

Innovation in the Public Sector

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Policy learning, what
does it mean and how
can we study it?

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Policy Learning:

What does it mean and how can we study it?

PUBLIN project¹
Innovation in the Public Sector

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Some would like to understand what they believe in;
others would like to believe what they understand

—Stanislaw Jezy Lec

“There is a continuum of theories that agents can hold and act on without ever encountering events, which lead them to change their theories”

—Frank Hahn

“There is an ‘ecology’ of decision problems with earlier patters of decisions affecting subsequent decisions. This interlinkage would tend to carry sub-optimality through from one decision setting to another”

—Brian W. Arthur (199)

“Policy making is a form of collective puzzlement on society’s behalf”

—Heclo, 1974: 305

1. Introduction

The purpose of this paper is to discuss the notion of policy learning, which is believed to be important for public sector innovation as a *precursor* (possibly a necessary element) for public sector innovation and a possible *consequence* of innovations adopted, creating a new cause-effect chain. Policy, in the broad sense of the word refers to a program of actions adopted by a person, group of government, or the set of principles on which they are based. For the purpose of this paper, policy refers to the set of principles and the program based on these principles, but not on the actions themselves. Consequently, policy learning refers to a ‘change in thinking’, not any change in thinking but a structured, conscious change in thinking about a specific policy issue. The learning may consist of a rethink but most often will be something with an existing frame (such as a better understanding of the effects of certain policy instrument). An innovation refers to ‘change in doing’, that often is the consequence of a conscious change in thinking, but not always. Sometimes practices change gradually and only later when reflected on they lead to a change in thinking and to a change in policy. Governments can and do learn. What is being learned, to what effect, by whom and how is not so simple and quite difficult to establish.

The primary purpose of the chapter is to introduce the concept of policy learning, and to discuss how it may be recognised and studied. The chapter presents different types of knowledge and learning that can be used to analyse processes of policy learning. This will be illustrated by examples from health care case studies of PUBLIN, in particular the case study of innovation in mental health care in the Netherlands. The chapter does not go into all the ins and outs of various definitions. Time and space prevent us from offering such a discussion. For those who want to learn more about particular issues we refer to the references. The main aim of the chapter is to show how policy learning can be recognized and analyzed in practice using a combination of existing concepts and insights.

2. Knowledge

Learning is about knowledge, which is not the same as information. Information is a set of structured signals that enter human consciousness through the senses; it is a message containing structured data (Cowan, David, Foray, 2000). Knowledge is information that is meaningful to knowledgeable agents (Fleck, 1997: 384). This means that knowledge is *processed information*; in the processing, meaning is attached to information by connecting it to existing processed information (prior knowledge). What is being called information is a *selection* of some inputs of the senses (much input signals from the environment are not perceived, ignored or do not reach the level of consciousness). In order to make sense of any situation that is complex one must select out certain features and relations, which are taken to be the most relevant characteristics of that situation. These features allow one to create a story, which explains the situation in terms of causes and consequences. In knowledge activities (especially problem construction) there is a process of "naming and framing" (Schön and Rein, 1994), a topic to which we will return later.

There are different kinds of knowledge. Johnson and Lundvall (2001) distinguish between

- Know *how*: the ability to do something
- Know *what*: knowledge about facts
- Know *why*: knowledge about principle and laws
- Know *who*: knowledge about who knows what

Other distinctions are between *codified* and *tacit* knowledge (Cowan, David, Foray, 2000 and Johnson and Lundvall, 2001), *generic* and *specific* knowledge (Nelson), *individual* (or personal) knowledge and *collective* knowledge (Johnson and Lundvall, 2001). Collective knowledge is shared and generally encoded in institutional forms, such as norms, habits, laws. Culture can be viewed as a form of collective knowledge. Codified knowledge is explicit and can be stored and transferred as information (Johnson and Lundvall, 2001). An example is a computer programme. Formal knowledge is always codified. Tacit knowledge is knowledge rooted in practice and experience that is hard to articulate or communicate in codified form; it is implicit and wholly embodied in human individuals transmitted by apprenticeship and training (cf. Fleck, 1997; Lam 1998: 4).

According to Cowan, David, Foray (2000) codification is a matter of effort; most knowledge (for example how to ride a bike) can in principle be codified. Codification of knowledge helps to transfer lessons but may not always produce the best results.

Codification of information and knowledge: a trade-off?

In the Dutch case study of innovation in mental health care (in the form of patient-centered care) an important part of the innovation consisted of making implicit knowledge explicit, codifying knowledge of employees and processes in protocols for diagnosis and treatment, supported by electronic patient files that enabled efficient 'through-put' of patients moving from one to another module of the care process. By making knowledge involved explicit and codified, it could be shared and it could be scrutinized and revised more easily when new insights from science or practice emerged. The trade-off of the codification of knowledge was a diminished identification of people with the knowledge, less 'ownership' of patients and problems, and the need for active internalization of the explicit knowledge by employees. Whether codification and standardization has a positive effect on the implementation and adoption of the innovation depends crucially on the way it is done. If employees feel substitutable and merely executors of protocols, they may be discouraged from personal inquiry into patients problems and learn useful lessons.

