermans 2004) was applied in this intervention. The actors were first identified in a three-round Delphi. During the workshop a limited number of issues were first derived in a facilitated discussion. Actors then modeled their own perception of dependencies on other actors using an interactive visual modeling tool. In addition, each actor assessed his interests in and control over the issues. This was followed by a discussion using a comparison among the individual assessments and calculations across all assessments.

3.2.1 Relationships Among the Activity Clusters

Depending on the specific policy analysis design (see Chap. 5), one or more of the activity clusters may become dominant, while other activities may play a subordinate role in certain (phases of) projects, or be irrelevant. In Fig. 3.1, we have arranged them in such a way that activities we consider to be most akin are shown alongside each other. For example, 'design and recommend' activities are a logical extension of 'research and analyze' activities, and 'clarify values and arguments' activities can feed into 'democratization' and 'mediation' activities.

The further away activities are from each other, the greater the field of tension for uniting the activities will be. A scientific research activity can easily conflict with the pragmatic and involving nature of mediation among actors. But if we identify opposing activities as fields of tension, we certainly do not mean that these activities are incompatible. The tension will have to be resolved in the specific policy analysis design. It will be necessary to make an 'arrangement' whereby—for example—the analysis of arguments and underlying values can support the mediation and dialog among conflicting standpoints; or whereby the design of the analyst is produced through open and equal dialog with citizens, laymen, and stakeholders. It is precisely the bridging of these tensions that generates innovation in projects and methods.

Combinations of two adjacent clusters of activities can be traced to specific *styles* of policy analysis. We will look at this matter of styles of policy analysis in the next section.

3.3 Policy Analysis Styles

It is the objective of the hexagon model to clarify and understand the discipline of policy analysis. Numerous schools of thought, paradigms, and models can be found in the policy analysis literature (Bobrow and Dryzek 1987; DeLeon 1988; Hawkesworth 1988; House and Shull 1991; Mayer 1997). In this section, we will refer to *styles* of policy analysis rather than to a paradigm, model, or school.

3.3.1 Six Styles of Policy Analysis

Based on the schools discussed in the literature and on the conceptual framework in Fig. 3.1, we have identified six policy analysis styles. Each style is associated with the side of the hexagon linking two adjacent vertices. The styles are:

1. Rational style
2. Argumentative style
3. Client advice style
4. Participatory style
5. Process style
6. Interactive style

Figure 3.2 shows how these six styles relate to the six activities shown in Fig. 3.1. In what follows, we briefly discuss the styles in an archetypical manner, presenting the arguments that are used by proponents of each of the styles.

1. *Rational style*

The rational style of policy analysis is shaped to a large degree by assumptions about knowledge and reality, and by a relatively large distance between the object and subject of study. It is assumed that the world is to a large extent empirically knowable and often measurable. Knowledge used for policy must be capable of withstanding scientific scrutiny. The role of knowledge in policy is a positive one, i.e., a greater insight into causes, effects, nature, and scale produces better policy (Weiss and Bucuvalas 1980). Policy should come about—preferably—in neat phases, from preparation to execution, with support through research in each phase (see Chap. 2).

An example of this policy analysis approach is the systems analysis method developed by the RAND Corporation (Quade 1989; Miser and Quade 1985; Walker 2000). The advice on policy regarding the Eastern Scheldt storm surge

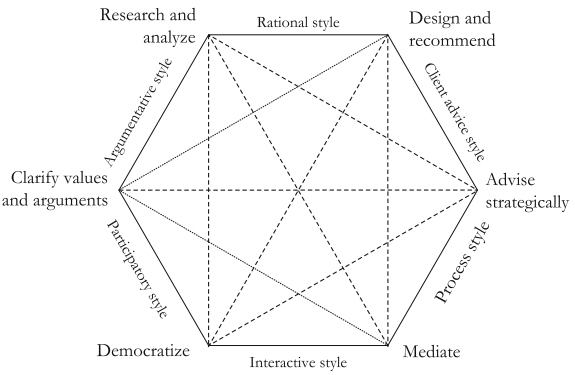

Fig. 3.2 Policy analysis styles

barrier in the Netherlands was obtained using this method (Goeller et al. 1977). This style is discussed in many general textbooks on methods of policy analysis (Patton and Sawicki 1986; MacRae and Whittington 1997; House and Shull 1991).