An important distinction is between individual learning, organisational learning and social learning. This seems pretty straightforward but in reality is not so easy as they are interrelated: for an organisation to learn individuals in it should learn and it is hard to say what counts as organisational learning and what as individual learning.

Organisations are the social groupings of individuals within which learning occurs, and the institutional forms that stabilize and transmit the resulting lessons (Clark). When collective learning extends individual companies we may talk about *social* learning. Social learning is often about values and other 'higher-order' properties such as norms, responsibilities, goals, and the framing of issues in terms of causes and effects selected for attention (Clark). It is less about truthful, scientifically validated knowledge being learned. An example of social learning is the view that individuals as consumers are

being responsible for own health or that the use of new public management principles helps to improve public sector services and reduce costs (things which are not necessary true).

Knowledge may be explicit or implicit, individual or collective, as noted above. A useful way of labelling combinations of such knowledge is done by Lam (2000).

Figure 1. Cognitive Level: Knowledge Types

		Ontological Dimension	
		<i>Individual</i>	<i>Collective</i>
Epistemological Dimension	<i>Explicit</i>	Embrained Knowledge	Encoded Knowledge
	<i>Tacit</i>	Embodied Knowledge	Embedded Knowledge

Source: Lam (2000)

Embrained knowledge is knowledge that is dependent on conceptual skills and cognitive abilities of the individual. It is formal, abstract or theoretical knowledge. It is knowledge that can primarily be obtained through formal education and training, in other words, ‘learning-by studying’.

Embodied knowledge is tacit-individual knowledge, coming from experience. It is context specific, based on hands-on-experience and ‘learning-by-doing’.

Encoded knowledge is knowledge that is codified and stored in blueprints, recipes, written rules and procedures. It is collective-explicit.

Embedded knowledge is the collective form of tacit knowledge residing in organizational routines, practices, values, norms and the shared beliefs.³ It comprises the unwritten rules of the game (Scott-Morgan, 1994). This type of knowledge plays an important co-ordinating role but it is often hard to point out. Embedded knowledge is relation-specific and situated.

Lam (1998) uses the above knowledge-combinations to typify organisations and to talk about organisational learning and innovation.⁴

³ The above descriptions are taken from Lam (1998), published in Lam (2000).

⁴ Descriptions are from Lam (1998), published in Lam (2000).

Figure 2. Organisational Level: Co-ordination and Learning

		Knowledge agent (Autonomy and control)	
	Standardization of knowledge and work	<i>Individual</i>	<i>Organisation</i>
<i>High</i>		Professional Bureaucracy	Machine Bureaucracy
<i>Low</i>		Operating Adhocracy	J-Form Organisation

Source: Lam (1998)

Organisations in which ‘embrained knowledge’ is important are typified as “professional bureaucracy”. They are bureaucracies that derive their capability from highly trained individual experts. Co-ordination is achieved ‘by design’ and by standards that predetermine what is to be done but within this, individual professionals are quite autonomous. Examples are universities, hospitals and craft production firms. The learning focus is narrow and constrained within the boundary of formal specialist knowledge with corollary implications for innovation.

An organisation that depends heavily on ‘encoded knowledge’ can be defined as a “machine bureaucracy”. The key organising principles are specialisation, standardisation and control. It is an organisational form designed to achieve efficiency and stability. Mass production firms are an example. The implications for innovation are not given by Lam.

Organisations in which embodied knowledge plays a key role are called “operating adhocracy”. Such an organisation draws its capability from the diverse know-how competencies and practical problem-solving skills embodied in the individual experts. The administrative function is fused with the operating task, giving the individual experts a high degree of autonomy and discretion in their work. It also leads to a close integration of technical and managerial expertise. There is a suggestion that such firms are relatively good at radical innovation.

An organisation that derives its capability from knowledge that is embedded in its operating routines, team relationship and shared culture is termed a J-form organisation (J standing for Japanese). The J-form organisation combines the stability and efficiency of a bureaucracy with the flexibility and team dynamics of an adhocracy. J-firms are good at collective learning but the learning is potentially conservative. The J-form organisation is good at sustained innovation but may find it difficult to innovate radically.

In this scheme innovation is thus linked to knowledge and learning. The extent and form of innovation depends on the characteristics of the knowledge involved in the innovation, and the characteristics of the innovating organization.