2. *Argumentative style*

This style assumes that policy is made, defended, and criticized through the vehicle of language. The basic assumption of the argumentative style is that, when analyzing policy, it is important to devote attention to aspects related to the language game that takes place around a policy problem or issue. Attention will shift to the debate and the place in the debate of arguments, rhetoric, symbolism, and stories (Fischer and Forester 1993; Fischer 1995; van Eeten 2001). Arguments aim to have an effect on the public. Therefore, policy analysis will make policy easier to understand by illustrating the argumentations and the quality thereof schematically and making a judgment based on criteria such as justification, logic, and richness (Dunn 1982, 1994). It is not sufficient to identify values and arguments, but the argumentation also has to be valid. The argumentative style assumes that it can make the structure and progress of the discourse transparent and can also bring about improvements by, for example, identifying caveats in the debate.

3. *Client advice style*

The client advice style is based on the assumption that policymaking occurs in a complex and rather chaotic arena. There are numerous players, each having different interests and strategies (de Bruijn and ten Heuvelhof 2000; de Bruijn et al. 2002). Therefore, it is wise to gain insight into the various objectives, means, and interests of the actors involved. For that reason, the analysis of this complex environment is important and can be undertaken analytically and systematically by such means as stakeholder analyses, although intuition and soft information definitely play a role. Besides knowledge and insights gained through research, policy analysis is largely a question of politico-strategic insight and skills, including client–analyst communication. In addition to being a skill—methodical and explicit—policy analysis is also an art, in which tacit knowledge plays an important role (Wildavsky 1987).

4. *Participatory style*

Participatory policy analysis is based on the fact that traditionally, for a variety of reasons, some stakeholders are not included in the policymaking process, which can lead to values and arguments being overlooked and difficulties in policy implementation. Researchers, economic elites, institutionalized non-governmental organizations, and politicians often dominate policy discussions about major social issues (Jasanoff 1990). Researchers, stakeholders, and policymakers may even change roles and positions within one and the same system. Certain subjects, and also certain groups of actors, are often excluded from the social debate. This is referred to as the technocratic criticism of policy analysis (Fischer 1990). Participatory policy analysis assumes that citizens can have a voice and be interested enough to deliberate on substantive and politically difficult questions (Dryzek 1990; Fishkin 1991; Durning 1993; DeLeon 1994; Mayer 1997; Fischer 2000). It assumes that there may be several different sets of values and perspectives on a policy issue, and that the analysis should include these different points of view. The policy analyst can take on a facilitating role in such deliberations by promoting equality and openness in the entire project—giving ordinary citizens and laymen a role alongside others in the policymaking process (Mayer 1997)—and/or by ensuring that all relevant arguments are included in the debate.

5. *Process style*

Just as in a game of chess, the parties that participate in a policymaking process will exhibit strategic behavior in the pursuit of their own objectives and achievement of the best possible positions, even if such action runs counter to the public interest formulated in policy (de Bruijn et al. 2002). It is perfectly understandable that, in controversial and complex issues, opponents will underpin their case with conflicting research reports. Impartial experts do not exist, and a solution introduced through a new report or study can actually aggravate the problem. In fact, in this style, knowledge is (not much more than) negotiated knowledge. It is better to negotiate and reach agreements about the use of the results of a study or jointly contract for the research (de Bruijn et al. 2002).