3. Different types of learning

There is an enormous literature on the topic of organisational learning, with even specialist journals dealing with learning such as “Organizational Learning” and “Management Learning”. There is no generally shared concept of learning (Easterby-Smith, 1997) but a number of different definitions of learning. A dictionary definition is that it is acquiring knowledge or skill through study, experience or teaching. According to Huber (1991) an entity learns if, through the processing of information, *the range of its potential behaviours is changed*. This learning may be due to new knowledge or experience. But people may also learn about values, goals and the framing of issues—issues that are important for policy and possibly innovation. In the policy literature it is quite common⁵ to think of learning as a *change in the habit of thought*, i.e. a changed view rather than an increased capability thanks to new knowledge.

What is being learned will depend on the problem at hand and characteristics of the organisation and wider environment. This environment of the ‘learning organisation’ consists of the links of the organization with other knowledge holders (supplier, users, knowledge institutes), the functional system of which the organisation is part and of course society as a whole: the values, beliefs, opinions. The practices of an organization must be in line with generally accepted values and beliefs, as Shell discovered through the Brent Spar affair (which amounted to the dumping of an oil platform (in deep sea) in a society educated to recycle its waste).

An important aspect of the internal learning environment is the organizational culture. Organizational culture encapsulates the experiences of past employees and is very important in determining learning processes; out of the diversity in humans’ experiences results a wide variety of patterns of behaviour and thought, which is a source for learning, also referred to as *cultural learning* (North 1993).

Learning is coloured by organisational views, interests and organisational culture and that learning is often a function of individual and organisational goals and incentives. Learning is not just an informational process. Argyris and Schon (1978) have shown how people filter and manipulate information flows: employees avoid passing on negative information to their superiors, they try not to be too closely identified with new projects in case they fail, and managers involved in decision-making frequently employ information selectively in order to legitimate decisions reached on “other grounds” (Easterby-Smith, 2000, p. 1092).

Policy learning is a form of collective learning, since policy is designed and implemented by a range of organizations. In that respect, policy learning as a topic for research is closer to the literature on organizational learning than the literature on individual learning. An important aspect of policy learning is that it generally involves learning not of one organization but of a number of organizations. This adds complexity in terms of who learns what and why, since there is not only interaction between

⁵ It is common for the tradition pioneered by Hecló (1974) and Sabatier (1993; 1987).

individual frames of thinking in an organization but also interaction between collective frames of thinking of different organizations.

Sabatier (1993, p.19) defines policy learning as *a relatively enduring alteration of thought or behavioural intentions that are concerned with the attainment (or revision) of the precepts of a policy belief system*. The advantage of this definition is that it transcends an information-based view of learning, by taking on board alterations in frames, values and meanings. Please note that changes in values, frames and meanings may have very little to do with truth.

A second advantage is that it is more conducive to analysis than information-based definitions. To make it more operational and precise it is useful to distinguish between 3 types of policy learning:⁶

- *Instrumental learning*: Technical learning about instruments – about effects how the instruments may be improved to achieve set goals;
- *Conceptual learning* or *problem learning*: seeing things from a different evaluative viewpoint (in a ‘new light’); this is when the outlook on a ‘problematique’ changes⁷; it is called conceptual learning because it tends to be accompanied with the development or adoption of new concepts, principle and images.⁸
- *Social learning*: learning about values and other ‘higher-order’ properties such as a norms, responsibilities, goals, and the framing of issues in terms of causes and effects selected for attention (Clark).⁹

The first type of learning amounts to *single-loop* learning—learning that does not question the fundamental design, goals and activities of the organization; the last two types of learning (conceptual learning and social learning) are instances of *double-loop* learning (Argyris, 1976).¹⁰ The last type of learning occurs when there is a “rethink” leading to a change in ‘theories-in-use’.¹¹ Double loop learning usually requires a crisis

⁶ The concepts are taken from Glasbergen (1994, 1996). A related distinction is the distinction of Hall (1988) of policy learning into 1st order, 2nd order and 3rd order learning. Third order learning involves changes in the hierarchy of goals behind a policy. Note that technical learning in the policy realm amounts to “instrumental learning”, i.e., learning about instruments of policy. This type of learning is often based on experience and evaluation. Conceptual learning is about goals and perspectives. Learning affects thus both ends and means. Learning about ends is perceived to be of a higher order.

⁷ For example when a company or government organisation redefines its ‘business’ and sees things in a “new light”. An example of conceptual learning or problem learning is the view that government responsibilities should be devolved to lower levels of government or that government financing systems must be changed. Another example is when waste started to be viewed as a “waste of resources” rather than something for disposal.

⁸ An example is the “waste ladder” representing a hierarchy in waste management options with prevention at the top and uncontrolled disposal at the bottom.

⁹ The dividing line between conceptual learning and social learning is not always clear. Does the view that waste is a resource constitute an example of conceptual learning or of social learning? Is the concept of sustainability a conceptual innovation or an example of social learning? It could be argued that both are examples of social learning because it goes beyond policy network actors. Taking a more integrated, cross-medium approach in environmental protection in environmental policy networks is an example of a conceptual learning. A discussion and illustration of the three types of policy learning is given by Fiorino (2001) for the case of environmental policy. Comparing the US with Europe, Fiorino (2001) finds that the legalistic tradition in the US is hampering social learning.

¹⁰ Related concepts are lower-level and higher-level learning (Fiol and Lyles, 1980) and adaptive and generative learning (Senge, 1990).

¹¹ In a later work Argyris and Schön also talk about *deutero*-learning, which is when members of an organization reflect on past contexts for learning and develop new strategies for learning. One could say that deutero-learning is the institutionalization of learning.

or revolution because organizational actors are acculturated to be primarily single-loop learners (Argyris and Schön, 1978).¹²

¹² Swieringa and Wierdsma (1992) distinguish between single-loop, double-loop and triple-loop learning. Double-loop learning is a rethink of existing rules and triple-loop learning is a rethink of principles and purposes; here the rationale for the organization as a whole is questioned, particularly the mixture of internal desire and identity and the relationship with the external environment. The latter is subsumed by Argyris under double-loop learning.

Changing problem perceptions: the Dutch WAO disability benefits system

In the Netherlands at the end of the 1990s almost one million people were officially disabled. 1 out of 11 of the 20 to 64-olds were receiving disability benefits—the highest number in the world together with Norway.

The steady increase initially was seen as the result of the calculated choices of employees, labour unions and employers who all stood to gain from the disability benefits system introduced in 1967. For the employers it was a way of getting rid of less productive people, who were receiving generous social security benefits, something which satisfied the recipient and pacified the labour unions. As a result of this, the WAO got—as policy-makers called it—‘polluted’ by employees actually belonging to another social security arrangements (such as unemployment or early retirement), *and* by persons not belonging in any social security arrangement at all (those who could and should work). In 1993 the number of WAO-people was almost one million, far above the expected maximum of 200,000 people when the WAO law was introduced in 1967.

The long-proposed solution, introduced in the 90s, was to change the WAO arrangement: to make it less financially attractive and to better check the medical conditions of people claiming disability benefits. This policy seemed to work to some extent, at least initially: the number of officially disabled people decreased for 3 subsequent years: between 1993 and 1996, from 921 to 855 thousand, following a change in the WAO law, after which however it started to increase again to 924 thousand in 1999.

A second explanation, slowly gaining ground, was that the WAO is a kind of institutional trap: once you are in, it is difficult to get out. The perception of the problem changed: the focus now was on the difficulty to get out. The proposed solution was to periodically check the disability, activate disabled people and help people to reintegrate. Policies to this effect were introduced in the late 1990s.

A third more recent explanation is that work itself has become more stressful, resulting from changes in the nature and organization of work due to sharpened productivity demands. This view implied that the earlier reforms were addressing symptoms instead of the root of the problem. This led to policy attention for better working conditions and penalties for companies whose employees become disabled.

In the past 30 years, not only the explanations for disability entry changed but perceptions of the people in the WAO also changed: people originally were viewed as *victims* of unhealthy working conditions but increasingly came to be viewed as *villains*, people misusing the system; and then again as victims.

The changes in problem perception and views on appropriate policies paralleled changes in the composition of people officially disabled. Whereas in the 1970s, the typical WAO-person was an older male with physical complaints, the typical WAO-person now is a relatively young woman with psychological complaints.

The idea of a hierarchical structure in beliefs fits with Sabatier (1993) who talks about *policy core beliefs* and *secondary policy belief* aspects, saying that policy core beliefs (of advocacy coalitions) are very stable. Sabatier worked out a theoretical model of policy change that combines a conflict resolution (power) approach with a learning approach. In this approach, what is being learned depends on the power relations but cannot be solely understood from the (changing) division of power. The idea of learning

being a source of policy change goes back to Hecló, who said that “politics finds its sources not only in power but also in uncertainty—men collectively wondering what to do. Policy making is a form of *collective puzzlement* on society’s behalf” (Hecló, 1974: 305).

A description of the structure of belief systems according to Sabatier and his co-operators is given in the below table. The structure of belief systems applies both to policy elites and to government programmes, according to Sabatier and Jenkins-Smith (1993).

Table 1. The structure of belief systems

	Deep Core	Policy Core	Secondary Aspects
Defining characteristics	Fundamental normative and ontological axioms <i>Examples:</i> The nature of man: inherently evil or socially redeemable; the relative priority of various ultimate values: freedom, security, health, knowledge	Fundamental policy positions concerning the basic strategies for achieving core values within the subsystem <i>Examples:</i> Identification of key issues and groups whose welfare is of greatest concern; proper distribution of authority between government and market; proper distribution of authority among levels of government; priority accorded to policy instruments (regulation, covenants, economic instruments); technological optimism vs. pessimism	Instrumental decisions and information searches necessary to implement policy core <i>Examples</i> Seriousness of specific aspects of the problem in specific locales; causal links; efficacy of administrative rules, and policies, appropriateness of funding arrangements and budgets; statutory interpretation
Scope	Across all policy subsystems	Specific to a subsystem	Specific to a subsystem or a sub-subsystem
Susceptibility to change	Very difficult; akin to a religious conversion	Difficult but can occur if experience reveals serious anomalies	Moderately easy; this is the topic of most administrative and even legislative policy making
Type of learning	Social learning	Problem learning, social learning	Instrumental learning