The process style of policy analysis is based on the assumption that substantive aspects of a policy problem are in fact equal, or perhaps even subordinate, to the procedural aspects of the problem. The analyst or process manager creates a 'loose coupling' of the procedural aspects and substantive aspects of a problem. Procedural aspects are understood to be the organization of decisionmaking or the way in which parties jointly arrive at solutions to a problem. To that end, agreements can be reached through 'mediation and negotiation'. The analyst will focus on issues related to the process, such as stakeholder objectives, resources, power and strategies, rather than on substantive issues of the situation. If the procedural sides of a policymaking or decisionmaking process have been thought through properly, it will greatly increase the likelihood of substantive problems being resolved. Substantive problems can be made part of a process design, for example, by placing the different substantive aspects on the agenda.

6. *Interactive style*

The interactive style of policy analysis assumes that individuals—experts, analysts, clients, stakeholders, as well as target groups—who are involved in making a decision about a policy problem, may have differing views of the 'same' problem. An insight relevant to policy can be obtained by bringing about a confrontation and interaction of different views. The interactive style has a strong socio-constructive foundation. Different views of reality ("perspectives") can be valid simultaneously. Through continuous interaction and interpretation—the 'hermeneutic circle'—it is possible to gain an 'insight' (Guba and Lincoln 1989).

In the interactive style of policy analysis, target groups and stakeholders are usually invited to structure problems and devise solutions in structured working meetings at which policy analysis techniques may be used (Mason and Mitroff 1981). Through these multiple interactions, the views and insights of the analyst, the client, and the participants are enriched (Edelenbos 1999). The selection of views is obviously crucial. Political considerations (the power to obstruct) and enrichment arguments (what do citizens really think?) may be interwoven. The interaction that is organized among the stakeholders is aimed at an effective exchange of views and is more action oriented (focused on the decision) than in the participatory style. If policy analysis concerns the redevelopment of a city square, for example, stakeholders such as local residents and business people can be consulted by means of workshops about the problems they experience with the present arrangement of the square and their wishes with regard to the new plans. The interactive style assumes that a process like this is informative for decision-makers and planners, is more likely to lead to acceptance and fulfillment of the plans, and can bring about all kinds of positive effects among the participants (learning about each other and about policy processes) (Edelenbos 1999). Community Operational Research (Midgley and Ochoa-Arias 2004) is an example of the interactive style of policy analysis.

3.3.2 Definition of Archetypal Styles

Figure 3.2 shows the policy analysis styles placed in an 'archetypal' way in between the different activities. Every style balances two important activities. The balance does not necessarily need to give equal weight to both activities. Participatory policy analysis balances 'democratization' and 'clarification of values and arguments'. The emphasis may be more on one activity than on the other: citizens can be directly involved in discussions about genetic technology, or the analyst may be mainly interested in the value systems, arguments, and opinions of citizens about the technology and may want to systematize them for the purpose of policy advice.

The argumentative style balances 'research and analyze' and 'clarification of values and arguments'. Some argumentative policy analysts attempt to improve the quality of policy by testing the policy design as thoroughly as possible, or by

building on the consistency, validity, etc., of the underlying arguments (Dunn 1994). This is based on the principle that 'claims must be backed up by facts' ('backings'). The 'formal logic' is dominant in this setting. Others reconstruct arguments, not in relation to scientific quality, but according to their variety and richness. This allows greater scope for normative systems, religion, and intuitive arguments (Fischer 1995).

In a similar way, the rational style balances 'research and analyze' and 'design and recommend'; the interactive style balances 'democratize' and 'mediate'; the client advice style balances 'design and recommend' and 'advise strategically'; and the process style balances 'advise strategically' and 'mediate'.

The styles of policy analysis may thus have different manifestations and emphases. A focus on a certain activity may result in a style leaning more toward one activity than another.

3.3.3 Relating the Styles to Policymaking Models

As implied above, policy analysis styles are influenced and co-defined along multiple dimensions, such as assumptions about science (epistemology), democracy, learning, and change, which are subject to continual change (see Chap. 2). The various frames or models of policymaking described in Chap. 2 can be mapped onto the policy analysis styles as shown in Fig. 3.3. The mapping is meant to be indicative, rather than a precise one-to-one mapping.