Source: adapted from Sabatier and Jenkins-Smith (1993, p. 221)

The organisational studies and studies of policy learning are very much concerned with the effects of organisational learning; they are less concerned with a detailed analysis *how* people actually learn. Learning may occur through:

- *experience* (learning-by-doing and learning-by-using)
- *observation of others* (learning-by-observing) and
- *systematic study* (learning-by-studying or learning-by-learning)
- *interaction* (learning-by-interacting)

Different types of knowledge are learned through the learning mechanisms. Tacit knowledge is usually obtained through experience, and explicit knowledge through systematic study.

The issue of how people actually learn is studied more deeply in the specialized literature on learning that goes into the mental process of learning and the stimuli for learning. It is said that individuals and organizations do not learn by simple trial-and-error, which is an inefficient, often cumbersome way of learning. To learn, people typically abstract from their experiences to discover more general principles that they then translate (apply) to another, concrete context. This is only partly a conscious exercise.

Generalization refers to the phenomenon that certain behaviours found successful in coping with a certain task are internalised, and used in other spheres of lives also – unless it turns out that they are not fit for these and then they are modified or new ways of coping are developed.

This is also called representational redescription: reasoning from the particular to the general and use of analogy (Bowles 1998).

Dissonance reduction is an important mechanism for learning as far as selective perception and dominant interpretation is concerned. People have a need for their reality to be in harmony with their thoughts about reality. If not, they feel uncomfortable and strained. They can either (try to) change reality to make it more fit to their ideas, or change their ideas to make them more fit to their reality (Akerlof 1982; Wood and Bandura 1989).

Within both economics and organization science there is an interesting tendency to incorporate a *cognitive approach* to the subject of organizational learning. Examples are Nooteboom's (1999) 'logic of abduction' model based on the notion of a script from cognitive science; Wood and Bandura's (1989) social cognitive theory of organizational management; Walsh (1995) on managerial and organizational cognition; Harris' schema-based perspective on organizational culture (1994); Neck and Manz (1996) on the impact of mental strategies on employees (1996); Denzau and North on mental models, institutions and ideologies (1996).¹³ So far it has not been applied in the study of policy learning, as far as we know.

A strong feature the advocacy coalition framework (ACF) research tradition is that it advanced a set of propositions about policy learning, such as:

- An actor (or collation) will give secondary aspects of a belief system before acknowledging weaknesses in the policy core (hypothesis 3 of the Advocacy Coalition Framework, Sabatier, 1998).
- Policy-oriented learning across belief systems is most likely when there is an intermediate level of informed conflict between the two (hypothesis 6).

¹³ Within the organisational literature growing attention is given to tacit knowledge, a very important but hard to control form of knowledge; examples are the publications on organizational routines as a form of procedural memory by Cohen and Bacdayan (1994) and organizational routines as grammars of action by Pentland and Rueter (1994). Related to this is the literature on motivation, incentive systems and the psychology of change, for example Hirshleifer and Welch on 'inertia' (2001), Thomas and Velthouse on 'cognitive elements of empowerment' and its effect on intrinsic motivation (1990), Bowles, Gintis and Osborne on 'Incentive enhancing preferences' (2001).

- Problems for which accepted quantitative data and theory exist are more conducive to policy-oriented learning across belief systems than those in which data and theory are generally qualitative, quite subjective, or altogether lacking (hypothesis 7).

The propositions have been tested by Sabatier and others in a series of studies. The studies support the ACF's argument that technical information and formal policy analysis are generally used in advocacy fashion (Sabatier and Jenkins-Smith, 1993, p. 218). Information is thus used in a partisan manner—at least by some actors—a conclusion that should not surprise us and certainly will not surprise organizational sociologists. Information-based approaches may be criticised for leaving out politics and power issues and social group identity issues.¹⁴

Sabatier does not say that information is unimportant as a source of learning and policy change. He just points to the importance of beliefs, advocacy coalitions and policy brokers and key governmental officials. Different coalitions have technical information resources, which are strategically employed. Arbitrators are needed for arriving at policy choices. This fits with Gormly (1986) who said that when the policy dispute is characterized by high technical complexity and intensive political conflict, senior agency officials (and probably legislative committee staff) play a critical role because they are the actors most likely to understand both the technical and political aspects (Sabatier and Jenkins-Smith, 1993, p. 219). The influence of data will be higher when the problems is well-structured and less about values (cf. hypothesis 7 of the Advocacy Coalition Framework, Sabatier, 1998).