1a. The rational style of policy analysis can be related to the rational view of policymaking in which policymaking is regarded as an intellectual activity in which policies are chosen in a rational way using objective knowledge.
1b. Classical amendments to the rational model move away from a purely rational view of decisionmaking, for example by considering satisficing rather than optimizing, and by taking a more pragmatic view that leans more toward the 'design and recommend' type of activity in both the rational and client advice styles.
2. If policymaking is regarded as a political game in which policies are based on political preferences, policy analysis can be related to the strategic end of the client advice style in which knowledge obtained through research is combined with politico-strategic insight and bureaucratic politics.
3. In the garbage can model, policymaking is seen as erratic and volatile. As both substantive and procedural aspects are considered to be relevant, this view of policymaking can be related to the process style of policy analysis. Since problems, solutions, participants, and political events have to be coupled in this view of policymaking, it is more oriented toward interactions among stakeholders than is the case in the client advice style.
4. In the (neo-)institutional view of policymaking, institutions stabilize the interactions among actors into patterns that make it easier for them to deal with new

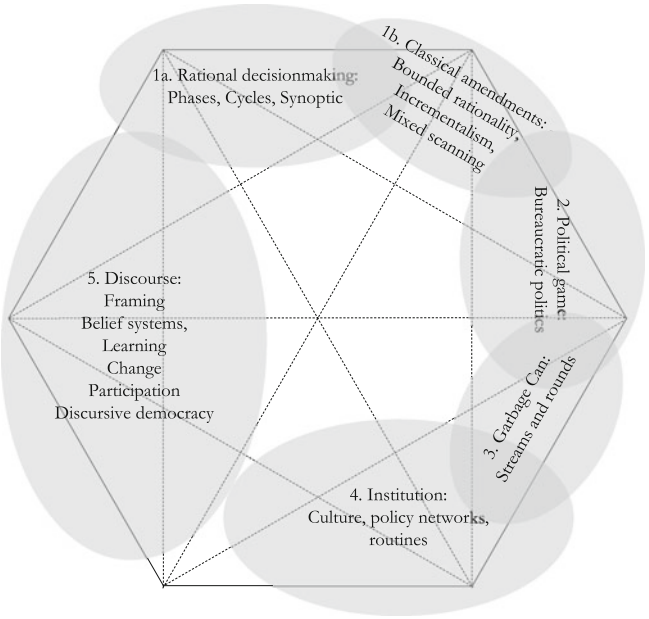

Fig. 3.3 Policy analysis styles related to models of policymaking

policy problems. This requires shared institutional arrangements and institutional settings in which all relevant stakeholders and interests are included. The interactive style of policy analysis can support this view of policymaking, since it emphasizes the confrontation and interaction of disparate views.

5. The discourse model of policymaking focuses on the (quality of) arguments that stakeholders use in a policy debate. This view can relate to both the argumentative style of policy analysis and the participatory style of policy analysis. These policy analysis styles differ with respect to the balance of scientific rigor and representation in the debate, but the point of departure for both is the view on policymaking as a discourse.

3.3.4 Other Ways of Combining Activities

In Sect. 3.3.2, we differentiated among the policy analysis styles by arguing that each one balances two adjacent activities. It is also possible to combine activities that are not adjacent to one another. In other words, a policy analytic arrangement can be made whereby two or more activities that are opposite, rather than adjacent, to each other in the hexagon of Fig. 3.1 are combined. This kind of combination or

arrangement, symbolized by the dashed diagonals in the hexagon, is achievable in two ways: the activities can be carried out sequentially or separately, either in various parts of one policy analysis project or in different complementary or competing projects (i.e. a form of methodological triangulation of activities). As part of a policy analysis project focusing on climate change, for example, research can be conducted first by experts using climate models (activity: 'research and analyze') and subsequently the perceptions and arguments of ordinary citizens and laymen regarding climate change can be mapped out (activity: 'clarify arguments').

The various activities can be integrated into a single project. As part of a project focusing on climate change, for example, climate models can be used to get various groups of stakeholders, experts, politicians, and so on, to jointly generate and test policy proposals, while obtaining feedback from representative citizen panels. Such a project design would integrate several policy analysis activities—in particular, research, design, democratize, and mediate.

3.4 Policy Analysis Evaluation Criteria and Policy Analyst Roles

3.4.1 Criteria for Evaluating Policy Analysis Activities

In addition to demarcating and understanding the field of policy analysis and designing a policy analysis project, the hexagon model has a third function: evaluation of policy analysis projects and methods (Twaalfhoven 1999; Thissen and Twaalfhoven 2001). The various activities are based on underlying values and orientations. The values determine the way a policy analyst or others will view the quality of the policy analysis study, and hence they determine the criteria that will be applied to examine the study. The criteria can be made explicit by addressing the following questions for the styles and then translating these to the related activities:

1. Rational style: what is good knowledge?
2. Argumentative style: what is good for the debate?
3. Client advice style: what is good for the client/problem owner?
4. Participatory style: what is good for society?
5. Process style: what is good for the process?
6. Interactive style: what is good for mutual understanding?

Depending on the activities that are carried out, the criteria related to answering these questions will be different. For example, with regard to 'mutual understanding', more emphasis will be placed on transparency in a 'democratize' activity, whereas, in a 'mediate' activity, commitment will be more important.

Figure 3.4 shows that the activities in the top half of the hexagon are primarily object-oriented activities: a system, a policy design, an argumentative analysis. The activities at the bottom are subject-oriented activities. They focus primarily on

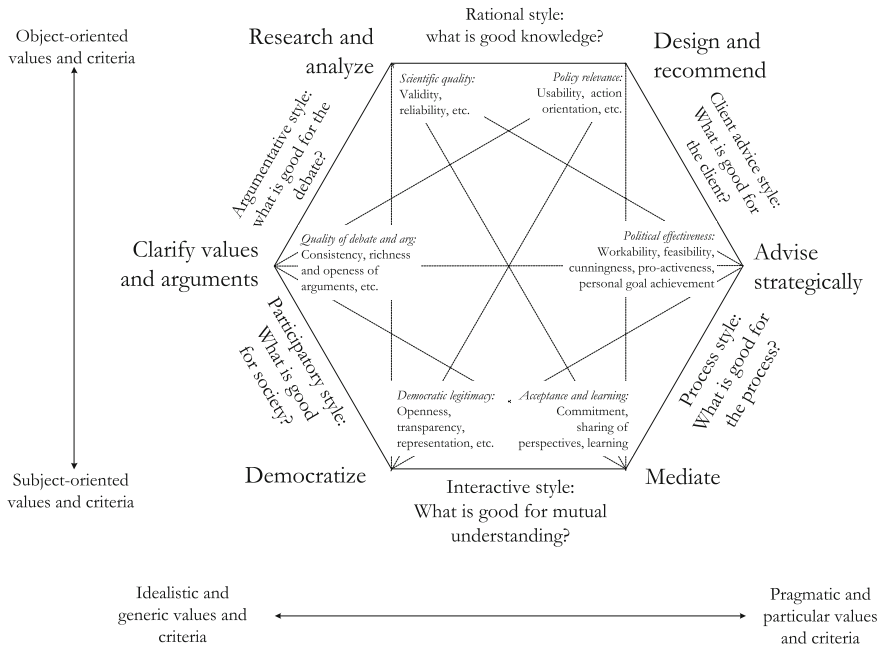

Fig. 3.4 Evaluation criteria for policy analysis activities

the interactions among citizens, stakeholders, the analyst, and the client. Whereas the top half activities are usually captured in a product—e.g., a report, a design, a computer model—the effects of the bottom half activities are usually captured in the quality of the process itself: increased support base, sharing of perspectives, citizenship, learning. The distinction 'object–subject' translates into the types of evaluation criteria to be applied. Object-oriented policy analysts will judge the quality of a policy analysis by its scientific rigor or the substantive insights it has yielded. Subject-oriented policy analysts will base their judgment on the contribution of the orchestrated interaction among the participants to the decisionmaking process. The pivot point between object and subject oriented activities lies with 'clarify values and arguments' and 'advise strategically'. These can be object-oriented, subject-oriented, or both.