Public opinion may come into play as well but Sabatier and Jenkins-Smith say that the main influence of the public on policy acts is in limiting the range of feasible strategies, rather than positively determining the details:

“We continue to maintain that the general public has neither the expertise, nor the time, nor the inclination to be active participants in a policy subsystem; that role is reserved for policy elites. Public opinion can, however, constitute a substantial constraint on the range of feasible strategies available to subsystem participants (...)” (p. 223).

In PUBLIN we did not test the propositions of the ACF but instead examined a number of propositions about public sector innovation and policy learning. Three hypotheses had to do with policy change and learning.

- There are significant differences between “top-down” (i.e. policy-led) innovations and “bottom-up” (i.e. demand/practice-led) innovations.
- Innovations at service level in the public sector that depend on intergovernmental coordination for diffusion require direct political intervention, or stimulus by a crisis situation
- Innovation in the public sector is not the result of a passive process adaptation of R&D based findings at service level, but the product of complex processes and interactions between policy makers and related agencies and organisational constituents at service level.

¹⁴ Argyris and Schön (1978) found that information is typically filtered and manipulated for self-serving purposes. Managers involved in decision-making frequently employ information selectively in order to legitimate decisions reached on “other grounds” (quoted from Easterby-Smith, 2000, p. 1092)

The first and third hypotheses were confirmed. The second hypothesis we could not really investigate well because most innovations studied did not depend on intergovernmental coordination.

4. The influence of policy analysis and framing on policy

An interesting topic is the influence of researchers on policy change. Koch et al. (2002) found that policy development in innovation policy is not a simple transformation of findings from innovation research into policy. In the policy realm (which transcends government) there are intricate social rules, conflicting worldviews, intense power struggles, and uneven levels of competence and funding (Koch, Hauknes and Roste, 2002). These together determine the way a policy problem is ‘framed’.

The frame of reference of policy makers generally is different from the frame of reference of policy-analysts and researchers doing policy-relevant research. Jenkins-Smith and Sabatier, (1993) point out that substantial cultural differences impede interaction between researchers and government officials (also Dunn, 1980; Webber, 1983). Policy analyses are often used in a partisan way¹⁵, to enhance organizational credibility, occupy “turf” and delay undesirable decisions (Rein and White, 1977; Jenkins-Smith and Weimer, 1985). It is being said that if researchers and policy analysts wish to have a significant impact on policy, they must generally abandon the role of “neutral technician” and instead adopt that of an “advocate” (Eltzner, 1976; Jenkins-Smith, 1982; Nelson, 1987).¹⁶ Research suggests that in order to have an appreciable impact on policy, analysts should dress policy proposals in language that policy makers can understand and can act upon (Koch et al. (2002). This requires an understanding of the policy world as an own reality or “life world”.

Public sector innovation depends on belief systems. Policy beliefs are important for public sector innovation in *framing* problems and directing attention to particular solutions. A decision will be made in one way if it is framed as problem of maintaining profits and in a different way if it is framed as a problem of maintaining market share. A situation will lead to different decisions if it is seen as being about “the value of innovation” rather than “the importance of not losing face” (March, 1994: 14, added italics). The role of frames in policy making is a topic of much recent research in political science and public administration (examples are Surel, 2000; Kohler-Koch, 2000). Koch et al (2002) talk about “rationalities” and “mentalities”: rationalities have to do with understandings of reality of culturally and socially defined groups; mentalities are “supra-rationalities” grounded in beliefs, philosophies, ethics, myths, which suggests that they are shared outlooks and normative views typical for a certain time and age.

Problem structuring (Rosenhead and Mingels, 2002) is thus an element in learning. Problem definitions should not be taken for granted, as having an objective ground. They reflect the viewpoints and interests of the relevant actors, which are connected to actor “life worlds”—their experiences and professional and cultural background (Koch

¹⁵ Policy-makers tend to show a certain degree of ‘shopping’ behavior: taking selectively that which supports their existing ideas or interests),

¹⁶ Taken from Jenkins-Smith and Sabatier (1993, p. 4)

et al., 2002). Everything can be argued to be a problem: the quality of health service provided, who is providing it (a private or public hospital), what it costs, who pays for it, an individual's right for having this service (in his home town or even at home), the allocation of money to this service and at a larger level even the allocation of money to public health instead of education.

The need to meet the concerns of all parties

In Sweden the Astrid Lindgren Children's Hospital (ALB) introduced a system of Advanced Care of Children in Their Homes (SABH). Through SABH seriously-ill children were offered hospital-at-home health care 24 hours a day according to the needs of the child. The care is managed by a professional mobile medical care teams, consisting of a paediatrician, a medical social worker, a senior nurse and a assistant nurse/paediatric nurse. The care is supported by IT for mobile use and the work is organized and co-ordinated from a management centre at the hospital.

The innovation promised to offer better care at lower costs but met with a lot of resistance from medical specialists and management who doubted these aspects. For management the overriding concern was to reduce costs and the innovation was under constant threat. Supporters mobilised political support and support from parents to keep the innovation alive. An evaluation showing lower costs of treatment compared to hospitalisation proved crucial in getting top management to accept the innovation. All the actors had different concerns, a common phenomenon. Luckily the innovation was able to meet all concerns.

The role of crisis and reframing in learning and innovation

In the Dutch case study, the management of a psychiatric hospital decided to implement a major innovation: the implementation of so-called care programmes (“zorgprogramma’s”). This is a patient-centered, process-oriented, evidence-based approach, which involves major changes in the care chain. A newly hired experienced manager from outside of the health care sector was willing to take up the task to prepare an innovation plan for and with the organisation, he was the innovation ‘entrepreneur’ in the process. There was considerable resistance to change, especially from the side of the psychiatrists, who up until then were king in their own kingdom and did not feel like giving away power to professional managers. At some point the innovation process was slowing down, it was very hard to get from the conceptual phase to the phase of actual implementation.

Then a crisis hit the organization: there were serious financial problems due to mismanagement of the director. The director had to resign and the ‘entrepreneur’ of the innovation process was appointed as the new director. The crisis made the personnel including the psychiatrist see that they needed to change in order to survive as an organization and this facilitated the implementation of the innovation. It changed their perspective dramatically. Instead of seeing the innovation as an unwanted change involving more effort of the personnel and representing a threat to the positions of the psychiatrists, it now was seen as a solution that could save the organization and the people working in it.

A crucial element was to gain the trust and confidence of the employees in the time of crisis. The ‘innovation entrepreneur’ recognized the crisis as a ‘window of opportunity’ to get acceptance and support of structural organizational changes. It involved substantial management skills to take away the distrust; many employees in the health care sector are cynical, seeing innovation as a hidden attempt to simply cut costs. An acute crisis however changed the view of “we” (the employees) against “them” (the management) into a “we” (the organization as a whole, together) against “them”(the financing institutions of health care). The new director made sure that the organization did not perceive him as an agent of “them”. The reframing was important for increasing the willingness to change. The wider institutional structure was conducive to innovation because the main financial agency involved offered an arrangement to deal with the financial difficulties on condition of a plan of how things would be done differently and better. Because of all this the innovation still goes ahead.

6. How to study policy learning?

An overview of the literature on policy learning is given by Bennett and Howlett (1992). The discussion of the literature is structured according to three questions: *who* is learning, *what* is learned and *to what effect?* The authors make a distinction between three types of learning: government learning, lesson-drawing and social learning. Table 2 presents the three types of learning identified in their review of the literature and their relationship with policy change

Table 2. Learning and policy change

	Who learns	Learns what	To what effect
Learning type			
Government learning	State Officials	Process-related	Organizational Change
Lesson-drawing	Policy Networks	Instruments	Programme Change
Social Learning	Policy Communities	Ideas	Paradigm Shift

Source: Bennett and Howlett (1992)

The table should not be taken literally. State officials may engage in lesson-drawing just as policy networks may be concerned with organisational change besides programme change. Policy networks will be more inclined to lesson drawing than others because they are facing practical issues of instruments. But as said, lesson drawing is a more general phenomenon, as are changes in mental models. Policy network actors may experience a paradigm shift, as happened with water authorities that are now concerned with integrated water management.

There is not much literature on the issue of policy learning. Jenkins-Smith and his co-operator Sabatier are among the few people who have seriously looked into this issue in their book *Policy Change and Learning*. An ‘Advocacy Coalition Approach’ contains a scheme for analysing deep core beliefs, policy core beliefs and secondary beliefs for the purpose of analysing the beliefs of advocacy coalitions. The scheme is presented in a methodological appendix called “Measuring longitudinal change in elite beliefs using content analysis of public documents”. This may be useful for analysis of advocacy coalition but what we really need is something more simple and linked to innovation.

For studying policy learning we have the following 4 suggestions. First the analyst should make a distinction between three types of policy learning: technical learning (about instruments), conceptual learning (about goals, strategies) and social learning (about societal values, responsibilities, appropriate ways of interacting, policy approaches). Attention should be given to their interaction.

Second, they should try to establish *what is being learned*. This can be done by asking actors directly or in an indirect way by analysing statements, verbal ones and memos (content analysis). In doing such an analysis they have to be aware that stated reasons and beliefs might not represent the real ones. Argyris (1986) discovered that there is often a conflict between what people say they believe and the evidence from their actions (espoused theory vs. theory in use). Although people often claim to have learned new ideas and practices this is frequently not manifested in their behaviour (Easterby-

Smith, 1997, p.1089). The inconsistency may also be deliberate. In analysing documents one should make a distinction between (Manheim and Rich, 1986, p.152):

- a. Internally generated and internally directed documents such as internal memos (representing and reflecting the decision making process itself).
- b. Internally generated and externally directed documents such as policy white paper (reflecting or obscuring the process or outcome of decision making).
- c. Externally generated and internally directed documents such as commissioned studies undertaken by third parties (providing source material for decision makers).