Figure 3.4 also shows that the activities on the left-hand side are judged by generic scientific and socially desirable criteria, such as validity, reliability, consistency, fairness, equality, and openness. The activities on the right-hand side of the hexagon are judged by more pragmatic criteria, such as workability, usability, opportunity, feasibility, and acceptability.

These criteria for evaluating the quality of a policy analysis project or method are summarized in Box 3.7 and appear in the corners of the hexagon in Fig. 3.4. Note that these are illustrations of possible criteria. They are not meant to be a definitive, comprehensive list.

Box 3.7: Quality Criteria for the Activities

Research and analyze
The policy analysis will be judged by substantive (scientific) quality criteria, such as validity and reliability, the use and integration of state-of-the-art knowledge, the quality of data gathering, and the formal argumentation and validation of conclusions.
Design and recommend
The policy analysis will be judged by instrumental criteria of policy relevance, such as usability and accessibility for policymakers, action orientation and utilization, presentation and communication of advice, weighing up of alternatives, clear choices, etc.
Clarify values and arguments
The policy analysis will be judged by the quality of the argumentation and the debate. Some argumentation criteria are formal logic (consistency) and informal logic (rhetoric and sophism). Some quality of debate criteria are richness, layering, and openness of arguments.
Advise strategically
The policy analysis will be judged by pragmatic and political effectiveness criteria, such as the 'implementability' of the advice, political cleverness and proactive thinking, insight (for the client) into the complex environments (political and strategic dynamics, forces and powers), and the targeting and achievement of goals.
Democratize
The policy analysis will be judged by democratic legitimacy criteria, such as the openness and transparency of the policymaking process, representation and equality of participants and interests, absence of manipulation, etc.
Mediate
The policy analysis will be judged by external acceptance and learning criteria, such as the agreement that mutually independent actors reach on the process and/or content, support for and commitment to the negotiating process and the resulting solutions, and the amount of learning about other problem perceptions and solutions.

3.4.2 The Role of the Policy Analyst

While the hexagon model is based on activities, styles, and quality criteria, it can also be used to generate and organize positive and negative images, and even descriptive metaphors for the policy analyst (Dror 1967; Jenkins-Smith 1982; Durning and Osuna 1994). Some policy analysts allow themselves to be guided mainly by their wish to conduct objective scientific research; these are the *objective technicians*. In contrast, others are mainly focused on their interactions

Table 3.1 Positive and negative images of the policy analyst

Activity	Positive role image	Negative role image
Research and analyze	Independent scientist; objective researcher.	A-moral researcher; technocrat.
Design and recommend	Independent expert; impartial adviser.	Desk expert; 'back seat driver'.
Clarify values and arguments	Logician or ethicist; narrator.	Linguistic purist; 'journalist'.
Advise strategically	Involved client adviser; client counselor; policy entrepreneur	'Hired gun'
Democratize	Democratic (issue) advocate.	Missionary; utopian.
Mediate	Facilitator; mediator; process manager.	Manipulator; 'relativist'.

with the client; these are the *client advisers* or *counselors*. Some advocate a clear standpoint, such as a more stringent environmental policy; these are the *issue activists*. How the role of a policy analyst is perceived depends on one's own values and position in a policy process. A skilful strategic advisor, for example, may be highly appreciated by her client, but portrayed as a hired gun by her client's opponents. In Table 3.1, positive and negative images of the role of the policy analyst are depicted for each activity.

3.5 Perspectives on the Field of Policy Analysis

Figure 3.5 presents the complete conceptual model in which policy analysis activities are related to the underlying styles, the quality criteria, and the policy analyst's roles. The figure enables us to demarcate all manifestations and varieties of policy analysis, and also to develop new approaches and methods. Methods developed mainly within one style of policy analysis can be combined with insights from another style and adapted to new activities. Below, we briefly recapitulate the three functions of the conceptual model—demarcate, design, and evaluate.

3.5.1 Demarcation of Policy Analysis

Policy analysis is characterized by both ambitions and ambivalences. Some approaches complement each other, while others are somewhat in conflict, so it is very difficult to define and describe what policy analysis is. The added value of the hexagon model is that it makes it clear why policy analysis is ambivalent and

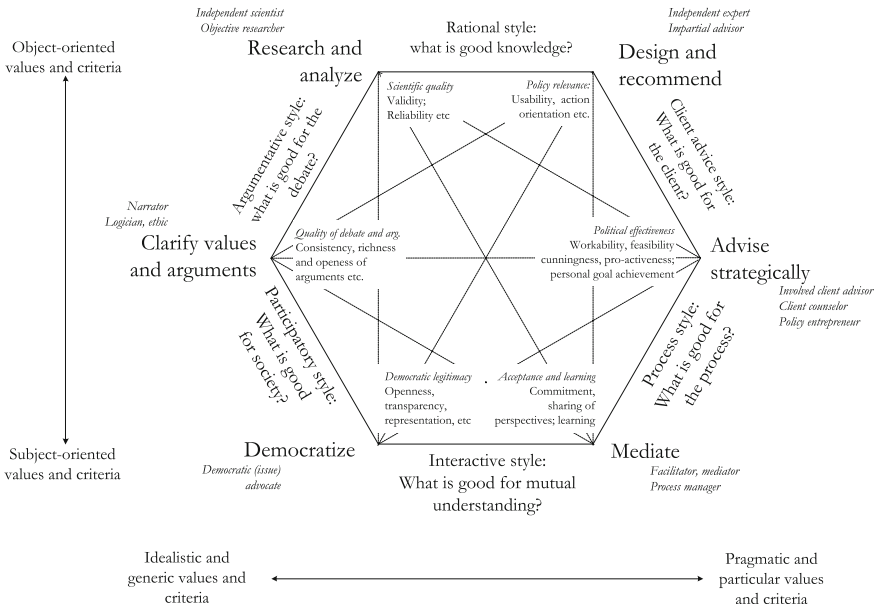

Fig. 3.5 Overview of the complete hexagon model of policy analysis

elusive—because the proponents and opponents reason from different points of departure about what they are doing, and why they are doing it, and because of the limitations, or conversely the richness, of the discipline. It is not our intention in this chapter (or in the book) to specify a preferred form of policy analysis, even if we were to have one. Depending on one's own position, one may accept the wide picture of policy analysis as depicted in the entirety of the model. But it is likely that many will argue that certain styles or activities are not (proper) policy analysis (e.g. Lawlor 1996; Walker 2009). For those critics, the hexagon may turn into a straight line, a triangle, or a square. The problem of course is that there will be no disciplinary consensus on what activities and styles to cut from the hexagon and on what grounds. For every policy analytic style there are both proponents and critics. Given the actual and desirable development of the various definitions of policy analysis, we are of the opinion that the discipline can better be defined too widely than too narrowly. The integrated conceptual model depicted in Fig. 3.5 offers full scope without losing the unity of policy analysis and causing the disintegration of the field. The model offers the possibility to examine policy analyses already performed and to relate these to each other. The model seeks to provide a foothold, or a framework, for demarcating the wide field of work, regardless of the name under which the work had been categorized.