Third, the analyst should try to establish *how* the actors learned something – both technical, conceptual and social: experience without special study (learning by doing), observation of others (lesson-drawing), or specially commissioned studies.

Fourth, the analyst should examine *what role this learning played* for the policy change and for the public sector innovation studied. In explaining policy change one should compare learning explanations with socio-economic explanations, power explanations and institutional explanations. There is a dynamic process that may lead to completely unintelligent choice, as in the case of the poll tax in England (John, 1998). One has to reconstruct the process, map out the causal-effect chains, determine the mileage of different explanations (cf. John, 1998). Special attention must be paid to institutions, ideas and interests (3Is) as these are the least observable. To give an example, if there is not much change in economic conditions and no changes in power relations and institutional rules than policy change probably is due to (internal) learning but you have to find evidence of such learning. In situations where many variables change, one has to go more deeply into the decision-making processes, looking for instances of instrumental learning, conceptual learning and social learning. In general one has to take a wider system perspective and take a longer-term view. Policy level changes may not appear relevant for a certain innovation decision in an immediate sense (by calling forth the innovation) but on closer look may appear quite important by opening the decision space (opportunity set) by legitimising certain programmes and actions or by pressuring public sector organisations to deal with a certain problem.

Special attention should be given to frames, which are the result of social construction and the interaction between solutions and problems. Problems are not formulated independent from solutions and the interests connected with these solutions.

Environmental standards are based on technologies being available. According to Popper, solutions are rationalised in terms of stated problems and not necessarily discovered or being found after the statement of a problem (Popper, 1979). We have thus problems looking for solutions and solutions looking for problems.

Attention should be paid also to the solutions not adopted. One should not assume that the best possible option is adopted and examine the role of knowledge, interests and effects in the process of innovation. Technological innovation in the public sector should not be viewed as a straightforward decision on the basis of costs and benefits. Certain problems get singled out, channelling attention and resources, at the expense of other problems

The solution being adopted will depend on the incentives system in place and organizational culture. Perverse incentive systems will lead to perverse solutions.

Perverse incentive systems lead to perverse results

In the Dutch health care sector, the incentives to improve health care to make it more efficient and effective have been rather unsophisticated for a long time, coming straight from government bureaucrats not closely in touch with the reality of health care organizations. This has led to 'perverse incentive structures' leading to strategic behavior at the service level. In the Dutch case study, health care revenues are linked to a system of measurement of medical services. An important measure is the time that a patient spent in treatment in the psychiatric hospital. Short-term treatment was rewarded. Under such a measurement system, it was financially better to get people out of the hospital as fast as possible. The fact that these people after that made much more demand on other types of health care which would have been less if they had been treated longer in the psychiatric hospital did not show up in the statistics of policy makers. Even if the same patient returned to the hospital after a period, he was registered as a new patient.

One can see how this can lead to unintended and even perverse effects. It is in the interest of the psychiatric hospital not to cure the patient so that the patient will return in the future for more treatment, hence increasing the financial reimbursement of the hospital.

There are clear obstacles to learning in the public sector. Although learning is a normal human phenomenon there are significant obstacles to learning within the process of government and policy making. According to Chapman (2002, p. 13) the most important obstacles are:

- An aversion to failure, exacerbated by the political process which uses failure to score points rather than learn lessons
- The pressure of uniformity in public services.
- Shared assumptions between civil servants and ministers that command and control is the correct way to exercise power.
- Lack of evaluation of previous policies.
- Lack of time to do anything other than cope with events.
- A tradition of secrecy used to stifle feedback and learning.
- The dominance of turf wars and negotiations between departments, effectively making end-user performance secondary to other considerations.
- The loss of professional integrity and autonomy under the knife of efficiency in policy making, and resistance and protection of vested interests by some professional and intermediary bodies

The barriers have to do with mentalities, tradition and with power by obstructing learning feedback. Deutsch (1963) famously remarked that those in power can afford not to learn (From foreword by Hoppe in Eberg et al., 2002).

7. Conclusions

This chapter has introduced a number of terms, concepts and theories that can be used to study policy learning in the public sector. Policy learning is different from other types of learning, and though the literature on individual and organizational learning offers many important and useful insights, it needs to be combined with other literature from disciplines such as political science in order to be applied to the full range of policy learning. The theory on policy learning has many intellectual roots, and is to some extent still 'under construction'. A further integration of cognitive, organizational and

political science, in combination with the theoretical frameworks and findings in innovation studies, can lead to further strengthening of theory of policy learning, increasing its coherence and applicability. We are still far from a theory of policy learning. To build a theory more empirical work on policy learning is needed. Studying policy learning in practice should give important input to theory-building, especially on the aspects that are specific of policy learning which involves individuals and networks of organizations rather than individuals within a single organization. In writing this chapter we learned something. One thing we learned is that there is still much to be learned about policy learning.

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