3.5.2 Design of a Policy Analysis

The hexagon model provides an overview of the wealth of possibilities of policy analysis studies and the interrelationships among them, and can be of help in reflecting consciously and creatively on the design of a policy analysis. As a rule, policy analysis projects require a customized design. It is possible, however, to fall back on standard methods of policy analysis, although the choice and combination of methods will depend on the problem under examination. The model definitely does not seek to prescribe instrumentally how a policy analysis should be designed. The opposite is the case, because we advocate creativity and innovation in designing approaches, actions, and methods. Innovative combinations of researching, designing, recommending, mediating, argumentation, and democratization can be made.

For example, a rational style of policy analysis may be combined with a process style. This would 'interweave' analytical or scientific study in mediation processes among parties (de Bruijn et al. 2002). As a second example, the Institute for Water Resources (an organization within the US Army Corps of Engineers) recently developed a policy analytical approach for solving water resources management problems that it calls 'Shared Vision Planning (SVP)' (Cardwell et al. 2009). SVP is a collaborative approach that combines traditional 'research and analyze' and 'design and recommend' with structured public participation and collaborative computer modeling. Beall et al. (2011) explicitly relate SVP to the six policy analysis activities of the hexagon model.

We consider the design of a policy analysis to include the development of new methods of policy analysis so as to allow a good integration of subactivities. In point of fact, the history of policy analysis is characterized by the repeated application of creative and intelligent combinations of methods; methods that originated in one domain are commonly translated into applications for other domains. The, by now, classical Delphi method and scenario method came about as methods for studying the future, but are currently used for strategic advice, mediation, and even democratization in policy Delphis, interactive scenario methods, and scenario workshops (Mayer 1997). Cross-impact techniques and stakeholder analysis techniques, which came about as methods for advising clients, now have interactive applications and are used for mediation. Consensus conferences, which came about as a method for study and mediation among top experts in medical scientific controversies, have been transformed into methods for democratizing and for public participation (Mayer 1997; Fischer 2000; Joss and Belluci 2002). Also, methods that were developed within specific disciplines can be combined in a multidisciplinary approach to addressing practically any policy problem.

Because of the importance of designing a policy analysis, and the small amount of literature devoted to the subject, we devote two entire chapters to it (Chap. 5 and Chap. 6).

3.5.3 Evaluation of a Policy Analysis

Each policy analysis activity is based (implicitly) on criteria concerning the quality and purposes of the activity. Therefore, policy analysis projects can be judged from a variety of perspectives. This may lead to different opinions about success or failure, quality or shortcomings (Twaalfhoven 1999; Goeller 1988). A substantively thorough and valid study might be unusable for a client. A brilliant and workable compromise that breaks a stalemate may be based on negotiated nonsense or may violate or manipulate the interests of legitimate participants. Conflicts like these are inherent in almost every evaluation of large policy analysis projects. In the design and evaluation, the policy analyst attempts to cope as well as possible with these tensions and dilemmas, by making choices and/or by finding new routes.

3.6 Conclusion

This chapter has presented a conceptual model for policy analysis called the hexagon model, which is based on six archetypal policy analysis activities. This subdivision makes it possible to relate various policy analysis styles found in the literature to each other and to analyze the characteristics of and differences among the styles. Additionally, the activities provide pointers for evaluating policy analyses. By explicitly identifying the activities being carried out in the policy analysis, it is possible to identify success criteria for the work. The hexagon model seeks to map out transparently the enormous variety of different types of policy analyses and to allow them to be viewed in relation to each other. The model can also be used to design policy analysis studies. By making explicit which activities are relevant in a particular policy analysis, a conscious choice can be made for a certain policy analysis style and the policy analysis methods can be selected in a well-founded way for the contribution made by the method or technique to the activities to be carried out.

While the hexagon model provides pointers for reflection, design, and evaluation, it is not intended to be a rigid, prescriptive model. Rather, the intention is for the policy analyst to be consciously working on the goal of the analysis in relation to the policymaking process, and to produce her own policy analysis design and evaluation.

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